

\* UMASS/AMHERST \*



312066 0333 2963 9



**UNIVERSITY OF MASSACHUSETTS  
LIBRARY**

---

---











# CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

Vol. 44, No. 1

January 1980

S

SB  
883  
27  
Per



**fruitworm control . . . 3**

★★★★★

**The Pine Barrens . . . 8**

Library, University of  
Massachusetts  
Serials Section  
Amherst, MA 01002



# Evital<sup>®</sup> controls nutgrass and cutgrass. And 14 more troublesome weeds in cranberries.

Evital doesn't fall short in effective weed control. It stops **16** profit-robbing weeds, including tough ones like smoke grass, spike rush, and barnyard grass.

- **evital** stops tough weeds in cranberries better than any other granular herbicide.
- **evital** is a sand-core granule making it an outstanding aerial formulation; easy ground application as well.
- **evital** is the No. 1 choice to apply over newly-sanded bogs to prevent weed emergence.

It's the broad spectrum weed-control herbicide that cranberry growers depend on year after year.

(Use herbicides effectively. Read and follow label directions carefully.)

**evital**<sup>®</sup>  
GRANULAR HERBICIDE FOR CRANBERRIES



Sandoz, Inc. Crop Protection/480 Camino Del Rio South/San Diego, CA 92108

Copyright, 1980, Sandoz, Inc.

# Cranberry Fruitworm: Economics of control

By CHARLES F. BRODEL  
Entomologist, Massachusetts  
Cranberry Experiment Station

**Abstract:** Benefit/cost ratios were calculated for the control of cranberry fruitworm via helicopter application(s) of parathion and azinphosmethyl. The use of parathion led to a greater return per dollar. Single or multiple applications of either insecticide were economically feasible on bogs producing from 50 to 200 barrels per acre. Of the treatment schedules considered, a single application at fruit set produced the greatest return per dollar.

Cranberry fruitworm populations in Massachusetts are primarily controlled by weather, parasites and insecticides. Low winter temperatures kill a variable percentage of overwintering larvae; however, the winter flood and a snow cover diminish this effect. Parasites reduce egg and larval populations after infestations have begun. Even so, the percentage of salable berries at harvest is seldom acceptable. Insecticides can be

carefully used to increase that percentage markedly without eliminating parasites and otherwise upsetting environmental balances.

But whereas nature freely supplies the grower with frigid temperatures and parasites, insecticides must be purchased with hard-earned cash. Each time the grower purchases an insecticide, he is trusting that the manufacturer's claims are truthful and that the extension service's recommendations are sound. Yet, even if the product performs as claimed, the grower must at times ask himself, "Did I really get my money's worth?" To answer this question with regard to cranberry fruitworm, grower costs and benefits were analyzed in light of current control recommendations.

**Costs:** To treat for fruitworm, the bog owner must incur the expense of (1) an insecticide and

(2) its application. Recommended insecticides are parathion and azinphosmethyl (Guthion<sup>®</sup>). Parathion costs about 35 cents more per pint than azinphosmethyl; however, as opposed to 4 pints of azinphosmethyl, only 1 pint per acre of parathion is needed for control. Thus, the total cost of insecticide per acre is about \$2.45 for parathion and about \$8.40 for azinphosmethyl.

The insecticide of choice may be applied by helicopter or through an overhead sprinkler system. Regarding helicopter application, typical costs per acre are \$5.50 for parathion and \$4.50 for azinphosmethyl. These rates increase by about \$1 per acre when fewer than a threshold number of acres, most commonly 50, are treated.

In the case of a sprinkler system, the insecticide may be injected by the bog owner, a salaried employee

**COVER PHOTO**  
THE VORACIOUS Cranberry fruitworm is the subject of the article that begins on this page.

## STAY INFORMED

Subscribe to CRANBERRIES

\$5 a year; \$9 two years

Send check or money order to:

CRANBERRIES

P.O. Box 249

COBALT CT 06414



THE STUDY by entomologist Charles F. Brodel concludes that a single application at fruit set produces the greatest return per dollar in the fight against one of the grower's worst pests—the cranberry fruitworm.

or a commercial applicator. On a per-acre basis, the cost for application by any such individual probably will not exceed that by helicopter. To this larger cost must be added the much smaller cost of operating a pump. Whether the pump is powered by electricity, propane gas or gasoline, the cost amounts to 10 cents or less per acre.

The total costs for applying parathion and azinphosmethyl by helicopter to bogs of varying productivity are listed in Table 1.

**Benefits:** By applying insecticide at the proper time(s), the bog owner may receive payment for berries which otherwise would have been consumed by fruitworm larvae. This "saved loss in yield" can be estimated according to the following rationale.

A fruitworm larva hatching in early July (berry set) needs an average of six cranberries to complete its development. Thus, if two unhatched and unparasitized fruitworm eggs are observed on

100 randomly picked berries in early July, 12 berries fewer will be harvested. This represents a 12 per cent loss in yield. Given such an infestation, a bog expected to yield 100 barrels per acre would only yield 88 barrels. The loss of 12 barrels per acre equals a monetary loss of \$260 per acre, based on the average return per barrel of \$21.70 from the Ocean Spray Cranberries cooperative in 1978.

Due to increased berry size in late July and August (berry growth), three to five berries are needed for larval development. An egg count of two during that time means at least a 6 per cent loss at harvest. A bog expected to yield 100 barrels per acre would only yield 94 barrels. The loss of six barrels per acre translates into a loss in income of about \$130 per acre.

Other "saved losses in yield" for multiple applications are listed in Table 1 for bogs of varying productivity.

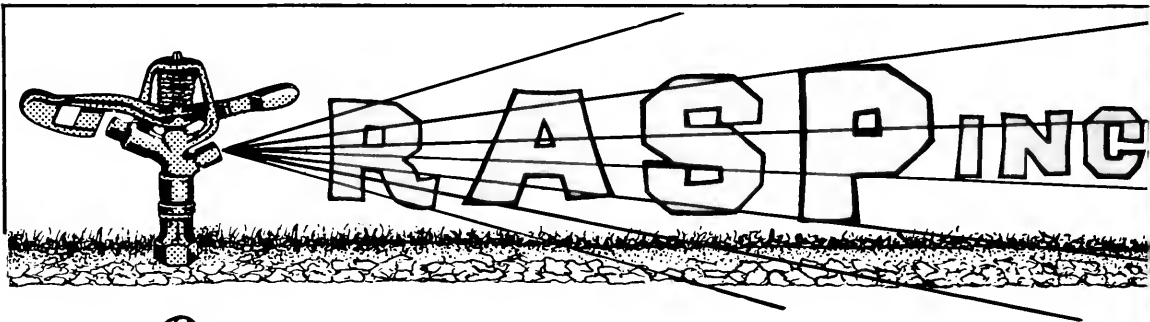
The applicability of the above rationale hinges on four assumptions:

(1) The egg count per 100 randomly picked berries reflect the actual egg population on a bog. In a field test, this sampling procedure was compared with square-foot sampling, whereby berries in a randomly selected square-foot area were collected and inspected. Both sampling techniques yielded similar egg counts; however, percentages of infested berries were lower for square-foot samples. This may be explained by the presence of small, recently set berries in such samples.

(2) No more than one larva occupy a berry. The dissection several hundred infested berries revealed neither the occurrence more than one larva per berry: evidence of cannibalism.

(3) Each insecticide at the recommended concentration effects 100 per cent kill of eggs.

(continued on page 6)



**AUTHORIZED AGWAY REPRESENTATIVE**

**LICENSED SPRAYING OF PESTICIDES (Seasonal)**

**WITH A COMPLETE LINE OF:**

**CRANBERRY INSECTICIDES • FUNGICIDES  
HERBICIDES • MITICIDES • and FERTILIZERS  
IN STOCK!**

**ROBERT A. ALBERGHINI – SPRAYING  
RFD 5 PLYMOUTH STREET, CARVER, MASS. 02330  
TELEPHONE: 866-4429**

For further information, call evenings after 5:30

**Bugs**

AGWAY

AGWAY



Massachusetts

DR. CHESTER E. CROSS

Director, Massachusetts Cranberry  
Station

IRVING DEMORANVILLE

Extension Cranberry Specialist  
Massachusetts Cranberry Station

MICHAEL COUTURE

East Wareham, Mass.

New Jersey

PHILIP E. MARUCCI

Cranberry, Blueberry Specialist  
Cranberry & Blueberry Laboratory  
Chatsworth, N.J.

MARY E. ARCHIBALD

Collingswood, N.J.

Nova Scotia

I.V. HALL

Botanist, Research Station,  
Kentville, Nova Scotia

Oregon

ARTHUR POOLE

Coos County Extension Agent  
Coquille, Ore.

Washington

AZMI Y. SHAWA

Extension Agent in Horticulture  
Coastal Washington Research and

Extension Unit

Long Beach, Wash.

Wisconsin

VERNON GOLDSWORTHY

Eagle River, Wisc.

TOD D. PLANER

Farm Management Agent  
Wood County, Wisc.

JOAN E. HUMPHREY

Friendship, Wisc.

## What lies ahead with CRANBERRIES?

A lot of cranberry juice has passed through our veins since we assumed publication early last year of the world's only periodical devoted to the industry.

We always were crazy about the berry. But getting so intensely involved with America's native fruit increased consumption. And noatives, please. We like it straight. The wife tosses a package or two fresh berries into water, boils for about 20 minutes, and, zippo, a fresh supply of cranberry juice. Hardly makes us pucker anymore.

But that's not what we intended to go on about, although it has struck as poetically fitting that CRANBERRIES came within our purview. What

we want to say as a new decade unfolds is that we will continue to try to publish a magazine that you will find both useful and enjoyable; a magazine that you will be proud to have on the coffee table when friends, cranberry or non-cranberry types, come around.

Besides enlarging the roster of expert advisors in the past year, we've added correspondents in the three principal growing states and will be doing more in Washington and Oregon. We've engaged the talents of talented writers and will continually be attracting others. We've also marshaled the skills of a number of photographers, cartoonists and illustrators.

On the delivery side, if you have any problems, let us know and we'll solve the situation. If you have anything you want to say, you can say it here. We've started a Letters column.

CRANBERRIES has weathered war and peace, business cycles and economic ups and downs created by man and nature. It's a sturdy ship and we'll strive to keep it sailing fast and true on the choppy seas of existence.

## Credit where it's due

Campaigning in Iowa, Sen. Edward Kennedy remarked that while Iowa is the chief corn producer in the nation, his home state of Massachusetts is number one in growing cranberries.



CRANBERRIES is published monthly by the Taylor Publishing Co., Wellwyn Drive, Portland CT 06480. Second class postage is paid at the Portland, Conn., Post Office. Price is \$5 a year, 75 cents a copy in U.S.; Canada, \$6 a year; all other countries, \$8 a year. Copyright 1979 by Taylor Publishing.

ISSN: 0011-0787

# FRUITWORM . . .

(continued from page 4)

and small larvae. Although this assumption may be met under specified laboratory conditions, it is never met under field conditions.

(4) No mortality occurs among untreated larvae. Fruitworm larvae, like other living organisms, are subject to physiological malfunctions, infection, parasites and predators.

Acceptance of these assumptions enables reasonably accurate loss estimates, in my opinion. Better estimates would require qualification of assumptions (1) and (3), primarily, for every combination of weather, location and cranberry variety.

**Benefit/Cost Ratios:** The "benefit/cost ratio" may be defined as the monetary loss prevented by treatment divided by the cost of treatment. A ratio of 1 means that the "saved loss in yield" equaled the cost of treatment, a dollar's worth of cranberries was saved from fruitworm damage. Treatment was not worthwhile because no profit resulted.

Ratios less than 1 mean that more money was spent for treatment than was gained from the saved crop. For instance, a ratio of 0.5 means that for every \$1 expended on treatment, only 50 cents worth of cranberries was saved. A loss was sustained because treatment occurred before an economically significant number of eggs was observed.

Ratios greater than 1 mean that less money was spent for treatment than was gained from the saved crop. For instance, a ratio of 2 means that for every \$1 expended on treatment, \$2's worth of cranberries was saved. A profit was realized because treatment occurred after an economically significant number of eggs was observed.

Benefit/cost ratios per acre of bog are listed in Table 1 for numerous combinations of insecticide, bog productivity and number of applications. The following

Table 1. Benefit:cost ratios for fruitworm treatment via helicopter, based on an average egg count of 2 and an average return/bbl of \$21.70.

Yield of bog/acre (bbl)	Time of application <sup>a/</sup>	Saved loss in yield/acre (\$)	Total cost/acre (\$)	Benefit/cost
<b>PARATHION</b>				
200	S	520	8	65
	G	434	8	54
	S + 1G	954	16	60
	S + 2G	1214	24	51
100	S	260	8	33
	G	217	8	28
	S + 1G	477	16	30
	S + 2G	607	24	25
50	S	130	9	14
	G	109	9	12
	S + 1G	239	18	13
	S + 2G	304	27	11
<b>AZINPHOSMETHYL</b>				
200	S	520	13	40
	G	434	13	33
	S + 1G	954	26	37
	S + 2G	1214	39	31
100	S	260	13	20
	G	217	13	17
	S + 1G	477	26	18
	S + 2G	607	39	16
50	S	130	14	9
	G	109	14	8
	S + 1G	239	28	9
	S + 2G	304	42	7

<sup>a/</sup> S = berry set; loss of 6 berries per larva.

G = berry growth; loss of 5 berries per larva in late July or 3 in August.

conclusions may be reached:

(1) Because all ratios are greater than 1, it is profitable to treat via helicopter whenever two fruitworm eggs are found in 100 randomly picked berries.

(2) Greater profits should be realized by sprinkler than by helicopter application, given that each method provides equivalent control.

(3) Parathion produces a 67 per cent greater return per dollar than does azinphosmethyl.

(4) It is more profitable to treat high-yielding than low-yielding bogs.

(5) The greatest return per dollar results when berries have to be treated only once at time of set. Multiple treatments tend to lower the return per dollar because fewer berries are consumed by each larva

as the season progresses. This is least noticeable for low-yield bogs.

**Additional Comments:** The ratios in Table 1 show conclusively that the decision to treat for fruitworm can yield substantial profits at harvest. In fact, marginal profits might be realized even if the return per berry were to plummet to \$3. Yet, other considerations besides economic should influence the choice of insecticide and the manner and timing of application.

(1) In years when bloom is prolonged, one should choose the insecticide which least affects honeybees. Complete kill of fruitworm and larvae may not occur with the alternate material, but continued pollination by unafflicted bees might increase fruit set.

(2) Continuous use of a single insecticide tends to promote the



crease of resistant fruitworm populations. Alternating materials definitely advisable.

(3) When other insect pests are present, one may aim to achieve satisfactory control of all pests with one insecticide, rather than achieve complete control with two or three insecticides. The latter approach might well be economically unwise.

(4) When applying insecticides through a sprinkler system, one may wish to use the less hazardous

material.

(5) One should consider the presence of streams, fish hatcheries, reservoirs, recreational ponds, and residences when selecting an insecticide.

(6) Parasitic wasps are generally more sensitive to insecticides than are fruitworm eggs and larvae. As few treatments as possible will help to maintain parasite populations.

One might propose that a count of one fruitworm egg instead of two should indicate when to apply

insecticide. Benefit/cost ratios would indeed be favorable; however, each would be half the value in Table 1 because only half the potential loss would be prevented by each application. More frequent applications probably would be needed, leading to a more rapid increase of resistant fruitworm moths and devastation of parasite populations. These consequences would be far more alarming than any small loss incurred by waiting for a count of two or more eggs.

# 'Doc, it's striped, prickly, has 3 legs and 13 eyes'

By MICHAEL COUTURE

Most people enter a doctor's office with their ailments in their bodies or—if they're hypochondriacs—in their minds.

Dr. Charles Brodel's "patients" bring their problems in bags or crates.

Research and extension entomol-

ogist at the Massachusetts Cranberry Experiment Station in East Wareham, Dr. Brodel identifies insects that might be devouring area crops. Besides cranberry growers, he assists home gardeners and blueberry growers.

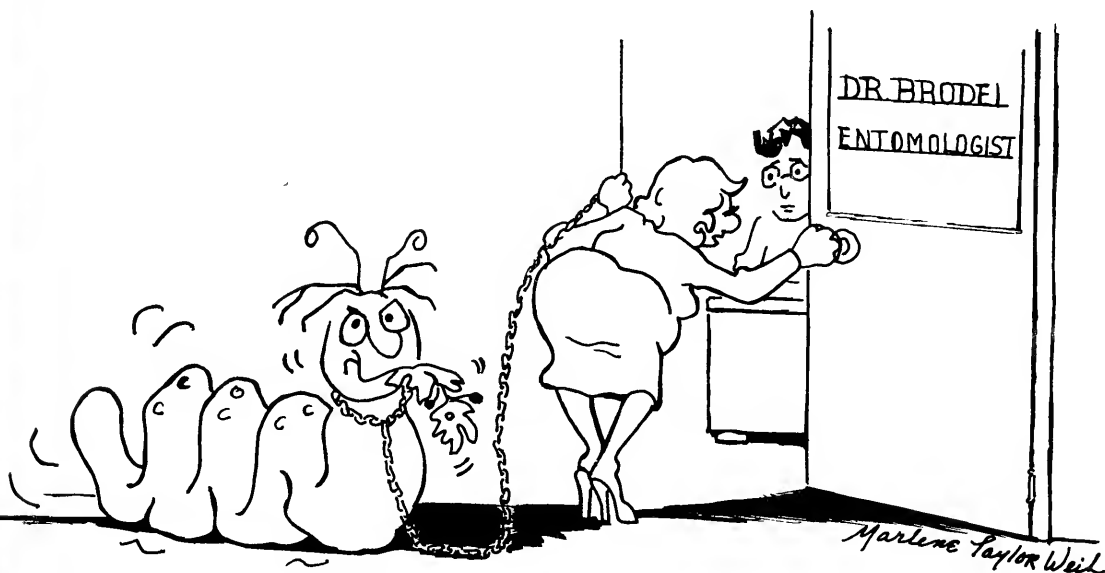
Although the state maintains extension service offices in Barnstable on Cape Cod and Hanson,

many people find it easier and less costly to call Dr. Brodel directly.

"One of the most recent cases was with the squash vine borer, a worm that eats out all of the vessels that carry water and nutrients to the roots," Dr. Brodel said.

"When the vine wilts and dies, the borer is usually the problem.

(continued on page 10)



"DR. BRODEL, . . . . . WOULD YOU LIKE TO SEE THE INSECT I FOUND IN MY CRANBERRY BOG?"

# Review

By MARY E. ARCHIBALD

**PINE BARRENS: ECOSYSTEM AND LANDSCAPE**, edited by Richard T.T. Forman, Rutgers University, September 1979, 624 pp., \$39.50. Academic Press Inc., 111 Fifth Ave., New York, N.Y. 10003.

Cranberry people, particularly those from New Jersey, as well as environmentalists, naturalists and lay persons, will find a treasure house of information in this pioneering attempt to analyze the New Jersey pine barrens. About 33 academicians have contributed material on the people, geology and soils, climate, plants, vegetation patterns, water and aquatic ecosystems, animals and animal communities of this unique area.

The book analyzes the landscape as a mosaic of interacting ecosystems and because it is a synthesis of pine barrens ecology, the book can be a field manual to pine barrens animals, plants and soils.

The book has a conceptual approach and provides a framework enabling the reader to understand what is unique about this region and what kinds of changes result from natural processes

and human activities. The text is in a lucid style, there is a minimum of technical terminology and there are many illustrations in the form of figures and tables.

The book is useful to those interested in pine and other conifer regions and areas with acid soils. **Pine Barrens** may be used as a teaching resource and text. It is essential background for those who make decisions concerning natural resource management.

References to cranberries and cranberry production, researched and written by Philip Marucci, Rutgers research professor in cranberries and blueberries, appear throughout the book.

The book mentions that nearly all of the New Jersey cranberry bogs have been within the pine barrens, with the first bog planted there about 1835.

New Jersey, along with Massachusetts, produced the largest volume of cranberries during the early years, from 1857 to 1876. Massachusetts took the leadership in 1877, however, and in 1939 Wisconsin surpassed New Jersey in cranberry production. At the present time, Massachusetts produces about 41 percent, Wisconsin about 39 percent, New Jersey, 10 percent, and

Washington and Oregon about 5 percent each of the total cranberry crop.

The area devoted to cranberry culture in New Jersey increased steadily for 60 years, then declined. False blossom, a disease preventing fruiting, was the cause of much of the decline. The disease was first found in New Jersey in 1915, was in every bog in 1926 and greatly reduced yields. Excellent control of the blunt-nose leafhopper—the carrier of false blossom—has produced greatly increased yields of cranberries in recent years (216 barrels per hectare in 1976). Conversion from hand scooping to efficient mechanical water reel in harvesting has been the biggest factor in the tremendous yield increase.

Among the insects troublesome to cranberry culture are fireworms, particularly *sparganothis sulfureana*, which can sometimes cause losses of more than half the crop. Others are cranberry fruitworm and cranberry girdler.

The enlightened use of fungicides and herbicides can control fruit rot and weeds. Plants in competition with the cranberry, such as switch grass (*Panicum virgatum*), sedge (*Carex bullata*), other sedges, rushes, reeds (*Lachnanthes tinctoria*), loosestrife

(continued on page 12)

A MOST COMPLETE INVENTORY OF  
IRRIGATION ACCESSORIES



# LARCHMONT

ENGINEERING & IRRIGATION, INC.

P.O. Box 66, 11 Larchmont Lane, Lexington, MA 02173 (617) 862-2550

IRRIGATION EQUIPMENT DESIGNED ESPECIALLY  
FOR THE CRANBERRY INDUSTRY

— FOR EXAMPLE: —

*Gorman-Rupp Self Priming Electric Sprinkler Pumps*  
*Proven Quick Couple Riser*  
*Ingersoll-Rand Water Harvest Pumps*  
*Aluminum Insert Coupling For 4" Poly Pipe*

Contact:

Larchmont Engineering  
Phil Tropeano, President  
(617) 862-2550 (Call Collect)



Contact:

Bill Stearns, Plymouth, Mass.  
(617) 746-6048  
(617) 746-2610





THE EDVILLE RAILROAD, a tourist attraction located in the heart of Massachusetts cranberry country, always dresses up for the holiday season. Above is the steam train that takes passengers on a 5½ mile ride through working bogs. On the upper right, the illuminated sign conveying season's greetings, is reflected in the flooded bog. On the lower right, nursery rhyme characters, toy animals and hundreds of lights create a festive atmosphere.

(CRANBERRIES Photos by Michael Couture)



## Forecast down, still a record

The final forecast of U.S. cranberry production is for a record crop of 2.48 million barrels, 1 percent more than the 2007 crop but 2 percent less than prospects on Oct. 1, reports the New England Crop and Livestock Reporting Service of the USDA. Prospects declined during October in Massachusetts, the service says. The dry harvest was delayed by rains and yields fell below those anticipated earlier. Harvest was nearly complete in

New Jersey by Nov. 1 where prospects remained unchanged from a month earlier.

Wisconsin still expects to harvest 910 thousand barrels, its second largest crop.

Oregon's crop is now forecast at 99,000 barrels, a 7 percent decline from last month. As harvest progressed, growers found berries did not size as well as anticipated.

Harvest has ended in Washington, where late frosts helped darken berries.

**CORRUGATED  
CULVERT PIPE**

and

**FLOW GATES**

Aluminum – Galvanized  
Asphalt Coated

**Felker Bros.  
Corp.**

**MARSHFIELD WISCONSIN**

**Area 715 384-3121**

'DOC . . .

(continued from page 7)

Luckily, this man knew what he was dealing with because he had lost his crop last year.

"When he observed the crop this year, he took the worm out with a knife, sealed up the vine with tape and then brought the worm to me to be certain."

**ANOTHER SUMMER** case involved a large pink worm observed eating away at young grapevines. Dr. Brodel identified it as a sphinx moth larva, which consumes a large amount of leaf tissue. He prescribed cabaryl.

A common summer problem, for any grower, is the Japanese beetle. Although some chemicals have been tried with moderate success, Dr. Brodel said the only assured method of eliminating

them is to pick them from the plants, then place them in a covered can.

"If someone has several acres, there is a problem, but there is nothing proven really effective against them," he said.

Aphids are troublesome to many gardeners, Dr. Brodel said. Hungry eaters of Brussels sprouts and cabbage, they are particularly annoying because of their prolific reproduction abilities. For a prescription, he recommended diazinon.

Dr. Brodel enjoys queries. Due to the economy, more people are growing their own gardens, hence the calls are more numerous.

**SOME CALLERS** describe the length, color and other features of their insect finds. But Dr. Brodel is reluctant to provide a prescrip-

tion based on verbal evidence. prefers to see the insect.

"Descriptions are just too vague," said the young man who assumed his post when William Tomlinson retired last year. "Most commercial growers seem to know the pests because they have had them once or twice or have attended the growers' clinics here to aid them"

Some insects, unbeknownst to the home grower, are beneficial or harmless to plants. As an example, Dr. Brodel cited the midge, which invades grape sheds causing no damage, despite the creation of a large, water ballooning type of growth.

For the harmful insect, Dr. Brodel hopes his prescriptions have an effect decidedly opposite the one sought by your friendly family physician.



# Letters

## WANTS TO LEARN WHAT OTHERS ARE DOING

... Perhaps you could include as a service to growers a page devoted to classified ads of articles (for cranberry farming equipment only) for sale or trade . . .

Another suggestion would be to include an article each month which describes some grower's equipment or ideas for weeding, sanding, investing, etc., or photos of equipment

William H. Slattery,  
Norfolk, Mass.

**EDITOR'S NOTE: CRANBERRIES** offers classified ads at 20 cents a word. We will make an effort to comment as regularly as possible on suggestions about articles on grower's equipment, etc.

## TIPS FOR CRANBERRIES

I like what you have done to CRANBERRIES Magazine. We were personal friends of Clarence and Ethel Hall, and always felt they did a very great job, and since you have taken over, it seems to have reverted to the style it was, when they published. My husband reflects my feelings

Esther Goldsworthy,  
Eagle River, Wisc.

**EDITOR'S NOTE:** Thank you.

## COOPS!

... I've planned to write you since

## CRANBERRY GROWERS REALTY

Listings of buyers and sellers welcomed on cranberry acreage and upland.

Appraisals

**DOUGLAS R. BEATON**

E. Sandwich, Mass.  
02537

(617) 888-1288

you took over CRANBERRIES but I'm just thru with the harvest—so just now have time. . . .

My question is: Why didn't the

Cranberry Growers' wives get more coverage of their weeklong efforts at the Big E? . . .

The Cranberry Corner in the

## Surplus Pump for sale

asking \$7,000

Type A Peerless

2,500 G.P.M.

300 foot head with  
250 Cummings Diesel

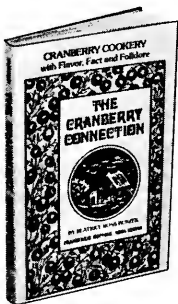
Gold Star  
Sod Farm

ATTN: John McPhail  
West Road  
Canterbury NH 03324  
Tel. 1-(603)-783-4717

## The scoop of the year!

*Cranberry Flavor, Fact and Folklore in*

**THE CRANBERRY CONNECTION**, by Beatrice Buszek. Your favorite berry pops up in kitchen-tested recipes for every delight from Cranberry Bog to Cranberry-Banana Bread, Cranberry Avocado Dip, and countless other desserts, drinks, salads, entrees. "A fascinating revelation of the many uses for cranberries . . . you'll find this book a treasure."—*Des Moines Register*. Paperback, \$7.95.



Please send \_\_\_\_\_ copies of **THE CRANBERRY CONNECTION**, \$7.95 each.

Name \_\_\_\_\_

Address \_\_\_\_\_

Zip \_\_\_\_\_

Add \$1.00 for postage; Conn. residents add 7% sales tax.

**CRANBERRIES MAGAZINE**  
P. O. Box 249, Cobalt, CT 06414



Massachusetts building worked hard and long for the industry. Under the direction of Shirley Cross of East Sandwich, Mass., relay teams of six worked in three day shifts (all cranberry growers' wives!).

Alice N. Merry,  
Duxbury, Mass.

**EDITOR'S NOTE:** We goofed. We should have gotten to the Big E (we always did before, it being high on the list of our all time favorite fairs and expositions). Next year, definitely! In the meantime, here in print is a photo you sent of some of the grower's wives who worked so dogged hard.



**CRANBERRY GROWERS' wives who worked the Cranberry Corner at the Big E in Springfield, Mass.**

## REVIEW . . .

(continued from page 8)

(*Lysimachia terrestris*), chain fern (*Woodwardia virginica*) and other ferns which formerly were controlled by hand pulling, are controlled by herbicides today.

In a section on the climate of the pine barrens, the book states that measurement of the microclimate of the pine barrens has been very limited. The most extensive measurements of the pine barrens microclimate probably are the bog minimum temperatures recorded at Whitesbog since 1944 by the Rutgers University Cranberry and Blueberry Research Center.

Minimum temperatures in a cranberry bog have been measured at Whitesbog during many years using a toluol-in-glass minimum thermometer mounted on a metal backing and exposed just above the cranberry vines. The bog minimum temperatures measured in this way are probably more representative of bog conditions than minimum temperatures recorded in an instrument shelter. During 1976, the most recent year for which data are available, there were 29 nights with bog minimum temperatures of 32 degrees fahrenheit or below. In contrast, instrument shelter minimum temperatures of 32 degrees fahrenheit existed on only 10 nights. The natural bog areas of the pine barrens may have an even more extreme microclimate than the cranberry bogs, since the latter have been modified to a certain extent by cultural and management practices. On generally fair days with light winds, the maximum temperatures at the level of the vegetation are likely to be several degrees warmer than the maxima in the instrument shelter.

The book also describes the soil types of the pine barrens, among them the Atsion series, on which much of New Jersey cranberry cultivation takes place.

**Pine Barrens** states that major wetlands have been utilized for the cultivation of cranberries. Commercial cranberry bogs are dependent now on

water reservoirs, canals, ditches, sl gates, and, indirectly, on cedar log

The book may be ordered directly from the publisher or through local bookstores. An additional outlet is New Jersey Audubon Society's Rancocas Nature Center, Rancocas Road, Westhampton, N.J.



**Muriel Stefani**  
*Representative*



**Martin B. Person, Jr.**  
*President*

### STOCK QUOTATIONS

"One of the funny things about the stock market is that every time one man buys, another sells, and both think they are astute."

—William Feather



### GAGE WILEY & CO., INC

40 Court St., Plymouth, Massachusetts 746-3322  
Massachusetts Toll-free IN WATS 1-800-242-0263

*New England Stock Broker.  
For Over 45 Years*

# regional news notes

## Massachusetts

By IRVING DEMORANVILLE

The latest official estimate of the Massachusetts crop is 1,080,000 bushels, which is probably very close to final total.

## Nova Scotia

By IVAN V. HALL

The construction of the new research and administration complex to house the provincial and federal workers is ahead of schedule. We expect to move into the latter part of the summer of 1980.

A report dated Nov. 26 from the province of British Columbia states: "Cranberry operations are now completed for the 1979 crop year. Workers are carrying out routine maintenance and preparing for pruning."

## weather watch

### MASSACHUSETTS

November was warm, averaging 2.8 degrees a day above normal. This is not an unusual occurrence, as it was only the sixth warmest in our records. Maximum temperature was 67 degrees on the 26th and the minimum was 27 degrees on the 1st, 16th, 17th and 30th. Incidentally, the 27 degrees minimum was the highest for any November night in over 20 years. Warm days were the 2nd, 3rd, 9th, 10th, 11th, 25th and 26th. Cooler than average days were the 14th, 15th, 16th, 18th and 30th. Rainfall totaled 4.27 inches or 1/3 inch below normal. There was measurable precipitation on 10 days with 1.76 inches on the 3rd as the



THE CREATOR of the Cranberry Bread House float, Manfred Bass, is flanked by Patrick McCarthy, Ocean Spray vice president, marketing, left, and George Kilpatrick, vice president, domestic marketing, before the start of the 1979 Macy's Thanksgiving Day Parade. Ocean Spray Cranberries sponsored the 26 foot long float, which was festooned with thousands of cranberries and featured a running pool overflowing with real cranberry juice. Thirty youngsters dressed as "cranberry gnomes" rode the float, along with actor-singer Gil Gerard who portrays Buck Rogers on television. (Photo by Andrew McKeever)

## WISCONSIN CRANBERRY HEADQUARTERS FOR



EVITAL • SOLO • DIQUAT  
2-4-D • DOWPON • ETHREL  
SEVIN • PARATHION • GUTHION • DIAZINON  
KOCIDE • DIFOLITAN • FERBAM  
COPPER SULFATE • PRINCEP

## Cole Chemical Supply

DIVISION OF *Hopkins* AGRICULTURAL CHEMICAL CO  
P.O. BOX 7211, MADISON, WISCONSIN 53707  
608-221-1581

greatest storm. Basically, the last two and a half weeks of the month were dry. We are about 10 inches above normal for the year to date and almost the same amount ahead of 1978 for the same period.

There was no snow recorded, which is not unusual for us, happening about two out of every three years.

I.E.D.

## NOVA SCOTIA

The weather during November was slightly warmer than the 50 year average. As of Dec. 4, we had not had any snow.

I.V.H.

## WASHINGTON

October gave a high of 80 degrees on the 10th with lovely days from the 1st through the 12th. "Summer prevailed," then winter came in a hurry. A low of 37 degrees was recorded on the 21st. Total precipitation was 8.99 inches, slightly over the average for October. The greatest storm came on the 25th, with 1.75 inches.

November continued mild, with a high of 65 degrees on the 8th. Early morning hours brought several days at 35 degrees and below, with a low of 28 degrees on the 12th. Precipitation total was 9.36 inches, bringing the year's total, to date, to 61.20 inches, which is 9.16 inches below average. Overall area conditions are similar to the drought periods of 1976 and 1978, with ground water storage still very low.

Let's look back at the winter of 1978-79.

It was a long, cold period for Washington bogs, causing excessive damage to fruit buds and vines. Bud examination during March 1979 showed an average injury of 19.3 percent in Grayland bogs and 33 percent in Long Beach bogs (a slight bit higher than injury of 1972 at 32 percent). The cold, dry east wind contributed to the higher injury at Long Beach while the Grayland and North Beach bogs were not subjected to this injurious east wind.

The usual weather pattern of warming up gradually during July, August and cooling off sharply in September changed to continuous warmer temperature. July, August and September 1979 registered 1.8, 1.6 and 6.2 degrees F higher than the same months of 1978. Low precipitation

during the past quarter was 6.96 inches less than the same period of 1978.

The combination of bud injury, vine winter kill and variable weather contributed to the lower yield of 15-20 percent in the Long Beach area. The Grayland and North Beach areas experienced a 15-20 percent increase over the 1978 yield.

The color development was adversely affected by the lack of cooler nights in September in all areas.

A.Y.S.

## WISCONSIN

Total rainfall for the 1979 growing season from April 1 to September 30

averaged 19.6 inches in Wisconsin, was 9.1 inches less than received in 1978 and 1.8 inches below normal (1941-70). August was by far the wettest month in 1979, accounting 30 percent of the growing season rainfall. May had nearly normal rainfall the rest of the months were drier than usual. September was the driest month with less than 1 inch of rain. Temperatures were below normal in every month of the growing season except September.

October temperatures were below normal but precipitation was well above normal. Snow fell during the month early as Oct. 9 in northern areas. T

## BARK RIVER *Culvert and Equipment Co.*

(Wisconsin-Michigan Growers)

ALUMINUM HEADGATES FABRICATED TO YOUR SPECIFICATIONS

HAND WHEEL OPERATED GATES

ALUMINUM CORRUGATED PIPE

INTERNATIONAL POWER UNITS

INTERNATIONAL CRAWLER TRACTORS

WARNER & SWASEY EXCAVATORS

WALDON LOADERS AND USED EQUIPMENT

Eau Claire, Wis.  
715-835-5157

Escanaba, Mich.  
906-786-6920

Milwaukee, Wis.  
414-461-5440

Madison, Wis.  
608-222-4151

Green Bay, Wis.  
414-435-6676

Ironwood, Mich.  
906-932-0222



**INTERNATIONAL CONSTRUCTION EQUIPMENT**

INTERNATIONAL HARVESTER COMPANY

Office  
295-2222

K. Beaton  
295-2207

## BEATON'S CRANBERRY GROWERS SERVICE



WAREHAM, MASS.

D. Beaton  
888-1288

P. Beaton  
947-3601

Specializing in

- DITCHING
- SANDING
- COMPLETE BOG MANAGEMENT
- NETTING
- WEED CLIPPING
- HARVESTING (Wet and Dry)

Also

Complete line of portable Crisafulli Pumps 2" - 16"  
Plastic netting for suction boxes

ures continued colder than usual in first half of November, but Indian mer weather returned on the end of Nov. 17-18 as high readings in the 60's. A major precipitation m brought rain and cooler temper- es on Nov. 20-21, but most of onsin escaped the heavy snows fell in states to the west. Growing degree days from April 1 ct. 7 averaged 5 percent below onal. The last frost of spring was on a 25. Frost was reported as early as u 15 in the extreme north. Only t frosts occurred in northern and s rn areas during September, and the shard frost did not come until the s week of October.

Wisconsin Agriculture Reporting Service



harvest cranberry-apple mold  
add zest and flavor to that

turkey, goose or other fowl left over from the holiday season. Or you can use it for any occasion.

### CRANBERRY-APPLE MOLD

- 3 ounce package gelatin, any red flavor
- 1/3 cup sugar
- 1/8 teaspoon salt
- 1/8 teaspoon cinnamon
- Dash of cloves
- 3/4 cup boiling water
- 1 cup crushed ice
- 1 medium peeled cored apple, cut into wedges
- 1 cup fresh cranberries

Combine gelatin, sugar, salt, spices and boiling water in blender. Blend at low speed for about 30 seconds, until gelatin is dissolved. Add crushed ice and blend at high speed until ice is melted, about 30 seconds. Measure three cups, chill until thickened.

Add apple wedges and cranberries to remaining gelatin in blender and blend at low speed until fruit is chopped. Stir into thickened gelatin. Pour into four cup mold or individual molds. Makes four cups or eight servings.

### MASSACHUSETTS FARM BUREAU NEWS & VIEWS

New president of the Massachusetts Farm Bureau Federation is Charles Dowse of Dowse Orchards in Sherborn. He succeeds Harold Newton of Northfield.

Also elected at the MFBF annual meeting were Gordon Price of George-

town, a vegetable grower, first vice president, and Richard Tryon of Monterey, a dairy farmer, second vice president.

Named to the board of directors were Neil Fletcher, Sheffield; William Fitzgerald, Ashfield; Tom Zigmont, Hatfield; Alex Dowse, Sherborn; Charles Bean, Westwood; Al Pappi, Wareham; Al McKinstry, Chicopee.

# DIRECTORY for Cranberry Growers

## The CHARLES W. HARRIS Company

451 Old Somerset Avenue  
North Dighton, Mass.  
Phone 824-5607

AMES  
Irrigation Systems  
RAIN BIRD  
Sprinklers  
HALE  
Pumps

Highest Quality Products  
with Satisfaction Guaranteed

## Niemi Electric Co.

ROBERT NIEMI

ELECTRICAL CONTRACTORS

HEAT, LIGHT and POWER WIRING

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL



TEL. 295-1880

Robert Niemi Pinchurst Dr. Wareham, Mass.

## Farm Credit Service

Box 7, Taunton, Mass. 02781  
Tel. 617-824-7578

•  
PRODUCTION CREDIT LOANS  
LAND BANK MORTGAGES

Office - on Route 44  
1/4 Mile West of Rt. 24

IN EVERY INDUSTRY  
THERE IS A NAME  
FOR QUALITY



OCEAN SPRAY CRANBERRIES, INC., PLYMOUTH, MASS. 02360

AN EQUAL OPPORTUNITY EMPLOYER



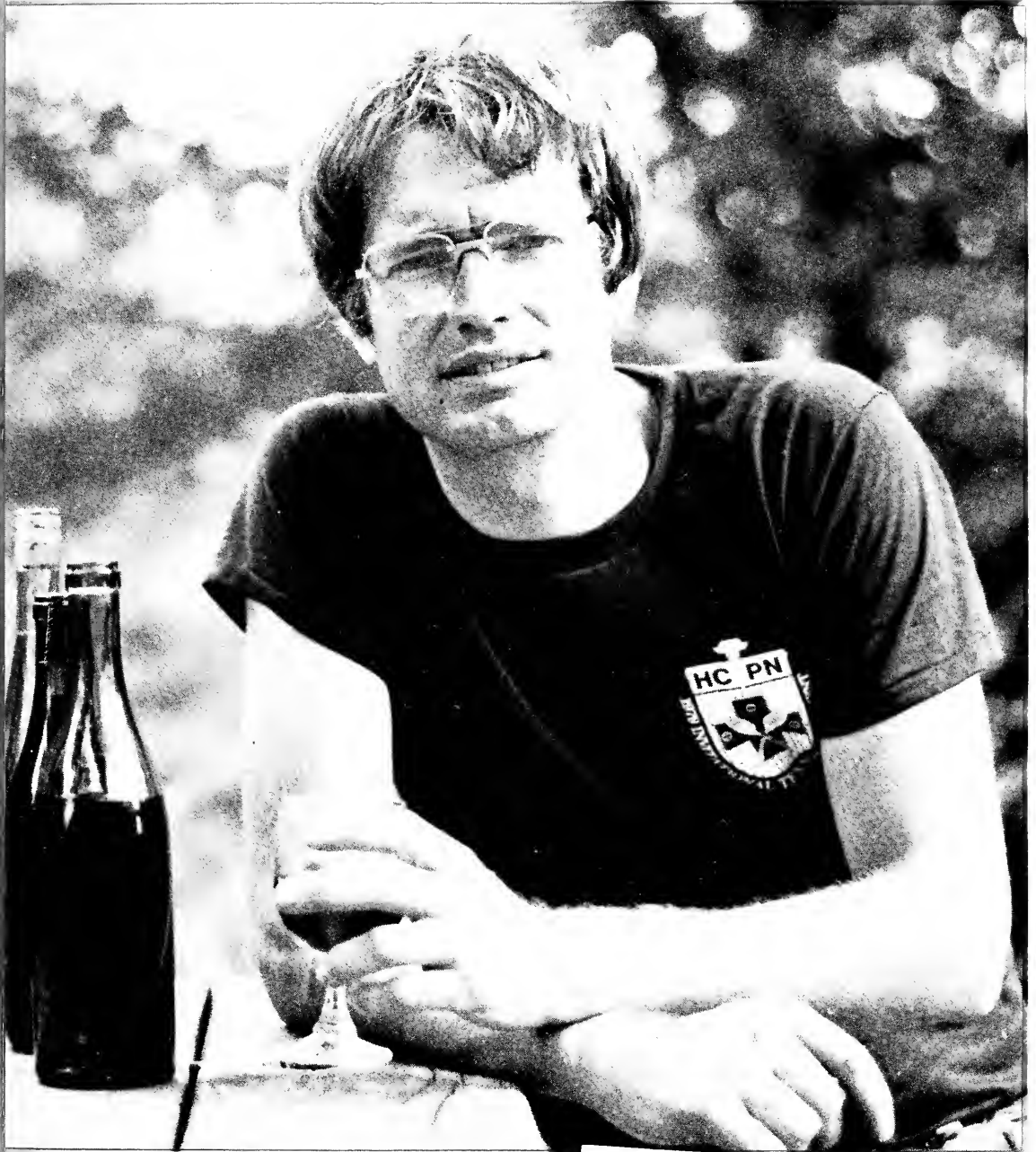


# CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

Vol. 44, No. 2

February 1980



**An old folk wine . . . 8**

★★★★★

**The market order . . . 3**

Library, University of  
Massachusetts  
Serials Section  
Amherst MA 01002

# Difolatan- the cranberry fungicide with a plus.



**A** cranberry fungicide that controls fruit rot, but at the same time slows ripening and color development is a product you can't afford.

DIFOLATAN® 4 Flowable is the answer. This efficient fungicide clings tightly, resists washing off even under rain or sprinkler irrigation. It's great protection against

fruit rot and won't affect ripening or color.

DIFOLATAN is compatible with most commonly used insecticides to save you spraying time. Ask your farm chemical supplier about DIFOLATAN for cranberries.

Avoid accidents: Read the entire label including cautions. Use all chemicals only as directed.



## ORTHO

Chevron Chemical Company



TM & ORTHO CHEVRON CHEVRON DESIGN  
DIFOLATAN-REG U.S. PAT AND TM OFF

Overproduction threatened

# Marketing Committee will set allotment

By MICHAEL COUTURE

Right now, things couldn't be better, implies Charles F. Hastings Jr., manager of the national Cranberry Marketing Committee.

Cranberry production is high—but so is demand—and the price of berries is good.

"Right now the growers are able to sell what they produce," Hastings said. "Prices are up to \$10 a barrel, and, not many years ago, it was just \$9 a barrel."

Although everyone is happy with the improvement in prices, Hastings added, it could lead to problems.

Good times entice prospective growers into the field and more growers could spell overproduction.

**THE TIME** might be coming, Hastings said, to regulate the production of berries.

This is where the Cranberry Marketing Committee would enter the scene.

The committee can't tell growers that they can't plant. But Hastings can tell them they can't market without an allotment.

So far, there are no allotment plans, but committee members are in favor of setting one up if overproduction threatens. The effect of an allotment is to encourage growers to produce only what can be sold.

"To this date, the allotment provisions in the marketing order have never been used," Hastings said. "But the ability to bring about the orderly expansion of the industry is the main strength of the order."

**COMPRISED OF** two



**CHARLES F. HASTINGS JR.**

(Photo by Michael Couture)

representatives from Massachusetts, two from Wisconsin, two from New Jersey and one from the Washington-Oregon area, the Cranberry Marketing Committee came into existence during the early 1960's, due to the inability of growers to sell cranberries, thereby forcing large-scale dumping of the fruit. The late 1960's and early 1970's showed sales increases, with more acreage being cultivated, and the concept of controlling production rather than destroying the excess became a reality.

Of the approximately 50 fruit and vegetable marketing orders in this country and Canada, Hastings said, the strength of the cranberry industry's order approaches those of the hop and

celery growers.

The seven member Cranberry Marketing Committee is to be increased by one—a public member without connections to the industry. Hastings said there have been quite a few applicants for the additional seat.

The committee posts are unpaid. Only Hastings receives a salary.

A grower with bogs in Rochester, Mass., not far from his office in Middleboro, Hastings is acutely aware of the problems in the industry, including those caused by uncontrolled growth.

**SINCE 1968**, Hastings has gathered reports on bogs throughout the nation. Berry handlers are required to keep a record of barrels, then submit it to the committee.

The first reports were derived

(continued on page 14)

## COVER PHOTO

**AUTHOR** Dennis Lynard of New Brighton, Minn., has been making his own wine for eight years. One of his favorites is cranberry. On page 8 he describes how to make the wine.

## MASSACHUSETTS GROWERS

Financial assistance is available for Scholarships and for Hospital and Medical care for Cranberry Growers, their Employees and the families of both when financial need can be shown. For information contact:

**URANN FOUNDATION**

P.O. Box 1788

Brockton MA 02403

Telephone 588-7744

# IT TAKES JUST ONE HERBICIDE USED ONCE A YEAR, TO GET TO THE ROOT OF YOUR WEED PROBLEMS.



proved to themselves that CASORON gives the most effective control possible. Control that makes good economic sense.

Try it yourself. Get the once-a-year herbicide that puts an end to weed problems: CASORON herbicide granules.

## CASORON G-4 HERBICIDE

CASORON is a Reg. TM of Philips-Dup B.V., Amsterdam, Holland.

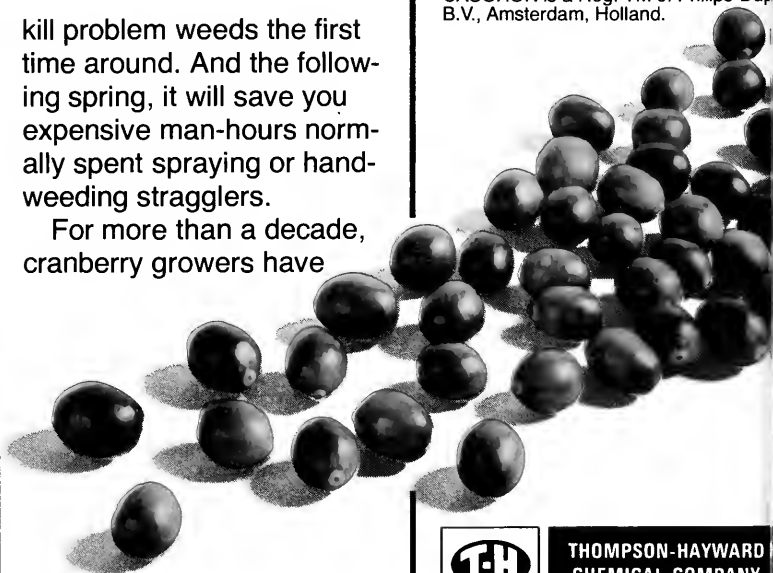
CASORON® G-4 herbicide, by itself, controls more than 40 weeds, including ferns, rushes and sedges that can cut your cranberry yields. And CASORON gets them all with just one pre-season application.

CASORON strikes weeds where they're most vulnerable: at their roots. It stops even the hardest perennials before they have a chance to rob precious nutrients from your crop.

Just apply CASORON granules to bogs in early spring and relax. CASORON goes to work immediately, to

kill problem weeds the first time around. And the following spring, it will save you expensive man-hours normally spent spraying or hand-weeding stragglers.

For more than a decade, cranberry growers have



THOMPSON-HAYWARD  
CHEMICAL COMPANY

• NORTH AMERICAN PHILIPS COMPANY  
P.O. Box 2383 • Kansas City, Kansas 66111



## The infinite balloon

"Utterly shocking" was the way Allan Grant, president of the American Farm Bureau Federation, recently described the U.S. Department of Health, Education and Welfare.

The department's current budget, he said, is the third largest in the world. It is outranked only by the budgets of the U.S.

Government and the entire Soviet Union.

"If you combine the budgets of all 50 states," Grant declared, "the sum would still fall *fifty billion dollars* shy of HEW's budget."

Now Education has been lopped away from Health and Welfare and there is a new Department of Education. Want to make a bet? No, don't. You'll lose this one. CRANBERRIES' bet is this: The two departments will spend more money, more quickly, than if HEW remained one department.

## Room for growth

CRANBERRIES' veteran correspondent in Wisconsin, Vernon Goldsworthy, alerted us to an article in the *Milwaukee Sentinel* with the headline, "Slim Pickings for Cranberries." The article discusses the "serious shortage of fresh cranberries" that developed around the state and nation at Christmas time.

We observed the shortage in our neck of the woods, too. And a survey of local supermarkets and grocery stores reveals that the situation hasn't bettered.

A major factor, of course, is the great demand for processed berries.

At any rate, the shortage is a sign that there is room for continued high production and increased acreage.

### CORRECTION

Several typesetting errors slipped by the proofreading stage in last month's excellent article on fruitworm control by Dr. Charles F. Brodel titled "Cranberry Fruitworm: Economics of Control."

Lines 7-9, paragraph 3 on page 6 read:

"The cost of treatment, a dollar's worth of cranberries was saved from fruitworm damage. Treatment"

They should have read:

"the cost of treatment. In other words, for each \$1 expended on treatment, a dollar's worth of cranberries was saved from fruitworm damage. Treatment"

Lines 4-5, paragraph 13 on page 6 read:

"honeybees. Complete kill of fruitworm and larvae may not occur"

They should have read:  
"honeybees. Complete kill of fruitworm eggs and larvae may not occur"

Line 2, paragraph 6 on page 3 read:

"the insecticide may be injected by"  
It should have read:  
"the insecticide may be injected by"  
Line 4, paragraph 8 on page 6 read:  
"each method provides equivalent"  
It should have read:  
"each method provides equivalent"  
CRANBERRIES regrets the errors.

## CRANBERRIES



THE NATIONAL CRANBERRY  
MAGAZINE

—Our 44th Year of Publication—

VOLUME 44—No. 2

February 1980

Send correspondence to:

P.O. Box 249  
Cobalt CT 06414

Phone: (203) 342-4730

Bob Taylor, Publisher/Editor

### ADVISORS, CORRESPONDENTS

Massachusetts—Dr. Chester E. Cross, Director, Massachusetts Cranberry Experiment Station; Irving Demoranville, extension Cranberry specialist, Massachusetts Cranberry Station; Michael Couture, East Wareham, Mass.

New Jersey—Philip E. Marucci, cranberry and blueberry specialist, Cranberry and Blueberry Laboratory, Chatsworth, N.J.; Mary E. Archibald, Collingswood, N.J.

Nova Scotia—I.V. Hall, botanist, Research Station, Kentville, N.S.

Oregon—Arthur Poole, Coos County Extension Agent, Coquille, Ore.

Washington—Azmi Y. Shawa, extension agent in horticulture, Coastal Washington Research and Extension Unit, Long Beach, Wash.

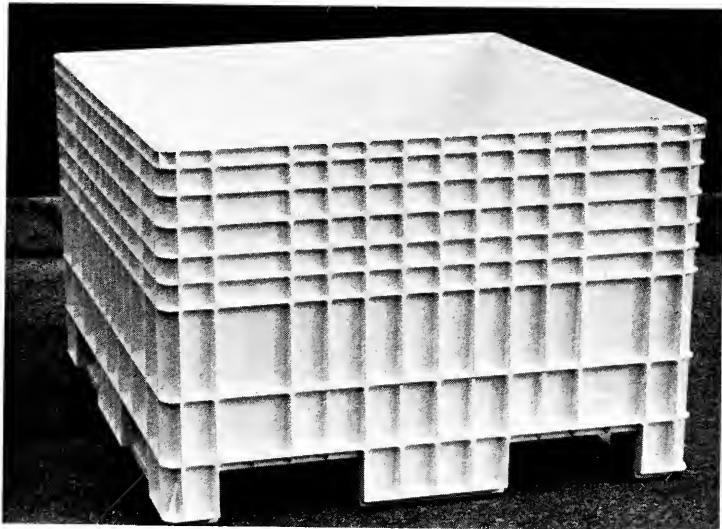
Wisconsin—Vernon Goldsworthy, Eagle River, Wisc.; Tod D. Planer, Farm Management Agent, Wood County, Wisc.; Joan E. Humphrey, Friendship, Wisc.

CRANBERRIES is published monthly by the Taylor Publishing Co., Wellwyn Drive, Portland CT 06480. Second class postage is paid at the Portland, Conn., Post Office. Price is \$5 a year, 75 cents a copy in U.S.; Canada, \$6 a year; all other countries, \$8 a year. Copyright 1980 by Taylor Publishing.

ISSN: 0011-0787

# **COLOSSUS II** **(Pallet Bin)**

***The Choice of Growers and  
Processors Everywhere***



NEVER! HAS A PALLET BIN ANSWERED THE DEMANDS OF GROWERS AND PROCESSORS. NOT UNTIL THE ULTRA-MODERN, SCIENTIFICALLY DEVELOPED, INCREDIBLY UNIQUE COLOSSUS II, THAT IS.

NOW! BECAUSE OF COLOSSUS II (INJECTION MOLDED POLYETHYLENE STRUCTURAL FOAM), THERE'S A PALLET BIN THAT'S LIGHTWEIGHT, RESILIENT, RESISTANT TO IMPACTS, EASY TO CLEAN AND LESS EXPENSIVE THAN WOOD TO MAINTAIN. FURTHERMORE, IT WILL NOT SPLINTER; HAS A SMOOTH INNER SURFACE; STACKS AND DUMPS EASILY; WITHSTANDS TEMPERATURE VARIATIONS; AND RESISTS STAINS FROM CAUSTIC SOLUTIONS.

SHOULDN'T YOU CHECK COLOSSUS?

**General**  
★ ★ ★ ★ ★

**GENERAL BOX COMPANY**

5451 ENTERPRISE BLVD. • TOLEDO, OHIO 43612

PHONE (419) 729-3921

# The cranberry program in Wisconsin: a review

**Editor's Note:** The following address by Dr. Malcolm N. Dana, Professor, Department of Horticulture, University of Wisconsin-Madison, was given to the Wisconsin Cranberry Growers Assn. on Jan. 8.

Over 900,000 barrels of cranberries were harvested from Wisconsin marshes in 1979.

These berries, from about 7000 acres, were produced by the most sophisticated cranberry growers in the world.

The full exploitation of your management capabilities in the future will produce high yields in those years when the weather cooperates to produce optimum growing conditions. We cannot control the weather. We can only modify its impact through the controlled manipulation of water primarily for temperature control.

We can contribute to the knowledge you find helpful for making management decisions. It is on this topic that I propose to address today.

**RESEARCH IN** cranberries is a continuing interest of several members of the faculty of the Wisconsin Agricultural Experiment Station. Each of these people receives program support from your industry and from state and federal appropriations. Each has other program responsibilities beyond their interest in cranberries.

Dr. Elden J. Stang joined the faculty of the Department of Horticulture on Sept. 1, 1978. Dr. Stang has assumed the extension education responsibilities previously held by emeritus Professor Klingbeil. With your industry support, he has initiated

a research program to evaluate methods and materials for enhancing fruit color development in cranberries.

New chemical treatments that have shown promise in the first year of evaluation are Promalin at 25-50 ppm and Promalin (25-50 ppm) plus Alar (1,000 ppm) applied in late July. Two numbered materials, ABG 3034 and ABG 3035, showed some effect when applied in late August or early September.

These materials may remain active over a wider range of temperatures than has been the case with Ethrel, which only works well at temperatures above 60 degrees F and when applied within a few weeks of harvest. Refinement of rates and timing for optimum response will precede any possible label adoption.

**THE DISEASE** control program under the direction of Dr. Boone has continued along three lines—

fungicide evaluation, the study of disease organisms, and selection and cultivar evaluations. Dr. Boone is evaluating combinations of difolatan with other fungicides and varying the timing and concentration of difolatan sprays in an attempt to improve rot control and reduce costs of presently recommended difolatan programs. Recommendations will be modified as improved scheduling is proved useful.

The studies on fungal organisms have continued to produce new information basic to a full understanding of the pathogens attacking cranberries. A strain of *Guignardia* fungus is being proposed as a new species previously not described on cranberry. He has also found that the black rot disease of cranberry in New Jersey is not always associated with *Ceuthospora lunata* but that a significant portion is associated with a second fungus, *Strassaria* sp. Fungicide programs to control *Ceuthospora* may or may not be effective against the second

(continued on page 14)

FOR BANKING SERVICE  
AND CONVENIENCE  
UNSURPASSED IN  
YOUR COMMUNITY.

THE  
NATIONAL BANK  
OF WAREHAM

<u>Marion</u>	<u>Wareham</u>	<u>Carver</u>
36 Main St.	237 Main St.	Main & Center Sts.
	295-2100	

MEMBER F.D.I.C.





# How to make cranberry wine



By DENNIS LYNARD

As the hobby of making wine at home grows more and more popular, amateur enologists are turning to some of the almost forgotten folk wines of the past—such as cranberry.

Whether it is served at cellar temperature during the festive holiday period or over ice on a warm summer day, cranberry wine seems to complement the occasion. It's a tasty companion to turkey, beef, lamb or pork and is especially good alone, either as an aperitif or after dinner.

Nearly all the equipment you'll need to make this medium-sweet wine can be found around the house.

A 2-GALLON plastic pail will work perfectly as a primary fermentation vessel for starting one gallon of wine. You can also use a 2-gallon stone crock, often found in local antique stores.

Stainless steel also can be used, but it's the only metal that should ever come into contact with your wine. Other metals, such as iron or tin, can impart bad flavors as a result of chemicals formed by the fermentation process acting on the metal.

A sheet of plastic makes the best cover for any size fermentation vessel. Tie it down with string, rubber bands or strips of elastic pinned together. The cover doesn't have to be airtight. At this stage, its purpose is to keep out dust and fruit flies.

A nylon bag or even a woman's nylon stocking can be used to hold the berries and raisins and keep any stems, seeds or pulp out of the

primary fermentor.

Syphoning the wine is done with a 6 foot length of ¼-inch plastic tubing, readily available at a drug or hardware store.

**SECONDARY** fermentors, which hold the wine for its longest period of fermentation, are usually glass so that you can observe the wine for clarity. One gallon distilled water or apple cider bottles work fine (start saving them early!).

Fermentation locks can be purchased at a wine making supply store or mail order house. This is a low-pressure valve inserted into a rubber plug that fits snugly into the neck of the secondary fermentor. The lock keeps air and fruit flies out of the secondary, while allowing the carbon dioxide, a byproduct of the yeast acting on the sugar to form alcohol, to escape.

If there isn't a wine making



**CRANBERRY** wine can be easily made with equipment you have around the house.



**TRY** not to drink all of your cranberry wine right away. Check at various times to find the amount of aging you prefer.

supply store near you, a plastic sandwich bag around the neck of the secondary fermentor, secured with a rubber band, makes a good substitute.

Cleanliness is the key to successful wine making. Every piece of wine making equipment should be carefully cleaned, and even sterilized, if you suspect that

**CORRUGATED  
CULVERT PIPE  
and**

**FLOW GATES**

Aluminum - Galvanized  
Asphalt Coated

**Felker Bros.  
Corp.**

**MARSHFIELD WISCONSIN**

**Area 715 384-3121**



might be contaminated with something that could affect the flavor of your wine.

**HERE'S A RECIPE** for making a gallon of cranberry wine. For a larger quantity, such as five gallons, simply multiply the ingredients by five and use an 11-gallon plastic wastebasket as a primary fermentor.

5 lbs. fresh or frozen cranberries  
1 lb. raisins  
5 lbs. white granulated sugar

3/4 quarts of warm water  
1/2 of a small orange  
1 package of wine yeast or  
1/2 package dry, granulated baking yeast

Crush berries and chop raisins.

A blender does a good job of this. Add about 1 cup of fruit at a time, adding a small amount of water to each batch. Slice the orange half and combine the cranberries, raisins and orange in the nylon bag, tie, and put it in the plastic or stone primary fermentor.

**'CLEANLINESS IS THE KEY TO SUCCESSFUL WINE MAKING.'**

Put the sugar and water over the heat, stir, and let rest overnight. Add the yeast by sprinkling it on the surface—do not stir in.

After fermentation begins, stir every day or two, breaking up the "cap." The cap is formed by rising bubbles which carry foam and bits of escaped skin and pulp to the surface. This has to be broken up from time to time or it dries out and becomes an ideal breeding ground for bacteria.

When the violent "storm" or agitation subsides (usually in a week or so), transfer the wine to the glass secondary fermentor, straining out any seeds, skins or pulp you go along. Attach a fermentor

lock. Keep the wine topped up with sugar water to within a few inches of the top.

Syphon the wine again in three weeks and then again in three months. At that point, the wine should have reached the 15 percent alcohol level. When it is stable and clear, it's ready to bottle.

**'YOUR WINE WILL BE READY TO DRINK IN ONE TO NINE MONTHS.'**

There are several methods of bottling your wine, ranging from buying bottles, corks and a corker from a wine making supply house to collecting your own bottles and reusing the corks and screw caps (a somewhat questionable practice!). If you use the latter method, be sure to clean the bottles well and to boil the old corks and screw caps.

If you use screw caps on your wine bottles, be sure the fermentation process is complete before bottling. Wine that's still fermenting in a corked bottle will blow the cork out. A bottle of



**THIS medium-sweet wine is good anytime—as an aperitif, with meals or after dinner.**

fermenting wine that's screw-capped will explode.

**YOUR WINE** will be ready to drink in one to nine months.

Some claim the wine gets better the longer it stands and some say it's at its best when first bottled. Others say it really makes no difference.

The real answer most likely is one that each cranberry wine maker has to discover for himself/herself.

## Niemi Electric Co.

ROBERT NIEMI

ELECTRICAL CONTRACTORS

HEAT, LIGHT and POWER WIRING

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL



TEL. 295-1880

Robert Niemi Pinchurst Dr.

Wareham, Mass.



Filling enough for a hearty meal or, when made bite-sized, toothsome morsels for a brunch. They're cranberry corn fritters. Colonial dames fed stacks of breakfast fritters to their seafaring loved ones.

### CRANBERRY CORN FRITTERS

- 1 cup fresh cranberries
- 1 cup sugar
- 1 cup corn kernels
- 2 eggs
- Salt and pepper
- 1 teaspoon baking powder
- ¾ cup flour

¼ cup powdered sugar  
Approximately 1 cup vegetable oil for frying

Chop cranberries and mix with sugar. Combine corn, eggs, salt and pepper. Stir in baking powder and flour to make a heavy batter. Add cranberry mixture. Drop spoons of batter into ½ inch hot fat in a shallow frying pan. Fry golden brown but cook only a few at a time so fritters won't stick together. Sprinkle generously with powdered sugar before serving.



### MASSACHUSETTS

December was a very warm month, averaging 3.2 degrees a day above normal. It was the warmest December since 1973 and ninth warmest in our records. Maximum temperature was 58 degrees on the 7th and the minimum was 6 degrees on the 19th. Warmer than average periods were the 5th-8th, 11th-13th, 16th, 17th, 23rd-25th and

29th. Cooler than average days were the 14th, 15th and 18th-21st.

Precipitation totaled 3.62 inches or about 0.6 inch below normal. There were only seven days with measurable precipitation, with the greatest amount of 1.42 inches on the 7th. Snowfall was only a trace, which is not unusual for us.

For the year 1979, our temperature was just above normal (actually +0.1

# DIRECTORY for Cranberry Growers

**The CHARLES W. HARRIS Company**

451 Old Somerset Avenue  
North Dighton, Mass.  
Phone 824-5607

**AMES**  
Irrigation Systems  
**RAIN BIRD**  
Sprinklers  
**HALE**  
Pumps

Highest Quality Products  
with Satisfaction Guaranteed!

### The scoop of the year!

*Cranberry Flavor, Fact and Folklore in*

**THE CRANBERRY CONNECTION**, by Beatrice Buszek. Your favorite berry pops up in kitchen-tested recipes for every delight from Cranberry Bog to Cranberry-Banana Bread, Cranberry Avocado Dip, and countless other desserts, drinks, salads, entrees. "A fascinating revelation of the many uses for cranberries . . . you'll find this book a treasure."—*Des Moines Register*. Paperback, \$7.95.



Please send \_\_\_\_\_ copies of **THE CRANBERRY CONNECTION**, \$7.95 each.

Name \_\_\_\_\_

Address \_\_\_\_\_

Zip \_\_\_\_\_

Add \$1.00 for postage; Conn. residents add 7% sales tax.

**CRANBERRIES MAGAZINE**  
P. O. Box 249, Cobalt, CT 06414

## Farm Credit Service

Box 7, Taunton, Mass. 02781  
Tel. 617-824-7578

•  
**PRODUCTION CREDIT LOANS**  
**LAND BANK MORTGAGES**

Office - on Route 44  
1/4 Mile West of Rt. 24

# Does berry farming harm Thunder Lake?

At Thunder Lake in northern Wisconsin, a classic dispute has broken out between lakeside residents and cranberry growers over the diversion of water from the lake for flooding of the bogs.

The property owners—some of whom run resorts—complain that the water diversion lowers the level of the lake, causes pollution and spoils fishing.

The growers respond that the water is returned to the lake.

As for pollution, Charles Goldsworthy, one of the bog owners, says the water returned is more pure because of filtration.

The small amounts of fertilizer used, he adds, is almost entirely absorbed by the plants.

The state Department of

Natural Resources held hearings Jan. 16 and 17 on whether to grant bog owners Goldsworthy and Ralph Sampson permits to divert lake water. Goldsworthy is president of Cranberry Products Inc. of Eagle River.

Another hearing will be held Feb. 1 in Madison and the DNR is expected to make its recommendations around the middle of this month.

The case is being watched with interest by the Wisconsin Cranberry Growers Assn., which is challenging in the state Supreme Court a lower court ruling that bog owners must get permits to divert water.

Thunder Lake is located near the small resort community of Three Lakes.

gree). Substantially warmer than normal months were March, May and June. Record warm at East Wareham, July, August, September and October. Months below normal were February, March, April, May, June, July, August, September and October. Maximum temperature for the year was 91 degrees on May 10 (unusual, but not a record) and the minimum was 8 degrees on Feb. 12. The 15 day period from Feb. 9 to 15 was

slow freezing the entire time and the coldest stretch.

Precipitation for 1979 totaled 55.35 inches, which is about 9½ inches above normal and over 9 inches more than in 1978. This was the fifth wettest year in our records. Largest total precipitation from one storm was 4.76 inches on

Jan. 24-27. Months with substantially above normal precipitation were January (a record), February, April, May and August. Months with much below normal precipitation were March, June and September.

Snowfall for the year totaled only 13.7 inches, the least since 1953 and fifth smallest total in our records and about 50 percent of normal. This followed the record year of 1978. The only snow of any consequence was 6.5 inches on Feb. 8.

I.E.D.

## WISCONSIN

After an unusually mild December, the weather in January returned to a more normal winter pattern with some snow and cold temperatures.

The first major winter storm of the season occurred Jan. 6. A total of 4 to 6 inches of snow fell across the northern half of Wisconsin, while southern

areas received 1 to 3 inches. Very strong westerly winds caused blizzard conditions in the north and made

traveling nearly impossible. Temperatures dropped sharply following the storm. High temperatures in the second week of January were near zero in the north and in the single digits in the south. Overnight lows fell well below zero in the north and near zero or below in the south.

Strong southeast winds brought warmer temperatures on the 10th.

—Wisconsin Agriculture

Reporting Service



**Muriel Stefani**  
Representative



**Martin B. Person, Jr.**  
President

### STOCK QUOTATIONS

“He which soweth sparingly shall reap also sparingly; and he which soweth bountifully shall reap also bountifully.”

—II Corinthians 9:6



### GAGE WILEY & CO., INC

40 Court St., Plymouth, Massachusetts 746-3322  
Massachusetts Toll-free IN WATS 1-800-242-0263

*New England Stock Broker  
For Over 45 Years*

# Rainiest year in 50 year history

By PHILIP E. MARUCCI  
Cranberry, Blueberry Specialist  
Chatsworth, N.J.

The weather at Pemberton, N.J., in 1979 could be described as excessively rainy and cool.

Precipitation was above normal in 10 months (in all except April and December). Temperature was below normal for the seven months from April through October, except for August, which was only 0.2 degrees F above normal, and all except April were rainier than average.

It was *the* rainiest year in the 50-year weather recording history at Pemberton. The total of 61.75 inches was 17.64 inches above normal and surpassed by about 1 3/4 inches the previous record of 60.01 inches in 1958. In the half century of weather observing, rainfall has been above 60 inches only two times and above 50

inches 10 times.

The average maximum daily temperature for the year was 64.0 degrees F and the minimum was 41.7 degrees F, giving an annual average daily temperature of 52.85 degrees F, which is 0.85 degrees F below normal. Only in nine years was there a lower annual average temperature.

Extremes in temperature were 93 degrees F on Aug. 1 and 12 below zero on Feb. 18. The maximum daily temperature was the lowest in 50 years. The minimum was the second lowest ever recorded in Pemberton, the coldest being 17 below zero on Feb. 9, 1934. Although February 1934 was the coldest single month, averaging 18.0 degrees F compared to 22.6 degrees F for February 1979, the latter month had a record breaking number of sub-zero days. There

were eight days below zero in February 1979 compared to six in February 1934.

(It may be of interest to give a short summary of the sub-zero temperatures which have been recorded in the half century at Pemberton. Sub-zero temperatures occur with about the same frequency in January and February. These frigid readings have occurred in 15 years in January, 14 years in February, six years in December and only once in March. The number of such days recorded: 34 in February, 33 in January, seven in December and the one in March. If the weather pattern stay the same, the probability of a sub-zero minimum temperature in Pemberton in January and February is once every 60 days or about once a year. Extremely warm days were not frequent as usual in 1979.)

An unusually small number

A MOST COMPLETE INVENTORY OF  
IRRIGATION ACCESSORIES



# LARCHMONT

ENGINEERING & IRRIGATION, INC.

P.O. Box 66, 11 Larchmont Lane, Lexington, MA 02173 (617) 862-2550

IRRIGATION EQUIPMENT DESIGNED ESPECIALLY  
FOR THE CRANBERRY INDUSTRY

FOR EXAMPLE:

- Gorman-Rupp Self Priming Electric Sprinkler Pumps*
- Proven Quick Couple Riser*
- Ingersoll-Rand Water Harvest Pumps*
- Aluminum Insert Coupling For 4" Poly Pipe*

Contact:

Larchmont Engineering  
Phil Tropeano, President  
(617) 862-2550 (Call Collect)



Contact:

Bill Stearns, Plymouth, Mass.  
(617) 746-6048  
(617) 746-2610



rs in the 90 degree range  
urred. There were no such days  
June and only five each in  
y and August. The total of 10  
the year was far below the  
rage of 29 per year.

Another unusual feature of  
weather was the frequency of  
ny days in April through  
gust. There was a total of 55  
ny days in the five month  
iod, an average frequency of  
e rainy day in about every three  
ys. In May there were periods  
nine rainy days in 14 days and  
in a period of 18 days. In late  
y and early June, there were  
rainy days in a succession of  
l days.

The weather had a ruinous  
ect on the blueberry crop in  
Brlington and Atlantic Counties.  
rprisingly, the frequent sub-zero  
dings in February did not cause  
excessive amount of winter  
king. The spring season was also  
king in severe spring frosts.  
However, the frequent rains and  
e cool weather in April and May  
eated conditions favorable for  
otrytis disease and was unfavor-  
ale for pollination. As a result,  
repreciable losses to the blue-  
erry crop, especially Jerseys and  
ner late varieties, were sustained  
most growers. In cranberries,  
e excessive rains caused some  
duction of yields. A good crop  
s harvested but the potential  
a record crop, as indicated by  
e excellent flowering, was not  
chieved.

### EDUCATIONAL PROGRAMS FFERED IN OREGON

By **ARTHUR POOLE**

Educational programs of special  
rest to the cranberry farmer are  
ng offered by the Coos County  
ce of the Oregon State University  
ension Service.

The topics, dates, sites, and explana-  
s of the programs are below:

"A Commodity Commission for  
nberries in Oregon?," Feb. 21,  
0 p.m., Ocean Spray Conference  
om, Bandon—Oregon has seven  
gricultural commodity commissions

from filberts to Bartlett pears.

Commodity commissions assist farmer  
members with marketing, research and  
other services. This program will discuss  
the advantages and disadvantages of  
commodity commissions for cranberry  
farmers. Conrad Weiser, head of OSU's  
Department of Horticulture, will lead  
the discussion.

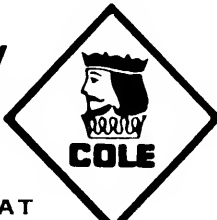
"Managing Honey Bees for Cranberry  
Pollination," March 25, 7:30 p.m.,  
Ocean Spray Conference Room, Bandon  
—Mike Burnett, OSU entomologist and  
bee expert, will discuss practical tips

for managing pollinating bees in cran-  
berry bogs.

"Leaf Analysis for Better Cranberry  
Production," May 20, 7:30 p.m., Ocean  
Spray Conference Room, Bandon—  
Results of recent cranberry tissue  
analysis will be discussed.

"Cranberry Disease Management,"  
June 5, 7:30 p.m., Ocean Spray  
Conference Room, Bandon—Dr. Peter  
Bristow, research plant pathologist at  
the Western Washington Research and  
Extension Unit in Puyallup, will explain  
results of recent disease management  
studies in Washington and Oregon.

## WISCONSIN CRANBERRY HEADQUARTERS FOR



**EVITAL • SOLO • DIQUAT**  
**2-4-D • DOWPON • ETHREL**  
**SEVIN • PARATHION • GUTHION • DIAZINON**  
**KOCIDE • DIFOLITAN • FERBAM**  
**COPPER SULFATE • PRINCEP**

## Cole Chemical Supply

DIVISION OF *Hopkins* AGRICULTURAL CHEMICAL CO.  
 P.O. BOX 7211, MADISON, WISCONSIN 53707  
 608-221-1581

Office  
295-2222

## BEATON'S CRANBERRY GROWERS SERVICE



**WAREHAM, MASS.**

K. Beaton  
295-2207

D. Beaton  
888-1288

P. Beaton  
947-3601

Specializing in

- DITCHING
- SANDING
- COMPLETE BOG  
MANAGEMENT

- NETTING
- WEED CLIPPING
- HARVESTING  
(Wet and Dry)

Also

Complete line of portable Crisafulli Pumps 2" - 16"  
Plastic netting for suction boxes

## MARKETING . . .

(continued from page 3)

in part by computing production levels from a scale applied to the aerial photos of bogs around the country. The cost of the project was a mere \$4,000, a vast contrast to the estimated \$40,000 cost to aerially photograph Plymouth County, Massachusetts, bogs alone.

It was a matter of Hastings knowing where to look for the photos, the property of the federal government. His knowledge, acquired through 10 years with the Soil Conservation Service in Plymouth County, made this possible.

An agronomist by education, Hastings was graduated from the University of Rhode Island. It was during his tenure with the Conservation Service that Hastings became familiar with bogs and berries, leading him eventually to purchase his own cranberry enterprise.

## WISCONSIN PROGRAM . . .

(continued from page 7)

fungus. Dr. Boone has also identified a third disease caused by *Exobasidium* sp. on cranberry—one in which possibly another unidentified species may be growing systematically in the host cranberry plant, causing spindly and abnormal growth of uprights.

Berries harvested from the cultivar plots at Tomahawk, DuBay and Jacob Searles are being evaluated for size and quality. These data are accumulated along with yield data to provide an informational base for cultivar recommendations. An offshoot of this work is the study of several hundred seedlings of "Ben Lear" grown at the Dave Rezin marsh. From these seedlings, over 30 selections have been made, with some of these selections showing very early ripening and very large size. The most promising clones have been propagated in larger

plots for field evaluation of horticultural characteristics, as well as disease and insect susceptibility.

### THE WEED CONTROL

program has moved ahead in 1979 with a broad evaluation of the rope wick applicator for use with glyphosate herbicide. Many weeds were found to be readily suppressed and often times killed by a thorough wiping above the cranberry vines. Berry samples for residue analyses were forwarded to the appropriate laboratory in Florida. Data derived from these analyses will be used to support a label registered by regulatory agencies.

We have found that cotton-grass, wide leaf grass, bunchgrass, slough grass, stargrass, wiregrass, goldenrod, asters, bluejointgrass, hardhack, willows and thistles are amenable to this kind of weed management program. We are sure other species will be added to the list as our plot evaluation expands in the coming months.

Plots at two locations have shown that napropamide, Devrinol, is a safe and effective herbicide for pre-emergence use against sticktites. Information has been provided to support label registration for this herbicide in Wisconsin.

**CRANBERRY INSECT** studies were continued with Dr. C.F. Koval in charge. Pheromone traps were found to be effective tools for monitoring the emergence and flight of cranberry girdler moths. Peak flight was between July 5 and July 14. Implementation of this device will lead to timely control applications when population density warrants.

No new insecticides were registered in the past year but requests for labeling of orthene and Dursban have been filed with the prime producers of these insecticides. The status of these registrations is undetermined at this time.

Spanworms continued to be the most significant insect pest problem of 1979. Control failures were associated with application tech-

niques. Irrigation applications require supplemental application methods, particularly along bords and on ditch banks. Sevin was the most effective control when used as the XLR or Savit formulation.

**GENETIC AND** cytogenetic studies under the direction of Dr. Peloquin were continued. Additional data on pollen fertility, distribution of sterile pollen in pollen tetrads and germination pollen in cranberry styles and in boron-sucrose solutions were obtained.

Microscopic examination of number of ovules per fruit and aborted ovules per fruit were conducted. It was found that chromosomal behavior in the ovule was normal and that abortion occurs after meiosis or the reduction division.

A technique for harvesting uprights with flower buds in the fall and growing these cuttings in the greenhouse was developed. Pollination, fruit set and seed development were excellent. The background material for developing a meaningful breeding program was now at hand.

## TAX QUIZ

Q. What is the social security (FICA) tax rate for 1979?

A. In 1979, the maximum FICA wage base increased to \$22,900 with the FICA tax rate rising to 6.1 percent each for employer and employee (a total of 12.26 percent).

## CRANBERRY GROWER REALTY

Listings of buyers and sellers welcomed on cranberry acreage and upland

Appraisals

DOUGLAS R. BEATON

E. Sandwich, Mass.  
02537

(617) 888-1288

**CRANBERRY SCHOOL  
HELD IN WISCONSIN**

The 1980 Wisconsin Cranberry School will be held March 26-28 in Wisconsin Rapids, Wisc.

Interested parties should make contact with Tod D. Planer, University of Wisconsin Extension, Wood County Courthouse, Wisconsin Rapids WI 54494, or Elen J. Stang, Extension Horticulturist, UWEX, 208C Horticulture Building, 1575 Linden Drive, Madison WI 53706, for details.

**FUNGICIDE TALK SET**

By AZMI Y. SHAWA

On Feb. 8 at 2 p.m., Dr. Pete Bristow will give an update on his fungicide research work in a talk at the Coastal Washington Research and Extension Unit in Long Beach. Dr. Bristow will present a similar talk on Feb. 12 at 7 p.m. at the North Willapa Harbor Grange Hall in Gayland.

**GOES TO SAUDI ARABIA**

Alvin K. Potter, former chief

statistician for the USDA's New England Crop and Livestock Reporting Service in Concord, N.H., is now working for the U.S. government in Saudi Arabia.

Charles Hammond has taken Potter's place in Concord.

**NUMBER OF FARMS DOWN**

Thirty years ago, Wisconsin had 174,000 farms. Today it has 94,000, according to the Wisconsin Agriculture Reporting Service.

**STAY INFORMED**

subscribe to CRANBERRIES

\$5 a year; \$9 two years

Send check or money order to:

CRANBERRIES  
P.O. Box 249  
COBALT CT 06414

**BARK RIVER Culvert and Equipment Co.**

(Wisconsin-Michigan Growers)

- ALUMINUM HEADGATES FABRICATED TO YOUR SPECIFICATIONS
- HAND WHEEL OPERATED GATES
- ALUMINUM CORRUGATED PIPE
- INTERNATIONAL POWER UNITS
- INTERNATIONAL CRAWLER TRACTORS
- WARNER & SWASEY EXCAVATORS
- WALDON LOADERS AND USED EQUIPMENT

Eau Claire, Wis.  
715-835-5157  
Madison, Wis.  
608-222-4151

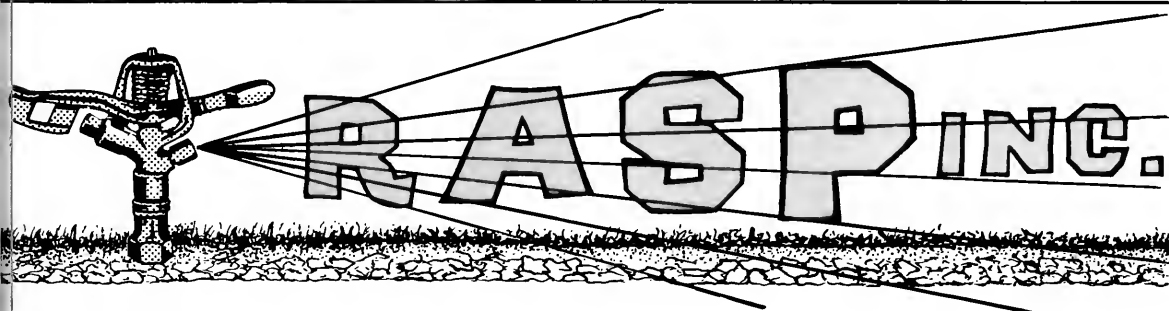
Escanaba, Mich.  
906-786-6920  
Green Bay, Wis.  
414-435-6676

Milwaukee, Wis.  
414-461-5440  
Ironwood, Mich.  
906-932-0222



**INTERNATIONAL CONSTRUCTION EQUIPMENT**

INTERNATIONAL HARVESTER COMPANY



**AUTHORIZED AGWAY REPRESENTATIVE**

LICENSED SPRAYING OF PESTICIDES (Seasonal)

WITH A COMPLETE LINE OF:

CRANBERRY INSECTICIDES • FUNGICIDES  
HERBICIDES • MITICIDES • and FERTILIZERS  
IN STOCK!

ROBERT A. ALBERGHINI - SPRAYING  
RFD 5 PLYMOUTH STREET, CARVER, MASS. 02330  
TELEPHONE: 866-4429

For further information, call evenings after 5:30

**Bugs**



# IN EVERY INDUSTRY THERE IS A NAME FOR QUALITY



OCEAN SPRAY CRANBERRIES, INC., PLYMOUTH, MASS. 02360

AN EQUAL OPPORTUNITY EMPLOYER





# CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

Vol. 44, No. 3  
77

March 1980



**Living with gov't . . . 6**

★★★★★

**Growth inhibitor . . . 3**

Library UMass  
Serials Section  
Amherst MA 01002

# Difolatan- the cranberry fungicide with a plus.



**A** cranberry fungicide that controls fruit rot, but at the same time slows ripening and color development is a product you can't afford.

DIFOLATAN® 4 Flowable is the answer. This efficient fungicide clings tightly, resists washing off even under rain or sprinkler irrigation. It's great protection against

fruit rot and won't affect ripening or color.

DIFOLATAN is compatible with most commonly used insecticides to save you spraying time. Ask your farm chemical supplier about DIFOLATAN for cranberries.

Avoid accidents: Read the entire label including cautions. Use all chemicals only as directed.



## ORTHO

Chevron Chemical Company



TM & S ORTHO CHEVRON CHEVRON DESIGNS  
DIFOLATAN - REG U.S. PAT AND TM OFF

# Growth inhibitor in cranberry leaves

By **ROBERT M. DEVLIN**  
Massachusetts Cranberry  
Experiment Station

Early in the history of cranberry culture, growers discovered that trash—leaves, berries and dead vines—that accumulated following harvest was detrimental to vine growth.

This discovery was made by accident.

Growers learned that berries that had dropped to the ground during harvest could be retrieved by flooding the harvested bog and floating off the loose berries. In fact, these berries were called "bats."

In addition to collecting "bats," some of the growers also removed trash that had floated up as a result of flooding. The benefit of trash removal was quickly observed. Vines

grew better and yields improved.

**AT THE CRANBERRY** Experiment Station, we have considered the reasons why "trash flows" appear to improve vine growth and yield. We know, for example, that removing trash discourages the infestation of the girdler worm (*Chrysoteuchia topiaria*), a particularly destructive pest. We also know that during periods of drought, vine roots growing in heavy trash accumulation suffer desiccation, and, as a result, marginal growth or even vine death occurs.

We have discovered yet another reason why trash accumulating on a bog retards vine growth and may even "kill out" areas of the bog. It appears that the cranberry leaf contains a potent *plant growth inhibitor* that is probably released as the detached leaf breaks down.

It is very possible that if enough of the inhibitor is released, vine growth will be inhibited. The present study describes how we detected the presence of the inhibitor and our attempts to isolate it.

## MATERIALS AND METHODS

A 200 g sample of cranberry (*Vaccinium macrocarpon* cv 'Early Black') leaves was blended for 3 min at high speed with 1500 ml of 80 percent acetone.

For this purpose, a large, stainless steel, commercial Waring blender was used. The homogenate was poured into a 2000 ml erlenmeyer flask and stored for 48 hr at 14 degrees C.

During storage, the homogenate was stirred several times to facilitate extraction. The

(continued on page 12)



Figure 1. Effect of 1 and 5 ml of crude extract from cranberry leaves on wheat germination and growth.

# IT TAKES JUST ONE HERBICIDE USED ONCE A YEAR, TO GET TO THE ROOT OF YOUR WEED PROBLEMS.



CASORON® G-4 herbicide, by itself, controls more than 40 weeds, including ferns, rushes and sedges that can cut your cranberry yields. And CASORON gets them all with just one pre-season application.

CASORON strikes weeds where they're most vulnerable: at their roots. It stops even the hardest perennials before they have a chance to rob precious nutrients from your crop.

Just apply CASORON granules to bogs in early spring and relax. CASORON goes to work immediately, to

kill problem weeds the first time around. And the following spring, it will save you expensive man-hours normally spent spraying or hand-weeding stragglers.

For more than a decade, cranberry growers have

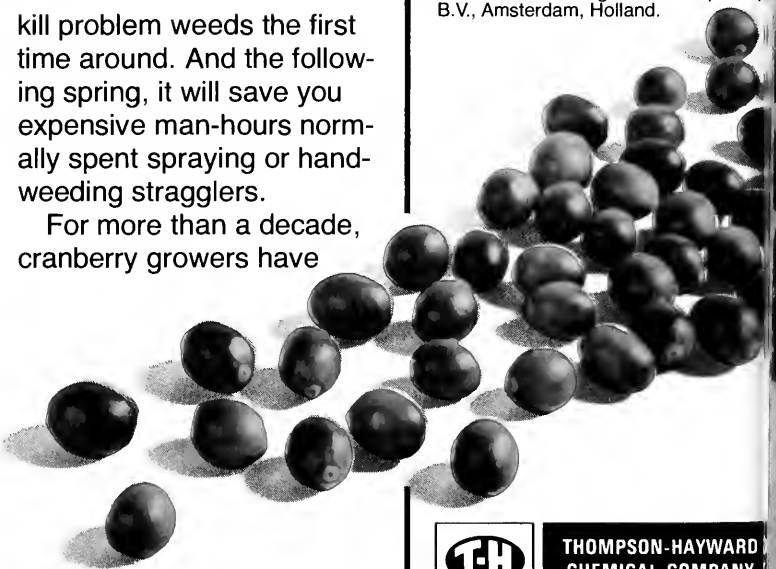
proved to themselves that CASORON gives the most effective control possible. Control that makes good economic sense.

Try it yourself. Get the once-a-year herbicide that puts an end to weed problems: CASORON herbicide granules.

## CASORON

**G-4 HERBICIDE**

CASORON is a Reg. TM of Philips-Dup B.V., Amsterdam, Holland.



**THOMPSON-HAYWARD  
CHEMICAL COMPANY**

NORTH AMERICAN PHILIPS COMPANY  
P.O. Box 2383 • Kansas City, Kansas 66117



## Hope study settles issue

Hopefully, the study planned for Thunder Lake in Wisconsin will determine once and for all whether cranberry growing is harming the body of water.

Hopefully, too, the study will contain information that can be drawn upon to settle the general question of the impact—if any—of cranberry cultivation on surrounding bodies of water.

Too often, expensive expert studies that have universal relevance receive only limited dissemination.

## More facts, less rhetoric

War clouds darken over bogs and marshes as they do elsewhere. On the one hand, a rightful posture is being struck that says the U.S. regards as inviolable the soil of every nation.

On the other hand, words are being sounded by the Administration that strain credulity and introduce an apocalyptic air. Is the invasion of Afghanistan really the worst threat to world peace since World War I? What about the Berlin blockade and the Cuban missile crisis?

Did the Russians really "destabilize the peace," as Jimmy Carter said in a recent press conference? Or hasn't blood been getting spilled in Afghanistan since a Communist takeover in that country in 1978? And what is the story to reports that the Chinese and others had been aiding the Afghan rebels all along?

Is the invasion a first step to get at the oil fields in Iran, Pakistan and the Arabian Sea and Strait of Hormuz? Or might it be likened to when Lyndon Johnson sent the Marines into the Dominican Republic when he feared a Castro-like takeover there? Or can it be compared to what the U.S. might do if a Marxist coup was threatened in Mexico?

None of this should be read as an excuse for the Soviet intervention. It is reprehensible and should be condemned in the strongest terms. So, one would have to be a Pollyanna to rule out the possibility of a military confrontation between the U.S. and U.S.S.R.

But as events proceed—either in the direction of peace or war—we can only hope they are treated with a meticulous taste for accuracy and a less than choleric state of mind.

### Water Harvesting = Fewer Berries

A major reason for the scarcity of fresh cranberries is the growth in water harvesting and the decline in dry harvesting, notes George Andruk, general superintendent of United Cranberry Growers Associates Inc. of Hanson, Mass.

Water harvested berries are not as suitable for sale as fresh berries as are dry harvested berries, he explained.

## CRANBERRIES

THE NATIONAL CRANBERRY  
MAGAZINE

—Our 44th Year of Publication—

VOLUME 44—No. 3  
March 1980

Send correspondence to:

P.O. Box 249  
Cobalt CT 06414

Phone: (203) 342-4730

Bob Taylor, Publisher/Editor

### ADVISORS, CORRESPONDENTS

Massachusetts—Dr. Chester E. Cross, Director, Massachusetts Cranberry Experiment Station; Irving Demoranville, extension Cranberry specialist, Massachusetts Cranberry Station; Michael Couture, East Wareham, Mass.

New Jersey—Philip E. Marucci, cranberry and blueberry specialist, Cranberry and Blueberry Laboratory, Chatsworth, N.J.; Mary E. Archibald, Collingswood, N.J.

Nova Scotia—I.V. Hall, botanist, Research Station, Kentville, N.S.

Oregon—Arthur Poole, Coos County Extension Agent, Coquille, Ore.

Washington—Azmi Y. Shawa, extension agent in horticulture, Coastal Washington Research and Extension Unit, Long Beach, Wash.

Wisconsin—Vernon Goldsworthy, Eagle River, Wisc.; Tod D. Planer, Farm Management Agent, Wood County, Wisc.; Joan E. Humphrey, Friendship, Wisc.

CRANBERRIES is published monthly by the Taylor Publishing Co., Wellwyn Drive, Portland CT 06480. Second class postage is paid at the Portland, Conn., Post Office. Price is \$5 a year, 75 cents a copy in U.S.; Canada, \$6 a year; all other countries, \$8 a year. Copyright 1980 by Taylor Publishing.

ISSN: 0011-0787

# George Olsson speaks out on government regulation

**Editor's Note:** George C. P. Olsson served Ocean Spray Cranberries Inc. for 19 years, as director, president and chairman of the board. A lawyer, Olsson also has been clerk of courts in Plymouth County, Massachusetts, and director of the First District Farm Credit Bank, the National Cannery Assn. and the National Council of Farmer Cooperatives. A 1926 graduate of Boston University Law School, he was elected delegate to the Republican national conventions in 1936 and 1940, and he has written numerous articles on the organization of the Massachusetts courts and the jury system. The article below first appeared in *The Brief*, publication of the Boston University School of Law.

"I doubt that many people understand the power of the government today, nor are they aware of the fact that regulations are now usurping the role of legislation. It's a startling and troublesome situation, but when regulatory agencies begin making the rules, businesses must learn how to deal with them."

So says George Olsson, honorary chairman, past president and chairman of the board of Ocean Spray Cranberries Inc., a farmers' cooperative with offices throughout the United States and Canada. He is a man who speaks from experience.

It was in the late 1950's when Ocean Spray, a major processor and distributor of cranberries

## COVER PHOTO

GEORGE C.P. Olsson talks about the great cranberry scare, among other subjects related to the government and business.

(Plymouth Plantation Photo)

and cranberry products, was hard hit by a government announcement: former HEW Director Arthur Flemming ruled against utilization of a certain pesticide that had been used by some of Ocean Spray's growers. A public statement was issued regarding the alleged toxic effects of the pesticide and all cranberry products disappeared from grocery shelves across the nation. Ocean Spray's business came to an abrupt standstill. Olsson, who was then president of the company, described the situation more candidly: "The announcement nearly put us out of business." But because of his legal background and experience in politics, Olsson felt that he knew what had to be done. He went straight to Washington.

Olsson's personal talks with congressmen, senators, members of the Department of Agriculture and the executive branch proved to be a vital factor in bringing the problem to resolution. "In our opinion none of our food products were contaminated," said Olsson, "but we were forced to remove and test them all anyway. Eventually, we were able to persuade former President Eisenhower to sign an executive order

granting an indemnity of \$10 million to the cranberry grower who had never used the pesticide but who nevertheless suffered tremendous losses as the result of the precipitous action of HEW.

Ocean Spray growers no longer use the pesticide, which is still used by farmers in the British Isles and although the company is in excellent condition today, the cranberry crisis took its toll: it took four to five years before Ocean Spray worked its way back to normal conditions.

If there is a lesson to be learned from this story, it is not that government regulation is necessarily bad for business—Olsson openly supports the intentions of such regulatory agencies as OSHA, EPA, and others—but that overregulation can create tremendous problems for organizations that must cope sometimes with little warning, new ways of operating. For the purpose of *The Brief*, Olsson outlined several ways in which attorneys can play a special role in helping business come to grips with the present day realities of escalating governmental regulations:

1. Know the legislative history of a particular law. Understand who said what when a law was under consideration for enactment. It can be of enormous benefit in interpreting that law, and lawyers because of their special training are best equipped for this.

2. Know when to take a stand. Lawyers can help business evaluate their position vis-a-vis regulatory agencies and they can help businesses articulate their position to regulatory agencies. If a regula-

ency threatens action, don't  
ply back down. Go to  
Washington. Find out the reason  
for the action and explain the  
company's position before final  
action is taken.

3. Know your Legislature,  
because that is where critical  
decisions are made. Law schools  
should make it a point to  
provide off-campus studies on  
legislative proceedings, and lawyers  
who work for, or represent,  
business should make it a point  
to know not only what is going  
on, but the reasoning behind the  
legislative activities. A company  
must make its position known  
before new regulations are  
passed.

4. Know when to seek outside  
counsel. Lawyers are expected  
to have all the answers, but of  
course they don't. Have a good  
knowledge of the bar in your  
company's area of specialization  
and seek experienced, specialized

counsel when it is necessary to  
do so.

5. Be ready to mount a  
campaign to prevent the passage  
of laws that are prejudicial to  
your company or business interests  
in general. This will be difficult  
if a legislator is convinced that  
the business interests you represent  
run counter to the "voice of the  
people." Yet, most new regulations  
do little more than create new  
layers of governmental bureaucracy.  
"It is time for business to take a  
stand in pointing this out clearly  
and effectively," he said. "New  
regulations usually add to the  
cost of the end product, and  
this additional cost is ultimately  
borne by the consumer. In this  
age of double-digit inflation,  
these facts cannot be stressed  
too often."

.....

("By permission, Trustees of  
Boston University, 1979.")



**Muriel Stefani**  
Representative



**Martin B. Person, Jr.**  
President

### STOCK QUOTATIONS

"Industry is a better horse to ride than genius."

—Walter Lippmann



### GAGE WILEY & CO., INC

40 Court St., Plymouth, Massachusetts 746-3322  
Massachusetts Toll-free IN WATS 1-800-242-0263

*New England Stock Broker.  
For Over 45 Years*

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

# Berries wanted! NOW!!

We need more high  
quality Massachusetts  
grown cranberries.

We offer top prices,  
high incentives, prompt  
payment, no retains. No  
long waiting at delivery.  
Better test room results.  
Water and Dry Harvested  
accepted. Short or long  
term contracts available.  
No shrinkage. No  
screening charges.

Come in and join  
our satisfied Growers.

## United Cranberry Growers Associates Inc.

HAWKS AVENUE,  
HANSON, MASS.  
02341  
293-3739  
or  
293-3720

★ ★ ★ ★ ★ ★ ★ ★ ★ ★



# Evital<sup>®</sup> controls nutgrass and cutgrass. And 14 more troublesome weeds in cranberries.

Evital doesn't fall short in effective weed control. It stops 16 profit-robbing weeds, including tough ones like smoke grass, spike rush, and barnyard grass.

- **evital** stops tough weeds in cranberries better than any other granular herbicide.
- **evital** is a sand-core granule making it an outstanding aerial formulation; easy ground application as well.
- **evital** is the No. 1 choice to apply over newly-sanded bogs to prevent weed emergence.

It's the broad spectrum weed-control herbicide that cranberry growers depend on year after year.

(Use herbicides effectively. Read and follow label directions carefully.)

  
**evital<sup>®</sup>**  
GRANULAR HERBICIDE FOR CRANBERRIES



Sandoz, Inc. Crop Protection/480 Camino Del Rio South/San Diego, CA 92108

Copyright, 1980, Sandoz, Inc.



## **Sorensen new president**

# **Wisconsin growers get fresh reports**

By **JOAN E. HUMPHREY**

More than 100 attended the recent day long program of the Wisconsin State Cranberry Growers Assn. at Mead Inn, Wisconsin Rapids.

LeRoy Jaglar, meteorologist with the U.S. Weather Service, Milwaukee, talked about a frost warning program available daily during the growing season. He outlined plans to expand the program to give growers better service—especially with respect to two small gaps, one near the center of the state, the other in the north-west corner. He also advised growers of the importance of investing in a good weather band scanner.

Cindy Tienor of the marketing division of the Wisconsin Department of Agriculture discussed the state cranberry marketing program, with emphasis on cranberries as a year around product. Fresh cranberries were in limited supply this season, she said.

George Klingbeil, retired University of Wisconsin horticulturist, urged growers to attend Wisconsin Wetlands meetings and hearings and to subscribe to their publications to keep a finger on the new organization's concerns with cranberry growers' interests.

Dr. Malcolm N. Dana, UW-Madison, gave an update on continuing research in fruit color, development, plant pathology, seedling propagation, weed control, insect control and genetic and cytogenetic studies. Possible new programs during 1980 could include research into nutrients and agricultural engineering, he said. State cranberry growers contribute 3 cents a barrel to help fund the research projects.

Leo Sorensen, Wisconsin Rapids, was elected president of the Wisconsin Cranberry Growers. Other new officers elected were: Fredric Bratling, Manitowish Waters, vice president, and Betty Landgraf, Hayward, reelected secretary-treasurer.

Directors for 1980 are Mrs. Virginia Brazeau, Newell Jaspersen and Wayne Duckart, all of Wisconsin Rapids.

Chairmen of the day were Tod Planer, UW Extension, Wood County, and Dr. Elden Stang, UW Extension, Madison.

The meeting also included a report on the 1979 Warrens Cranberry Festival in Monroe County.

## **CIDER PRESS TAX FREE**

Thinking of buying a cider press. In Massachusetts, at least, it'll be exempt from the state's sales tax.



## **Straight talk about a farmer-owned credit organization**



Production Credit Association has one dominant purpose: to improve the income and well-being of farmers and ranchers.

We are a farmer-owned, cooperative-type credit association. Our margins cover operating expenses, build facilities and provide required reserves.

That's it: no middleman's profits; no money leaving the community. But great strength and capacity through the ability of the Farm Credit Banks to furnish loan funds. And great commitment, with farmer-directors, and people who work here because the idea of building agriculture is important to them.

We've grown steadily because we've served farmers and agriculture well. We'll do a good job for you.

**Production Credit Associations of Wisconsin**

# *Cranberry world is depicted in quilt*



**MRS. ALICE NEMITZ of Warrens, Wisc., poses with her immense quilt depicting the world of cranberrying.  
(CRANBERRIES Photo by Joan E. Humphrey)**

## **By JOAN E. HUMPHREY**

When Alice Nemitz of Warrens, Wisc., heard there was a national cranberry quilt block contest going on, she wasn't going to stop with one block.

She became inspired to create an entire quilt devoted to the world of cranberry growing.

Her handiwork resulted in an outstanding exhibit at the seventh annual Cranberry Festival in Warrens.

"I thought, What a nice idea," Mrs. Nemitz said. "I could make

a quilt like that and I started to mentally plan the blocks which could be part of my quilt.

"I began gathering all the information I had on cranberries, read a lot and consulted with my husband for ideas."

**MRS. NEMITZ**, who was raised in a cranberry growing family, had a lot of research to draw on.

After several months of planning, her ideas were drawn on 15-inch blocks of white percale.

"I started gathering my material together in August and, making about one block a week, I finished it in mid-winter," she told **CRANBERRIES**.

"I did most of the needle work in the evenings while watching television. Originally, it was going to be 20 blocks but then I increased it to 24 blocks. It made a very ample 80 by 108 inch quilt."

The white blocks have been embroidered in solid stitch work and are joined together by 2 inch red strips, with a red border and backing. It was hand quilted by Sylvia Younker, also of Warrens, who quilts professionally.

The blocks tell the history of cranberries, beginning with the states where they are grown and the Indians introducing cranberries, a native

(continued on page 18)

Nutgrass



Rice cutgrass



# Control nutgrass and cutgrass without harming your vines. Use Devrinol.<sup>®</sup>

Selective Herbicide

**Massachusetts cranberry growers**, you can control both nutgrass and rice cutgrass without harming your vines.

Use Devrinol<sup>®</sup> herbicide. Devrinol gives excellent control of these tough weeds with good crop tolerance.

Apply Devrinol 10-G in the spring, before weeds begin to grow. Or, you can apply Devrinol in the fall, after harvest.

Control nutgrass and cutgrass without harming your vines. See your Stauffer supplier for Devrinol. For use in Massachusetts only. Always follow label directions carefully. Stauffer Chemical Company, Agricultural Chemical Division, Westport, Connecticut 06880.



# Devrinol<sup>®</sup>

## GROWTH INHIBITOR . . .

(continued from page 3)

homogenate was then filtered twice through glass wool (or cheesecloth) and Whatman No. 1 filter paper without suction.

The acetone was evaporated off in a flash evaporator at 45 degrees C and the remaining fraction filtered twice through cheesecloth and Whatman No. 1 filter paper.

After adjusting the pH to 2 with concentrated sulfuric acid, the crude extract (about 250 ml) was then transferred to a 1000 ml separatory funnel and extracted twice for one min with 200 ml portions of ethyl acetate.

The combined extracts were then transferred to another 1000 ml separatory funnel and extracted twice for one min with equal portions of a 5 percent sodium bicarbonate solution. The organic phases were discarded. The combined aqueous phases were acidified to pH 2 with concentrated sulfuric acid and extracted twice for one min with equal portions of ethyl acetate.

The combined organic layers were transferred to a flash evaporator and the solvent evaporated at 45 degrees C. The dry residue is redissolved in 20 ml of water and stored at 4 degrees C.

The above procedure was repeated several times until enough extract was accumulated to accommodate the experiments planned.

During storage, a yellow precipitate appeared. The precipitate was removed by centrifugation at 10 degrees C and 2000 g for 10 min.

The clear brown supernatant was tested for growth regulator properties.

**WHEAT** (*Triticum aestivum* L.) seeds were sown in 5 cm diameter paper Dixie Cups (25 seeds per

cup) that contained moist vermiculite and then covered with a 1 cm layer of moist vermiculite. The covering layer was gently pressed down and leveled. The bottom of the cup was punctured several times to allow for good drainage.

Leaf extract was applied in water to the pressed vermiculite surface, using a small bulb atomizer. In each treatment 10 ml of liquid was applied to each cup.

There was a total of four treatments: (a) 10 ml H<sub>2</sub>O, (b) 9 ml H<sub>2</sub>O plus 1 ml extract, (c) 5 ml H<sub>2</sub>O plus 5 ml extract, and (d) 10 ml extract. The bottom half of a petri dish was placed under each cup to collect any excess drainage.

Each treatment was replicated four times. The treated seeds were then transferred to an incubator and kept in the dark for three days at 25 degrees C. During this time the germinating seeds were loosely covered with a sheet of plastic to keep humidity high.

After three days the germinating seeds were transferred to a growth chamber (Conviron Model E-7) where constant conditions of light (white, 10.8 klux, 20 hr light and 4 hr dark) and temperature (25±1 degree C) were maintained. While in the growth chamber, the plants were watered daily (when needed) by pouring water into the containing petri dish half.

After seven days of growth (three in the incubator and four in the growth chamber), the 10 longest seedlings from each cup were collected and their average shoot and root lengths determined. With this method of selection treatment, effects—if they exist—are more visible.

The number of seeds that actually germinated was also determined. Since treatments were replicated four times, each

data point in length measurement represents the mean of 40 plants.

## RESULTS AND DISCUSSION

Significant decrease in germination was not observed in those seeds treated with 1 ml of extract. However, when 5 ml of extract was applied, there was a 42 percent decrease in germination and with 10 ml a 70 percent decrease (Table 1).

In addition to inhibiting germination, growth of those seeds that did germinate was severely retarded (Figure 1). When 1 ml of extract was applied, there was a 13 percent decrease in root length and a 14 percent decrease in shoot length (Table 1). Dramatic growth retardation was apparent when applications of extract were increased to 5 and 10 ml.

Treatment of seeds with 5 ml of extract caused a 77 percent decrease in root length and an 83 percent decrease in shoot length (Table 1). An 88 percent decrease in root length and a 93 percent decrease in shoot length was observed in those seedlings treated with 10 ml of leaf extract (Table 1).

**THE DRAMATIC INHIBITION** of wheat seed germination and growth by cranberry leaf extract certainly suggests the presence of a plant growth inhibitor. It also suggests that the inhibitor may be one of the reasons—perhaps the most important reason—why the accumulation of trash on a bog retards vine growth and reduces yield.

We have partially isolated the inhibitor and work is now in progress toward its final isolation and characterization.

## POLITICAL GIFTS NOW A TAX CREDIT

Political contributions made in 1979 may qualify as a tax credit but can no longer be taken as a tax deduction, says the IRS.

Table 1. Effect of cranberry leaf extract on the germination, root length, and shoot length of wheat.

Extract (ml)	No. of Seeds Germinated	Shoot (mm)	Root (mm)
0	25.0	102.1	66.4
1	24.0	87.4	57.5
5	14.3	17.2	15.2
10	7.5	7.5	7.6

## weather watch

### MASSACHUSETTS

January temperatures averaged exactly one degree a day below normal. Maximum temperature was 54 degrees on the 11th and minimum was 8 degrees on the 7th and 31st. Warmer than average days were the 7th, 11th, 2th, 14th and 15th. Cooler than average periods were from the 4-6th, 10th, 13th, 24-26th and 29-31st.

Precipitation totaled 2.18 inches or about 2 1/8 inches below normal. This was the least January precipitation here since 1970. There were measurable amounts on eight days, but 1.13 inches, or about 1/2 of the monthly total came on the 12th. Total snowfall for the month was only 1 inch, the least since 1969. Significant snowfall in January is not unusual for us, with 1 inch or less occurring an average of one in eight years.

I.E.D.

### NOVA SCOTIA

To date we have had just enough snow for cross-country skiing. The mean temperature for the month of January was -5.2 Celsius compared with

the 50 year average of -5.8. Total precipitation was only 48.9 mm and consequently sunshine was up slightly at 89.1 hours.

The weather at Kentville for December at -2.3 Celsius was slightly above the 50 year average of -3.1. Sunshine was 60.3 hours, also slightly better than the 50 year average of 56.

Looking back over last year's records, I note that we had a total precipitation of 1579 mm of rain and snow in 1979, which was far above the 60 year mean of 1080. Massachusetts' workers say that heavy rainfall a year in advance of the crop is not good. A factor in favor of next year's crop is the fact that we have had a very light snow cover and oxygen

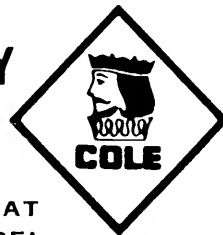
deficiency should not be a problem.  
I.V.H.

### WASHINGTON

December 4 gave a high of 59 degrees and 25 days registered 50 degrees or over. A low of 31 degrees came on the 11th, 23rd and 27th. The precipitation total of 18.08 inches was almost 3 1/2 inches above the average. The year's total of 79.28 inches fell short of the average of 83.70 by 4.42 inches. Mild conditions prevailed, with two heavy storms bringing 2.12 inches of precipitation on the 17th and 3.51 inches on the 18th.

January 1980 will go down in the records for a record low for the month of January—8 degrees on the

## WISCONSIN CRANBERRY HEADQUARTERS FOR



EVITAL • SOLO • DIQUAT  
2-4-D • DOWPON • ETHREL  
SEVIN • PARATHION • GUTHION • DIAZINON  
KOCIDE • DIFOLITAN • FERBAM  
COPPER SULFATE • PRINCEP

## Cole Chemical Supply

DIVISION OF *Hopkins* AGRICULTURAL CHEMICAL CO.  
P.O. BOX 7211, MADISON, WISCONSIN 53707  
608-221-1581

29th and 30th with 6 and 7 degrees respectively in the bog. The high was 58 degrees on the 23rd. Precipitation total for January was 7.90 inches, with the greatest storm of 2.24 inches on the 16th.

A.Y.S.

## WISCONSIN

For the first time since 1975, temperatures in Wisconsin during January averaged above normal. High temperatures were mostly in the 30's or 40's from the 10th through the 22nd. Readings since then have averaged below normal but there have been no severe cold periods comparable to the previous three winters.

Snowfall in January was above normal in the west and north but below normal in the east and south. Snow depths as of Feb. 8 averaged about 7 inches in Wisconsin. This was 4 inches below the average for that date from 1961-79. The relatively light snow cover in much of the state this winter has resulted in deep frost penetration.

Frost depths as of Feb. 8 averaged 24 inches compared with a normal of 18 inches for that date. The frost is very hard because most

soils have a high moisture content. A year ago, snow depths averaged 26 inches and frost depths averaged only 7½ inches.

Wisconsin Agriculture  
Reporting Service

# regional news notes

## Massachusetts

By IRVING DEMORANVILLE

Growers are reminded that bogs should be checked this month for control of algae or green scum around the shore ditches. If present, it should be treated with copper sulfate as recommended in the 1979 weed chart.

\*\*\*\*

Dr. Robert Devlin attended the recent annual meeting of the Northeastern Weed Science Society at Grossinger's in New York State. Bob presented two papers on herbicides

and growth regulators.

Dr. Devlin also was invited speaker on growth regulators at a meeting of Stauffer Chemical Co. representatives and scientists in San Francisco.

\*\*\*\*

Prof. Stan Norton attended the annual meeting of the Technical Committee of NE-93 in Byron, Ga., recently. This is the Northeastern Regional Project on Mechanical Harvesting of Fruits and Vegetables. Stan is Massachusetts' representative secretary and senior executive committee member.

\*\*\*\*

Dr. Charles Brodel attended the recent New England Small Fruit Conference in Concord, N.H.

## STAY INFORMED

subscribe to CRANBERRIES

\$5 a year; \$9 two years

Send check or money order to

CRANBERRIES

P.O. Box 249

COBALT CT 06414

A MOST COMPLETE INVENTORY OF  
IRRIGATION ACCESSORIES



# LARCHMONT

ENGINEERING & IRRIGATION, INC.

P.O. Box 66, 11 Larchmont Lane, Lexington, MA 02173 (617) 862-2550

IRRIGATION EQUIPMENT DESIGNED ESPECIALLY  
FOR THE CRANBERRY INDUSTRY

FOR EXAMPLE:

*Gorman-Rupp Self Priming Electric Sprinkler Pumps*  
*Proven Quick Couple Riser*  
*Ingersoll-Rand Water Harvest Pumps*  
*Aluminum Insert Coupling For 4" Poly Pipe*

Contact:

Larchmont Engineering  
Phil Tropeano, President  
(617) 862-2550 (Call Collect)



Contact:

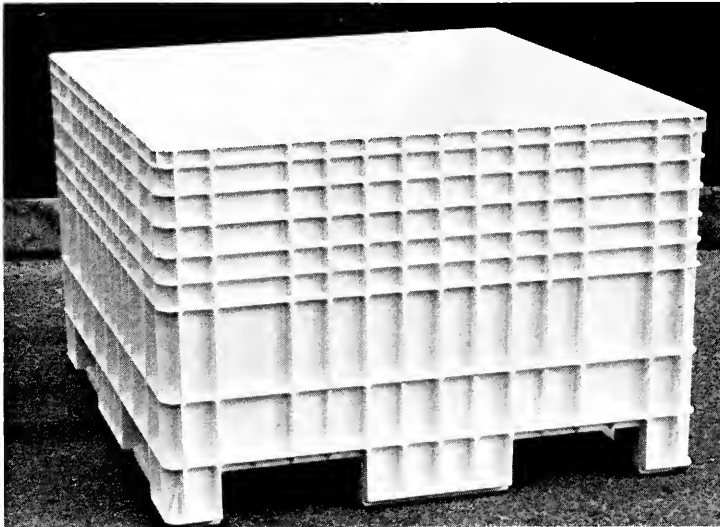
Bill Stearns, Plymouth, Mass.  
(617) 746-6048  
(617) 746-2610



# **COLOSSUS II**

## **(Pallet Bin)**

***The Choice of Growers and Processors Everywhere***



NEVER! HAS A PALLET BIN ANSWERED THE DEMANDS OF GROWERS AND PROCESSORS. NOT UNTIL THE ULTRA-MODERN, SCIENTIFICALLY DEVELOPED, INCREDIBLY UNIQUE COLOSSUS II, THAT IS.

NOW! BECAUSE OF COLOSSUS II (INJECTION MOLDED POLYETHYLENE STRUCTURAL FOAM), THERE'S A PALLET BIN THAT'S LIGHTWEIGHT, RESILIENT, RESISTANT TO IMPACTS, EASY TO CLEAN AND LESS EXPENSIVE THAN WOOD TO MAINTAIN. FURTHERMORE, IT WILL NOT SPLINTER; HAS A SMOOTH INNER SURFACE; STACKS AND DUMPS EASILY; WITHSTANDS TEMPERATURE VARIATIONS; AND RESISTS STAINS FROM CAUSTIC SOLUTIONS.

SHOULDN'T YOU CHECK COLOSSUS?

**General**  
★ ★ ★ ★ ★

**GENERAL BOX COMPANY**

5451 ENTERPRISE BLVD. • TOLEDO, OHIO 43612

PHONE (419) 729-3921

# Lake conflict to be put to study

The issue of whether cranberry farming negatively affects the water quality and quantity of Thunder Lake in northern Wisconsin will be put to a year long study.

The study decision was made by the state Department of Natural Resources and plans for the study will be drawn up by a DNR expert on cranberry agriculture.

A year long study is slated because the impact of the entire growing season will have to be assessed, according to Dale Lang, DNR water management coordinator.

The issue stems from complaints by property owners around the lake that Cranberry Products Inc., Eagle River, is lowering water levels and dumping fertilizers and pesticides into the body of water.

Charles Goldsworthy and Ralph Sampson, president and treasurer respectively of the company, deny both charges, saying that water used for the flooding of marshes is returned

to the lake and that the materials used in cranberry cultivation are absorbed or filtered out before the water goes back.

Goldsworthy also claims that Thunder Lake is not dying of pollution or diversion but of old age. He said any water study should also determine whether homes and resorts on the lake are discharging septic wastes into the water.



## CRANBERRY FRUIT RELISH

1 pound (4 cups) fresh cranberries  
1 navel orange

1 firm apple or pear  
½ cup dates  
1-½ cups sugar

Pick over cranberries, then coarsely chop or put them through meat grinder or food processor with quartered orange (unpeeled), quartered and cored apple or pear, dates. Sweeten to taste. Makes about 4 cups. Keeps well refrigerated.

# DIRECTORY for Cranberry Growers

## The CHARLES W. HARRIS Company

451 Old Somerset Avenue  
North Dighton, Mass.  
Phone 824-5607

**AMES**  
*Irrigation Systems*  
**RAIN BIRD**  
*Sprinklers*  
**HALE**  
*Pumps*

Highest Quality Products  
with Satisfaction Guaranteed

Office  
295-2222

## BEATON'S CRANBERRY GROWERS SERVICE

K. Beaton  
295-2207

D. Beaton  
888-1288

**WAREHAM, MASS.**

P. Beaton  
947-3601

Specializing in

- DITCHING
- SANDING
- COMPLETE BOG MANAGEMENT
- NETTING
- WEED CLIPPING
- HARVESTING (Wet and Dry)

Also

Complete line of portable Crisafulli Pumps 2" - 16"  
Plastic netting for suction boxes

## Farm Credit Service

Box 7, Taunton, Mass. 02781  
Tel. 617-824-7578

•  
PRODUCTION CREDIT LOANS  
LAND BANK MORTGAGES

Office - on Route 44  
1/4 Mile West of Rt. 24



# Fungicides tested for twig blight control

By **ARTHUR POOLE**  
Coos County (Ore.) Ext. Agent

Five fungicides registered for control of various cranberry diseases were compared for the control of twig blight (*Lophodermium hypophyllum* and *oxycocci*) during the summer of 1978 in a severely infected commercial bog at the Ray Copper Farm near Bandon.

The research was planned and conducted by Bernard Moore, supervisor of the OSU Plant Clinic, and Arthur Poole, Coos County Extension Agent. Analysis of the results was done by Dr. Peter Bristow, research plant pathologist, Western Washington Research and Extension Center,

Washington State University.

Six treatments consisting of water (the check) and five fungicides were each repeated four times in a randomized complete block experimental design. Each plot was 25 square feet (5 X 5) in size.

Fungicides were applied

with a 3 gal. hand pump garden sprayer in a volume of water equal to 300 gallons per acre. The spreader-sticker Nufilm was used at 1 fl oz/A with all fungicides.

Applications were made on June 27, July 15, August 1,

(continued on page 19)

## MASSACHUSETTS GROWERS

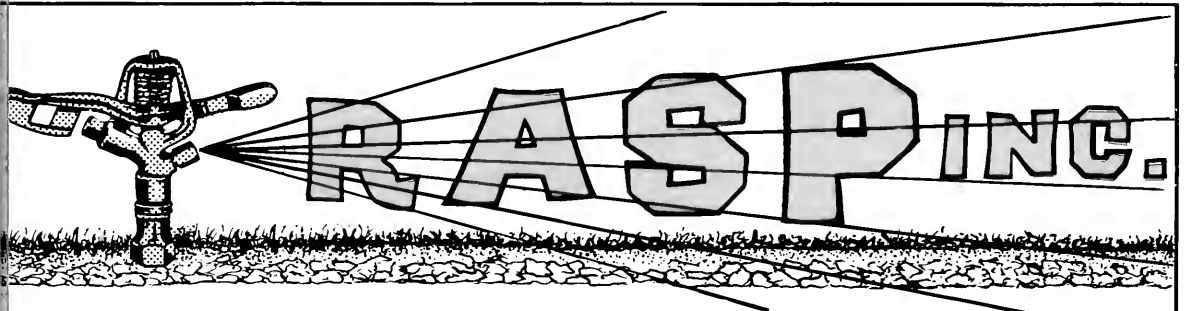
Financial assistance is available for Scholarships and for Hospital and Medical care for Cranberry Growers, their Employees and the families of both when financial need can be shown. For information contact:

**URANN FOUNDATION**

P.O. Box 1788

Brockton MA 02403

Telephone 588-7744



**AUTHORIZED AGWAY REPRESENTATIVE**

**LICENSED SPRAYING OF PESTICIDES (Seasonal)**

**WITH A COMPLETE LINE OF:**

**CRANBERRY INSECTICIDES • FUNGICIDES  
HERBICIDES • MITICIDES • and FERTILIZERS  
IN STOCK!**

**ROBERT A. ALBERGHINI — SPRAYING**  
RFD 5 PLYMOUTH STREET, CARVER, MASS. 02330  
TELEPHONE: 866-4429

For further information, call evenings after 5:30

**Bugs**

**AGWAY**

**AGWAY**

## QUILT . . .

(continued from page 10)

fruit, to the Pilgrims. They show the first marshes carved out of the woodlands and, in a section on planting, even depicts the Nemitz marshes.

Blocks also show stages of cranberries, such as dormant, hook, blossom and berry, continuing on to frost protection, weed problems, pests and ways of harvesting through the years.

Mrs. Nemitz also includes the steps of flotation, raking, drying, storing, bagging and packaging the fruit, as well as all the major equipment used on the marshes through the years.

ONE BLOCK depicts the major associations, such as Ocean Spray, Indian Trail, Wisconsin Cranberry Growers and Cranberry Products, with the logo of each.

The Warrens resident has included her father, Charles Wallworth, who was in cranberry growing for more than 50 years. Jean Case, who started the Cranberry Festival, Rita Hounn, the first cranberry queen, Jane Schoeder and Trudy Johnson, first princesses, and Donna Caldwell and Carolyn Habelman, Cran-Fest committee members since the festival was started in 1973, are all included in Mrs. Nemitz's history quilt of cranberry growing.

"I copied pictures from the newspapers and photographs to get the likenesses of people," the meticulous Mrs. Nemitz said.

She has tried to capture, in needle work, every mood and detail of the cranberry world. Such minute details as ducks flying over the marshes, muskrats swimming, beavers damming

spillways, deer browsing and bees working the flowers complete the realistic story of cranberrying.

The quilt was displayed at various stores and businesses in the area following the festival.

## MASSACHUSETTS FBF A WINNER

Competing against other state

Farm Bureaus of comparable size, the Massachusetts Farm Bureau Federation won first place for performance in marketing, membership, policy development and information at the recent AFBF convention in Phoenix.

Charles Dowse of Sherborn, MFBF president, received the four star plaque.

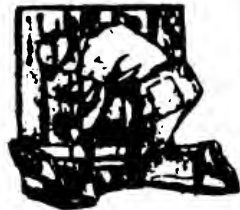
# Niemi Electric Co.

ROBERT NIEMI

## ELECTRICAL CONTRACTORS

### HEAT, LIGHT and POWER WIRING

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL



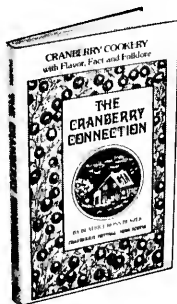
TEL. 295-1880

Robert Niemi Pinchurst Dr. Warcham, Mass.

### The scoop of the year!

*Cranberry Flavor, Fact and Folklore in*

**THE CRANBERRY CONNECTION**, by Beatrice Buszek. Your favorite berry pops up in kitchen-tested recipes for every delight from Cranberry Bog to Cranberry-Banana Bread, Cranberry Avocado Dip, and countless other desserts, drinks, salads, entrees. "A fascinating revelation of the many uses for cranberries . . . you'll find this book a treasure."—*Des Moines Register*. Paperback, \$7.95.



Please send \_\_\_\_\_ copies of **THE CRANBERRY CONNECTION**, \$7.95 each.

Name \_\_\_\_\_

Address \_\_\_\_\_

Zip \_\_\_\_\_

Add \$1.00 for postage; Conn. residents add 7% sales tax.

**CRANBERRIES MAGAZINE**  
P. O. Box 249, Cobalt, CT 06414

## CORRUGATED CULVERT PIPE

and

## FLOW GATES

Aluminum - Galvanized  
Asphalt Coated

# Felker Bros. Corp.

MARSHFIELD WISCONSIN

Area 715 384-3121

Treatment and rate/A	% uprights infected			Ratio of fruit to vegetative buds
	Uprights with fruit buds	uprights with vegetative buds	All uprights	
Water (check) . . . . .	29.0 a	13.9 a	18.3 a	1:3.4 a
Captan 50 WP 6.0 lb . . . . .	9.7 b	1.8 b	3.8 b	1:3.7 a
Bifolatan 4F 4 qt . . . . .	3.4 b	0.9 b	2.6 b	1:2.7 a
Methidathion M-45 (mancozeb) 80 WP 4.0 lb . . . . .	2.3 b	1.7 b	1.6 b	1:3.4 a
Methidathion Z-78 (zineb) 75 WP 4.0 lb . . . . .	3.3 b	0.3 b	1.3 b	1:4.3 a
Permethrin 76 WP 4.0 lb . . . . .	1.8 b	1.1 b	1.4 b	1:3.0 a

## FUNGICIDES . . .

(continued from page 17)

August 15 and September 1, 1978. Dead twigs (uprights) were first noticed in early April 1979. In May 1979 every upright from a 12 X 12 inch (48 sq. inch) area in the center of each plot was cut from the vines with hand pruners. Uprights from each plot were

then divided into two groups: those with fruit buds; b. those with vegetative buds. The percent of uprights infected was determined for each group.

**ALL FIVE FUNGICIDES** significantly reduced twig blight. Apparently, the strict spray schedule that assured coverage throughout the summer masked any difference in performance between the materials tested.

Cranberry buds begin development for the following year in August. None of the fungicides altered the ratio of fruit to vegetative buds. And no evidence of phytotoxicity was observed.

With respect to the table, the means followed by the same letter are not significantly different at the 5 percent level, according to Duncan's multiple range test.

This statistical test indicates that repetitions of this experiment will produce a series of different

means, but 95 percent of the time the results will be the same. Stated another way, the probability is 5 percent or less that the observed results could occur by chance alone.

## Beekeepers hit spraying

The Massachusetts Federation of Beekeepers Associations has petitioned the EPA and FAA, asking that pesticide applicators forfeit their licenses if they haven't obtained waivers from persons owning land within 1,000 feet of an area sprayed by aircraft or 250 feet of an area sprayed by a land vehicle.

The beekeepers allege that government is bowing to "big industry" to the detriment of the general public.

Dr. Chester Cross, director of the Massachusetts Cranberry Experiment Station, reminded the beekeepers

federation in a recent letter that pesticides are carefully analyzed before registration and that stringent regulations govern their use.

He called the proposed restrictions impractical.

## CRANBERRY GROWERS REALTY

Listings of buyers and sellers welcomed on cranberry acreage and upland.

Appraisals

**DOUGLAS R. BEATON**

**E. Sandwich, Mass.  
02537**

**(617) 888-1288**

## BARK RIVER Culvert and Equipment Co.

(Wisconsin-Michigan Growers)

**ALUMINUM HEADGATES FABRICATED TO YOUR SPECIFICATIONS**

**HAND WHEEL OPERATED GATES**

**ALUMINUM CORRUGATED PIPE**

**INTERNATIONAL POWER UNITS**

**INTERNATIONAL CRAWLER TRACTORS**

**WARNER & SWASEY EXCAVATORS**

**WALDON LOADERS AND USED EQUIPMENT**

Eau Claire, Wis.  
715-835-5157

Escanaba, Mich.  
906-786-6920

Milwaukee, Wis.  
414-461-5440

Madison, Wis.  
608-222-4151

Green Bay, Wis.  
414-435-6676

Ironwood, Mich.  
906-932-0222



**INTERNATIONAL CONSTRUCTION EQUIPMENT**

INTERNATIONAL HARVESTER COMPANY

# IN EVERY INDUSTRY THERE IS A NAME FOR QUALITY



OCEAN SPRAY CRANBERRIES, INC., PLYMOUTH, MASS. 02360

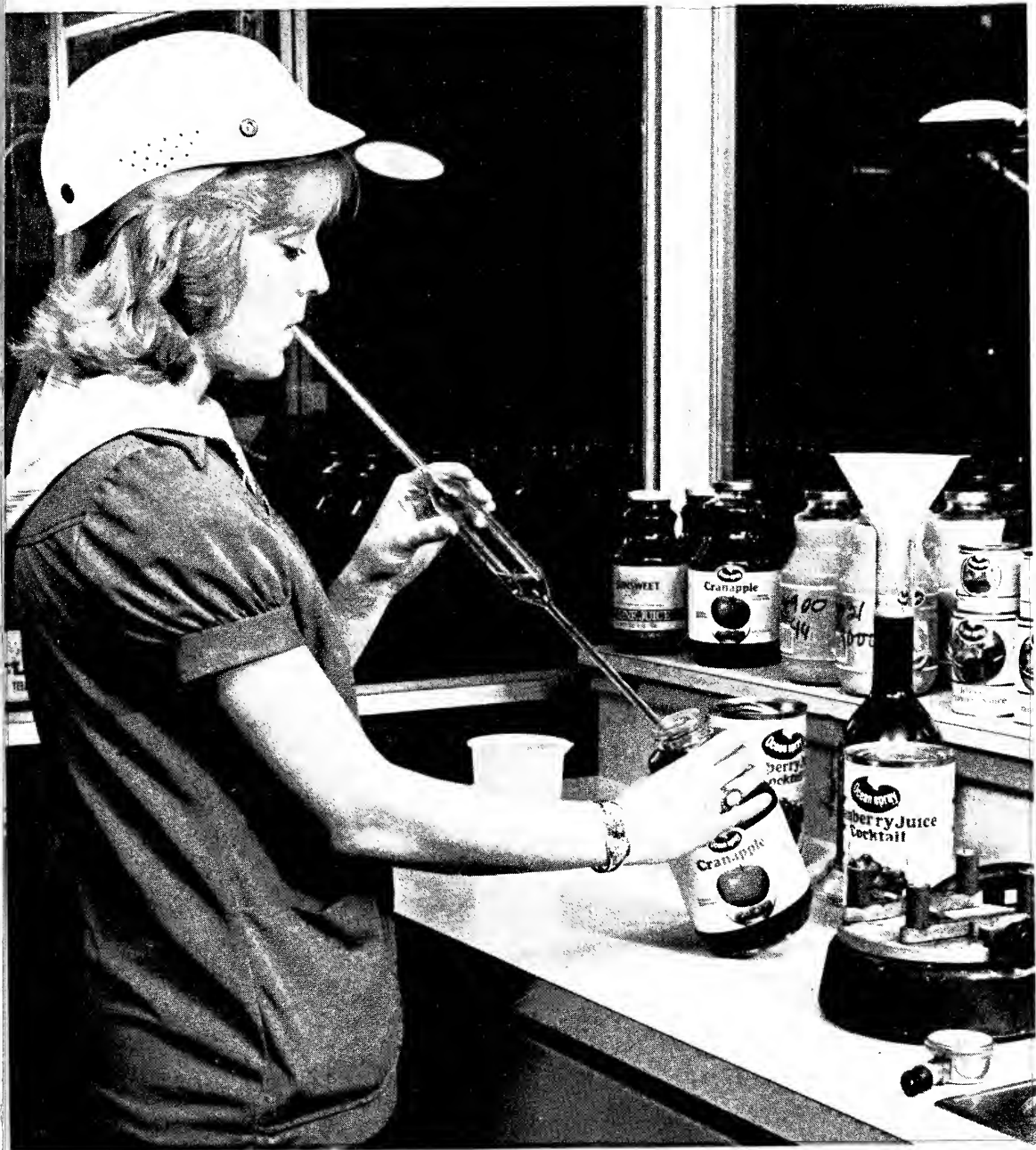
AN EQUAL OPPORTUNITY EMPLOYER

# CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

Vol. 44, No. 4

April 1980



**Vandals a problem . . .2**

★★★★★

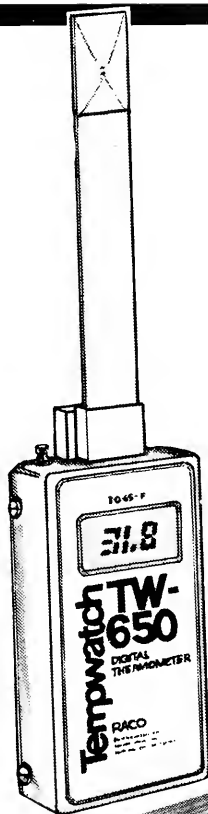
**80 crop forecast . . .6**

Library UMass  
Serials Section  
Amherst MA 01002

# Life Insurance for Crops

BY RACO

## Tempwatch



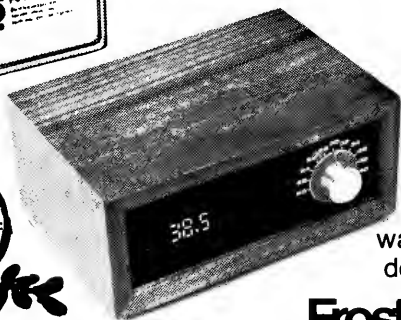
**FOR EARLY WARNING OF CRITICAL TEMPERATURE PROBLEMS**

Tempwatch puts an end to temperature guesswork. Portable, rugged, versatile and accurate... Tempwatch gives instant temperature readings at any location. Time for you to take necessary precautions! You'll wonder how you worked without Tempwatch. Hand-held. No cords.

### Frostwatch™

A digital frost alarm that provides accurate readings from 15° to 50°F with sensitivity of 1/10°. The audible buzzer alarm range extends from 20° to 40°F is activated when the remote sensor falls to the level set on the dial. Temperature trends can be followed by glancing at the digital display.

Built-in accuracy test, back-up power failure warning alarm & an alarm to warn if sensor cable defects. An indispensable part of crop protection. Walnut case.



### Frost-o-meter

A practical and efficient temperature monitoring unit. Monitors temperature changes from 25° to 40°F. When temperature falls to selected frost setting a red light and an audible buzzer alarm are activated. Sensor can be placed as far as 1 mile from unit. Built-in accuracy test, power failure warning alarm and cable defect alarm.

### Frostgard

WIRELESS radio transmitter and receiver...no cables! Sensor and transmitter can be located 5 or more miles from receiver. Self contained lantern batteries power field transmitter. Unit can monitor up to 3 separate areas. Easy to install. Built in accuracy, battery and reception tests.

**AVAILABLE FROM:**

**WISCONSIN CRANBERRY CONSULTANT SERVICE**  
 Box 429  
 449 Greenwood Drive  
 Wisconsin Rapids, WI 54494  
 Phone: (717) 335-6356

**DECAS CRANBERRY COMPANY, INC.**  
 219 Main Street  
 Wareham, Massachusetts 02571  
 Phone: (617) 295-0147

# Beauty and destruction topics at winter confab

By MARY E. ARCHIBALD

Growers had a chance to view the brilliant blue and rare Pine Barrens gentian, the stillness of snow-ringed Pine Barrens stream and the ruins of a 19th century iron ore factory, among other outstanding scenes in a slide presentation by Ted Gordon, Pine Barrens naturalist and lecturer, at the annual winter meeting of the American Cranberry Growers Assn. held recently in Chatsworth, N.J.

On the bleak side of the agenda, those attending told of increasing destruction of their properties by vandals and expressed concern about the possible threat to growing operations of future housing development in the Pine Barrens.

Hope was voiced that vandalism could be curbed by tougher legal restrictions on trespassing.

On the Farmland Assessment Law, it was said there may be confusion about personal property rights unless the murkiness in the language about personal property rights is cleared up. No change in the law is contemplated at present.

PROF. PHILIP Marucci of the Cranberry and Blueberry Laboratory discussed multiple upright production in cranberries. In a study made in connection with tipworm production, it was found that Early Blacks do not get new uprights, he said.

Varying reactions are found with different new varieties.

Besides tipworm, among the factors stimulating multiple upright production are false blossom disease, frost, mechanical harvesting, hard pruning, general good culture, use of herbicides and genetic factors.

"There is an innate characteristic of some varieties to produce multiple uprights," Marucci explained.

In random samples in the studies, it was found that cranberries without tipworm had only 2 percent multiple uprights. Of those with moderate tipworm, 5 percent had multiple uprights.

On the Ben Lear variety with no tipworm, 19 out of 174—or 11 percent—had multiple uprights. On the Crowley with no tipworm, 12 out of 76—or 16 percent—had multiple uprights. On Variety 12 (which produces many but small berries) with no tipworm, there was 20 percent multiple uprights.

On Ben Lear with tipworm, there was a 13 percent increase in multiple uprights. On Crowley

with tipworm there was a 25 percent increase in multiple uprights. On Variety 12 with tipworm, there was a 30 percent increase in multiple uprights.

IN A RESEARCH report on the keeping quality of water harvested cranberries, Mike Ceponis of the USDA and Rutgers University said that the longer the berries stayed in bog water, the greater their physiological breakdown in storage.

Also, the greater maturity the berries had at harvesting, the greater breakdown there was in storage.

With early harvest, there was less breakdown, and; with later harvest, there was more breakdown.

The hand-picked cranberries, contrary to expectations, showed a greater degree of breakdown than the water-harvested berries.

It was found that color is a major factor in the physiological breakdown of cranberries in storage. In 1979, the role of color was clarified in three tests one week apart, starting in mid-September.

Early Blacks were green to red in the first test and deep pink to deep red in the last test. They were kept in water 4, 8, 12 and 24 hours, and rinsed, dried and stored for 12 weeks. The tests showed the physiological breakdown occurring after ripening. In the last test, those

(continued on page 8)



## COVER PHOTO

QUALITY control is the job of Paula Wilson, lab technician at the Ocean Spray plant in Kenosha, Wisconsin, who is seen drawing a test sample through a calibrated pipette. (Photo by Harvest)





# IT TAKES JUST ONE HERBICIDE, USED ONCE A YEAR, TO GET TO THE ROOT OF YOUR WEED PROBLEMS.



CASORON® G-4 herbicide, by itself, controls more than 40 weeds, including ferns, rushes and sedges that can cut your cranberry yields. And CASORON gets them all with just one pre-season application.

CASORON strikes weeds where they're most vulnerable: at their roots. It stops even the hardest perennials before they have a chance to rob precious nutrients from your crop.

Just apply CASORON granules to bogs in early spring and relax. CASORON goes to work immediately, to

kill problem weeds the first time around. And the following spring, it will save you expensive man-hours normally spent spraying or hand-weeding stragglers.

For more than a decade, cranberry growers have

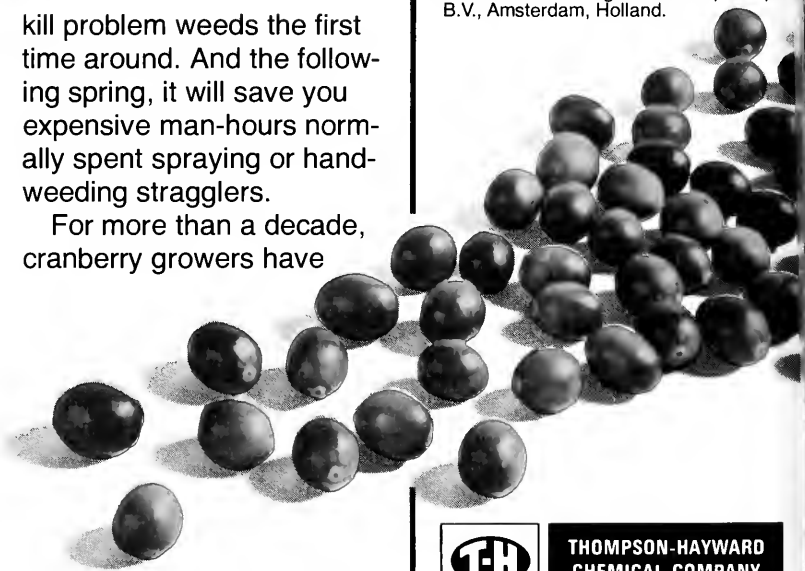
proved to themselves that CASORON gives the most effective control possible. Control that makes good economic sense.

Try it yourself. Get the once-a-year herbicide that puts an end to weed problems: CASORON herbicide granules.

## CASORON®

**G-4 HERBICIDE**

CASORON is a Reg. TM of Philips-Dupha B.V., Amsterdam, Holland.



**THOMPSON-HAYWARD  
CHEMICAL COMPANY**

\* NORTH AMERICAN PHILIPS COMPANY  
P.O. Box 2383 • Kansas City, Kansas 66110



# editorial



## SOCIAL SECURITY TAXES

The Social Security tax rate is 8.1 percent of 1979 earnings for self-employed farmers. The amount of earnings you pay on has been increased to \$22,900 so the maximum Social Security tax for 1979 is \$1,854.90. In 1980 the rate will remain the same at 8.1 percent but the income ceiling will rise to \$25,900.

## CRANBERRIES

THE NATIONAL CRANBERRY  
MAGAZINE

—Our 44th Year of Publication—

VOLUME 44—No. 4  
April 1980

Send correspondence to:

P.O. Box 249  
Cobalt CT 06414

Phone: (203) 342-4730

Bob Taylor, Publisher/Editor

### ADVISORS, CORRESPONDENTS

**Massachusetts**—Dr. Chester E. Cross, Director, Massachusetts Cranberry Experiment Station; Irving Demoranville, extension Cranberry specialist, Massachusetts Cranberry Station; Michael Couture, East Wareham, Mass.

**New Jersey**—Philip E. Marucci, cranberry and blueberry specialist, Cranberry and Blueberry Laboratory, Chatsworth, N.J.; Mary E. Archibald, Collingswood, N.J.

**Nova Scotia**—I.V. Hall, botanist, Research Station, Kentville, N.S.

**Oregon**—Arthur Poole, Coos County Extension Agent, Coquille, Ore.

**Washington**—Azmi Y. Shawa, extension agent in horticulture, Coastal Washington Research and Extension Unit, Long Beach, Wash.

**Wisconsin**—Vernon Goldsworthy, Eagle River, Wisc.; Tod D. Planer, Farm Management Agent, Wood County, Wisc.; Joan E. Humphrey, Friendship, Wisc.

CRANBERRIES is published monthly by the Taylor Publishing Co., Wellwyn Drive, Portland CT 06480. Second class postage is paid at the Portland, Conn., Post Office. Price is \$5 a year, 75 cents a copy in U.S.; Canada, \$6 a year; all other countries, \$8 a year. Copyright 1980 by Taylor Publishing.

ISSN: 0011-0787

## Which scientist is right?

You remember all the talk in recent years about how drinking milk will build up cholesterol levels, leading to heart attacks.

Well, along comes an item in the excellent newsletter put out by the Massachusetts Farm Bureau Federation, which refers to studies by a Penn State scientist, Dr. Robert McCarthy. Now it seems that Dr. McCarthy, who has isolated one of two cholesterol inhibitors in cow's milk, says that drinking milk may actually lower blood serum cholesterol levels. He became intrigued with the issue after reading a study which showed that the Masai of Africa have a low serum cholesterol level even though their diet consists almost entirely of milk.

Which should all go to show that we should maintain a healthy skepticism, whether we are dealing with scientific matters relating to dairy farming, kumquat farming or cranberry farming.

FOR BANKING SERVICE  
AND CONVENIENCE  
UNSURPASSED IN  
YOUR COMMUNITY.

THE  
NATIONAL BANK  
OF WAREHAM

Marion	Wareham	Carver
36 Main St.	237 Main St.	Main & Center Sts.
	295-2100	

MEMBER F.D.I.C.

# Marketing group predicts top crop

A record crop for 1980 of 2,561,416 barrels.

That's the figure the Cranberry Marketing Committee came up with at a recent meeting at the Sheraton-Poste Inn in Cherry Hill, N.J.

The average estimate for Massachusetts is 1,075,000 bbls. and for Wisconsin, 981,250 bbls. Estimates for the other states are: New Jersey, 256,666 bbls.; Oregon, 96,500; Washington Washington, 152,000.

The estimates are arrived at from averaging the predictions made by individual members.

For example, in the case of Wisconsin, predictions of 1,000,000 and 950,000 were made, respectively, by members Richard H. Indermuehle and Clare L. Searles. Alternate Patrick A. Getzin predicted 975,000 bbls. and committee fieldman Clayton L. Garnett opted for 1,000,000.

UNANIMOUS was the vote against an allotment, which the committee is empowered to impose if over-production is threatened.

That possibility is not anticipated. In fact, the committee estimates that there will be a deficit in production in 1980 of 2,834 bbls.

With Canadian production figured in, the committee predicted that the total crop for 1980 will be 2,728,416 bbls. A carry-in of 617,400 bbls on Sept. 1, 1980 would mean a total of 3,345,816 bbls., which would be reduced 100,000 bbls. by an estimated 4 percent shrinkage.

The deficit is arrived at because a total trade demand of 3,248,650 bbls. is anticipated against a total market supply of 3,245,816 bbls.

A REQUEST BY Massachusetts grower Willard Rhodes that the committee adopt a resolution encouraging the planting of new cranberry acreage was met with the

response that additional base quantity is available each year from the reserve pool for existing growers and new growers.

The committee voted unanimously to interview Charles Nagel, Rita Wood, Susan Nitzke, Jane Wyatt and David Pimentel, applicants for the committee public member position, at the annual meeting.

The annual meeting will be held Aug. 20 and 21 in either Wareham or Plymouth, Mass.

Three grower appeals for additional base quantity from the 1979 reserve pool were denied on the grounds of equal treatment with other growers who had been refused additional base quantity.

Also adopted unanimously was a 2 percent reserve pool for 1980 if 100 percent of the 2 percent is allocated to existing growers.

THE COMMITTEE voted to refer alleged violations of the reporting provisions of the Cranberry Marketing Order by Massachusetts grower Lawrence W. Pink to the USDA for investigation.

## OCEAN SPRAY PRESENTS BROKER ANNUAL PRIZES

Six regional food brokers—retail and food service—have been named winners of the annual Broker of the Year awards sponsored by Ocean Spray Cranberries Inc.

Retail brokerages honored include: Foodsales Retail Division of Philadelphia; De Rose Food Brokers of Buffalo, and the Mitchell Co. of Grand Rapids.

Food service winners were: Foodsales Inc., Philadelphia; Mid-Continent Food Service, St. Louis, and McCarty-Culver of Jackson, Miss.

The awards, covering the sales period from July 1, 1978, through June 30, 1979, were made in three different categories keyed to market size. According to Andrew J. Murray, Ocean Spray vice president for sales, they were based on several criteria ranging from overall sales and promotional achievements to administrative abilities and feature/display.

A monetary prize accompanied all of the award citations. Each of the winning brokerage firms received a

check from Ocean Spray amounting to one half of one percent of their total 1979 sales year billings.

## DIRECTORY AVAILABLE

Free single copies of the directory "The Federal-State Market News Reports," are available from the Information Division, Agricultural Marketing Service, U.S. Department of Agriculture, Washington, D.C. 20250.

# DIRECTORY for Cranberry Growers

## The CHARLES W. HARRIS Company

451 Old Somerset Avenue  
North Dighton, Mass.  
Phone 824-5607

AMES  
Irrigation Systems  
RAIN BIRD  
Sprinklers  
HALE  
Pumps

Highest Quality Products  
with Satisfaction Guaranteed

## Farm Credit Service

Box 7, Taunton, Mass. 02781  
Tel. 617-824-7578

PRODUCTION CREDIT LOANS  
LAND BANK MORTGAGES

Office — on Route 44  
1/4 Mile West of Rt. 24

Nutgrass



Rice cutgrass



# Control nutgrass and cutgrass without harming your vines. Use Devrinol.<sup>®</sup>

Selective Herbicide

**Massachusetts cranberry growers**, you can control both nutgrass and rice cutgrass without harming your vines.

Use Devrinol<sup>®</sup> herbicide. Devrinol gives excellent control of these tough weeds with good crop tolerance.

Apply Devrinol 10-G in the spring, before weeds begin to grow. Or, you can apply Devrinol in the fall, after harvest.

Control nutgrass and cutgrass without harming your vines. See your Stauffer supplier for Devrinol. For use in Massachusetts only. Always follow label directions carefully. Stauffer Chemical Company, Agricultural Chemical Division, Westport, Connecticut 06880.



# Devrinol<sup>®</sup>

## NEW JERSEY . . .

(continued from page 3)

berries with the most color broke down less than those with lighter color.

In tests conducted during 1977 and 1978, maturity seemed to be the key to greater breakdown. The tests also showed that bruising predisposes berries to decay.

**DR. PAUL ECK** of Rutgers University said that in fertilizer studies conducted at the experimental station, berries given six treatments of phosphorus at the treatment plots showed a significant difference in yield at the 20 lb. rate in contrast to the 10 lb. rate. There was not much advantage to adding 40, 80 or 160 pounds, he said.

Ten pounds of phosphorus gave a yield of 114 barrels per acre, while 20 pounds gave 139 barrels per acre. Forty pounds gave 135, 80 pounds gave 139

and 160 pounds gave 132.

The 20 lb. rate gave an increase in the size of the berry. The increase in size was not improved by increasing the phosphorus level still more.

Five nutrients were applied as liquid, solid and slow release compounds on selected treatment plots. The application of slow release fertilizer appeared to give the best yield. There was a significant difference between the slow release and split application. The split application is half of what would be received in a single application.

The size of the fruit was much smaller with the split application while the single solid application gave the largest berry. The split solid gave a much smaller berry. Split liquid application gave the smallest fruit and all split applications result in smaller fruit.

In conducting studies of trace elements, poorest yields resulted

when zinc was omitted. It is believed that a balance of trace elements is important in producing good yields rather than the specific amounts of a single element.

**DR. ALLAN STRETCH**, in reporting on fungicides and their differential effects on cranberry fruit rotting fungi, said that Difolatan appears to be doing a good job on *Sporonema* but is not as effective on *Acanthomyces*. It does a superior job to Ferbam, the universally used fungicide, although Ferbam controls *Acanthomyces* better than Difolatan, he said.

**IN A SUMMARY** of 50 years of weather data collection at Pemberton, Prof. Marucci said long range trends showed that in the first part of the century, temperatures were above average and the precipitation below average. In the second half of the century, temperatures were below average and precipitation above average.

There is a definite trend to lower temperatures and greater precipitation

A MOST COMPLETE INVENTORY OF  
IRRIGATION ACCESSORIES



# LARCHMONT

ENGINEERING & IRRIGATION, INC.

P.O. Box 66, 11 Larchmont Lane, Lexington, MA 02173 (617) 862-2550

IRRIGATION EQUIPMENT DESIGNED ESPECIALLY  
FOR THE CRANBERRY INDUSTRY

FOR EXAMPLE:

*Gorman-Rupp Self Priming Electric Sprinkler Pumps*  
*Proven Quick Couple Riser*  
*Ingersoll-Rand Water Harvest Pumps*  
*Aluminum Insert Coupling For 4" Poly Pipe*

Contact:

Larchmont Engineering  
Phil Tropeano, President  
(617) 862-2550 (Call Collect)



Contact:

Bill Stearns, Plymouth, Mass.  
(617) 746-6048  
(617) 746-2610



le said.  
 July and August are close in average temperature as are January and February. There are yearly fluctuations in the mean temperature but generally these are no more than 1 degree from one year to the next.

The most rainy month was August 1933, which had 12.77 inches. The warmest month is always July, with an average temperature of 77 to 79 degrees F.

February 1934 with 20.40 inches was the snowiest month on record. The heaviest single snowfall occurred on March 19-21, 1958, when 6 inches fell. This almost equaled the average total annual snowfall of 9 inches.

The distribution of sub-zero weather showed six years for December, 5 for January, 14 for February and one for March. Sub-zero weather occurred in 27 years. The coldest years were 1970, 1963, 1958, 1962 and 1978. The warmest were 1931, 1953, 1946, 1949 and 1945.

The colder winter temperatures recently have had an effect on insects. In excessively cold winters, scale and mealybug problems practically disappear. During the excessively mild winters of 1949, 1951, 1952, 1953 and 1954, there was oxygenated water and unprecedented sparganthis and cranberry scale.

**IN REPORTING** on a proposed plan to permit cranberry and blueberry growing on state-owned land on a rental basis, Richard D. Chumney of the N.J. Dept. of Agriculture said information is needed on how land owned by the state or to be owned by the state can best be used.

There is acreage owned by the state under Green Acres, much of which will be suitable for cranberries and blueberries and not just held for recreational use, he said. A program needs to be developed, he added, so the state could offer prospective growers a long term lease agreement.

**DR. ERIC G. STONE**, who is breeding new varieties of cranberries at the Rutgers Experimental Station, said he made 14 reciprocal crosses in the fall in the experimental bogs there with 14 varieties plus additional crosses with Crowley. There is a total of almost 1,100 crossing attempts. In the bogs, 68 percent of these set fruit. Out of the crosses, 900 berries have been obtained. Breeding is being conducted to find an earlier producing variety, a resistant variety and a higher yielding variety.

**IN A REPORT** on the cranberry marketing order, Walter Z. Fort, New Jersey fieldman, said only 52,000 barrels are to be apportioned among those who have put in requests.

He said that in the early days of cranberry production, 600,000 barrels or less were produced in a 28-year period. Now, as of Aug. 1, 600,000 barrels are needed to keep the pipelines filled until new cranberries come in, he added.

**NEW OFFICERS** were elected. They are: Norman LeMunyon, president; Fred Mehler, vice president; Phil Marucci, secretary; Paul Eck, treasurer.

**MIKE FLINT** of the New Jersey Crop Reporting Service said that New Jersey cranberry production in 1979 totaled 253,000 barrels, 13 percent above 1978. Acreage harvested, at 3,000, was unchanged from the

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

# Berries

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

# wanted!

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

# NOW!!

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

We need more high quality Massachusetts grown cranberries.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

We offer top prices, high incentives, prompt payment, no retains. No long waiting at delivery. Better test room results. Water and Dry Harvested accepted. Short or long term contracts available. No shrinkage. No screening charges.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

Come in and join our satisfied Growers.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

## United

## Cranberry

## Growers

## Associates

## Inc.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

HAWKS AVENUE,  
HANSON, MASS.

02341  
293-3739  
or  
293-3720

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

**STOCKS & BONDS**  
 have been our business for over 45 years.  
 We are easy to reach.  
 Call us for what YOU need to know.

**Gage-Wiley & Co., Inc.**  
 40 Court Street, Plymouth, Mass. 02361  
**617-746-3322** Call Toll Free in Mass. **1-800-242-0263**

previous year but the average yield of 84.3 barrels per acre compares with 74.3 in 1978 and the record high yield of 89 barrels per acre in 1976.

Cranberry production in the U.S. was a record 2.47 million barrels in 1979, 1 percent above the previous record a year earlier, Flint noted.

Massachusetts recorded a production decline but maintained its position as the leading cranberry producing state.

## WASHINGTON AGENT

# Reviews decade, gives 80's aims

By AZMI Y. SHAWA

Several achievements were accomplished during the last decade in cranberry culture.

Through research at the Coastal Washington Research and Extension Unit, it was possible to screen and evaluate many herbicides for the control of resistant weeds growing in the bogs. Rice cutgrass, saltgrass running tussocks and Pacific witch grass were spreading fast without any control. Evital was found to be an effective product in control of these weeds. Other resistant weeds such as buckbrush, buttercup, silver leaf, aster and lotus can be controlled by experimental glyphosate, terbacil or devrinol, which will hopefully be cleared for legal usage in 1980.

RESEARCH WORK showed that copper deficiency is linked to monkey-faced berries. Bordeaux mixture applications were skipped in the sixties and other easier-to-apply fungicides were substituted. This created a copper deficiency in many Washington bogs. Any copper compound such as copper chelate, bordeaux mixture or kocide supplemented the copper need in the cranberry vines and

prevented the formation of monkey-faced berries.

Cranberry fertility indices through leaf analysis were established. Growers can complement soil analysis with leaf analysis and obtain a clear picture of the elements available in the soil and what the vines are utilizing for a better fertility program.

Sulfur-coated urea (SCU) and isobutylidene (IBDU), two slow release nitrogen formulations, were shown to be suitable sources of N for cranberries in western Washington. The initial quick release and the following continuous release of N during blossom, fruit set and fruit development adequately satisfied the demand of cranberries for N. A single application in April or May satisfactorily replaced multiple applications of urea applied at the same total N rate. Yields were increased and damage from foot traffic was minimized.

Extensive experimental work with ethephon has been conducted for color enhancement. Ethephon was found to be suitable for increasing color in McFarlin cranberries. Unfortunately, respiration rate, especially CO<sub>2</sub> production, was increased significantly during the storage period. Also, percentage breakdown of fruit increased. Ethephon treated berries may be used for processing purposes in making cranberry juice cocktail and cranberry sauce, but are unsuitable for fresh berry market due to lack of keeping quality.

Nutritional foliar spray ZKP applied at hook stage and after fruit set produced sound berries with good keeping quality. It significantly increased berry size and weight and reduced percentage breakdown during storage.

LIME APPLICATIONS improved cranberry keeping quality, reduced breakdown during storage and increased yield significantly.

New and effective fungicides were added to the list, such as kocide and difolatan.

Classes for first aid and personal safety and certification of pesticide applicators were conducted. Certification programs are designed to ensure that users have the competence to handle restricted-use pesticides without causing danger to themselves, the public or the environment.

Last, but not least, it was possible to determine irrigation requirements for cranberry bogs. Data from lysime and evaporation pan showed that

## STAY INFORMED

subscribe to CRANBERRIES

\$5 a year; \$9 two years

Send check or money order to:

CRANBERRIES

P.O. Box 249

COBALT CT 06414

## Niemi Electric Co.

ROBERT NIEMI

ELECTRICAL CONTRACTORS

HEAT, LIGHT and POWER WIRING

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL

TEL. 295-1880

Robert Niemi

Pinehurst Dr.

Wareham, Mass.



cranberries required .5-1.0 inch water per week or what is equivalent to 8-10 hours per week sprinkling, applied according to weather conditions. A shortage of irrigation affected the development of late set berries, produced small size berries and enhanced undesired early dormancy.

On the other hand, it should be remembered that in the 70's cranberry growers lost the use of DDT, Dieldrin, silvex and 2,4,5-T.

Hopefully, effective and safer insecticides are in the offing. To mention a few: furadan, glyphosate, terbacil, cyfluthrin and 2,4-D amine.

**THE THEME** in the 1980's will be "Super Bog." The aim: to produce higher quality and an abundance of cranberries to meet the increasing demand.

The emphasis will be on the following projects:

- 1) Reaching optimum commercial cranberry production in a shorter period, 3-4 years instead of 8-10 years, following planting.
- 2) Improving keeping quality and color.
- 3) Screening new herbicides for the control of resistant weeds.
- 4) Determining timing and number of fungicide applications according to peak fungus sporulation.
- 5) The feasibility of the use of pheromone traps for controlling the black headed fireworm.
- 6) Screening new insecticides for the control of black vine weevil and the cranberry girdler.

## U.S. EXPORTS TO JAPAN TOP 5 BILLION DOLLARS

By BEVERLY HORSLEY

Assoc. Ed., Foreign Agriculture  
Whatever the reason—U.S. success in trade negotiations, changing Japanese eating habits, or merely marketplace realities—one thing is clear: U.S. agriculture continues to have a bright future in the Japanese market.

At the turn of the decade the largest billion dollar buyer of U.S. farm products, Japan by calendar 1978 had more than quadrupled that level—and boosted taking 14 percent above those in 1977—to become a \$4 billion market. It headed toward \$5.3 billion in calendar 1979, with gainers ranging from soybeans, high quality U.S. beef, to U.S. produced sake.



**NEWLY promoted to the post of assistant product manager, cranberry drinks, at Ocean Spray is Betsy White. She'll be primarily responsible for management of CranGrape. White received her bachelor's degree at Mount Holyoke and an MBA at Columbia University.**

### PROTECT THOSE BEES

"Bees are necessary, don't kill them," warns the Oregon State University Extension Service.

**BEES ARE** essential for berry set, particularly in cranberry bogs, the service notes. Every effort should be made to protect these pollinating insects.

The following suggestions are made to give maximum protection to bees:

- 1-Avoid using insecticides during

the bloom period. If insecticides are used, notify the beekeeper at least 48 hours in advance so that he can protect his bees.

2-Do not introduce bees into the bog until there is at least 10 percent bloom.

3-If for some reason insecticides are needed during the bloom period, make application in the evening after bee activity has ceased. Never use Parathion, Guthion, Sevin or diazinon on bloom.

4-Have the beekeeper move bees from the bog as soon as possible after pollination.

5-Competing bloom, such as along dikes, etc., can be more attractive to honey bees than berry blossoms. Insecticide residues settling on these dike flowers can potentially be the cause of heavy bee loss.

6-For bee protection and increased pollination, mow competing bloom before the period of fruit pollination.

## OREGON GROWERS GET NEW GIRDLER CONTROL

Arthur Poole, Oregon extension agent, notes that diazinon 14G is now registered in Oregon for cranberry girdler control.

Adds Poole: "We are now in the delayed-dormant season. Frost protection equipment should be in good working order. And preparations should be underway for application of the first fungicide spray. This should preferably be a copper material."

## BARK RIVER *Culvert and Equipment Co.*

(Wisconsin-Michigan Growers)

**ALUMINUM HEADGATES FABRICATED TO YOUR SPECIFICATIONS**

**HAND WHEEL OPERATED GATES**

**ALUMINUM CORRUGATED PIPE**

**INTERNATIONAL POWER UNITS**

**INTERNATIONAL CRAWLER TRACTORS**

**WARNER & SWASEY EXCAVATORS**

**WALDON LOADERS AND USED EQUIPMENT**

Eau Claire, Wis.  
715-835-5157

Madison, Wis.  
608-222-4151

Escanaba, Mich.  
906-786-6920

Green Bay, Wis.  
414-435-6676

Milwaukee, Wis.  
414-461-5440

Ironwood, Mich.  
906-932-0222



**INTERNATIONAL CONSTRUCTION EQUIPMENT**

INTERNATIONAL HARVESTER COMPANY

# Promotions made at Ocean Spray

## PATRICK M. McCARTHY

Patrick M. McCarthy has been promoted to group vice president—operations for Ocean Spray Cranberries Inc.

McCarthy will be responsible for the company's manufacturing and R&D activities as well as continuing responsibilities for marketing.

He joined Ocean Spray in May 1968 as national field sales manager and has held several other posts, most recently senior vice president—marketing, prior to his latest promotion. Before joining Ocean Spray, he held sales management posts at Wilkinson Sword, Carter Products and Vick Chemical.

A native of Walnut, Ill., McCarthy received a BS in business administration from Bradley University in Peoria, Ill. He now resides with his family in Marshfield, Mass.

## ENDRE ENDRESEN JR.

Endre Endresen Jr. has been appointed senior vice president—resource development and assistant to the president for Ocean Spray Cranberries Inc.

Endresen will focus his efforts on improving Ocean Spray's

competitive position in the marketplace. He also will represent the president's office in a number of member relations and other special assignments.

He joined Ocean Spray in 1969 as vice president—operations and held several other posts prior to his present promotion. His most recent position was senior vice president—manufacturing. Before joining Ocean Spray, he held posts with the William Underwood Co., the Pacific Cracker Division of Fairmont Foods and the Campbell Soup Co.

Endresen holds a BS in food technology from the University of Massachusetts and an MS in industrial management from MIT. A native of Newton, he resides with his family in Duxbury.

## A hairy story!

All that hair left behind on the barbershop floor may have a use—to repel deer.

University of Wisconsin Extension reports receiving information from the Peninsular Experiment Station's Dr. Frank Gilbert that suggests that human

hair shows promise for reducing deer damage to orchards.

If orchards, why not marshes? Deer are a menace to many Wisconsin cranberry growers.

Jay McAninch, wildlife biologist at New York's Cary Arboretum, suggests obtaining the hair from barbershops, note UWEX's *Badger Fruit Tips*.

Men's hair is preferred. Why? Women's hair is more frequently washed and sprayed, which reduces the natural oily, waxy secretions that panic deer.

A small handful of hair, says *Fruit Tips*, can be tied in small cheesecloth balls and placed in small parts (bolt) bags or in Bul Durham type tobacco bags. The tobacco bags have drawstrings which make attachment of the bags to trees a simple matter of tying the bags to limbs on mature trees or trunks of small trees.

An Ohio fruit grower reports that in 1979 human hair was generally more successful than tankage, repellent sprays or rubbing stakes in reducing deer nipping of young shoots and rubbing on young apple trees. The repellent effect lasted from late winter to midsummer.

You can't be stingy with this technique. The repellent effect doesn't last beyond 1 to 1½ yards away so many bags have to be used over a large area.

Dr. Scott Craven, Wildlife Extension Specialist, Russell Labs, UW-Madison, Madison WI 53706, can be contacted for further information on deer repellants.

## CHECK MATH SAYS IRS

Federal taxpayers should double check their arithmetic before filing their income tax return to avoid delaying their refund check, the IRS says.

A total of 155,019 Massachusetts taxpayers made mathematical errors when filing last year. Of that number 57,664 overcharged themselves a total of \$7,637,415.

**BEATON'S  
CRANBERRY  
GROWERS SERVICE**

Office  
295-2222

K. Beaton  
295-2207



WAREHAM, MASS.

D. Beaton  
888-1288

P. Beaton  
947-3601

Specializing in

- DITCHING
- SANDING
- COMPLETE BOG MANAGEMENT

- NETTING
- WEED CLIPPING
- HARVESTING (Wet and Dry)

Also

Complete line of portable Crisafulli Pumps 2" - 16"  
Plastic netting for suction boxes



# Bigger crop in '80; young faces in bog

By MICHAEL COUTURE

More than 100 regional growers attended the recent meeting at the Massachusetts Cranberry Experiment Station in East Wareham and heard Dr. Chester E. Cross, director, predict a 1,150,000 barrel yield for 1980. This would compare with a 1,080,000 harvest for 1979.

Dr. Cross said that many new faces existed among the growers, the result of a younger generation purchasing the bogs.

"I FIND it encouraging that youthful vigor is coming into the business," he said.

Because of the rather mild winter (at least until the middle of February),

Dr. Cross said, he felt the usual killing conditions for cranberries were not present. However, he warned growers, do not become unprepared and let the spring frosts creep in unnoticed.

"There's no remedy against the frost and once you've had it hit an unguarded bog, you've had it," he said. "So stay awake at night."

## HONEY PRODUCTION UP

Wisconsin rose from 9th to 8th place among the nation's honey producers in 1979.

Wisconsin produced 8.8 million pounds of honey, 39 percent above the 1978 figure of 6.3 million pounds.

Colony numbers at 135,000 were 9 percent above last year. The average yield per colony was 65 pounds.

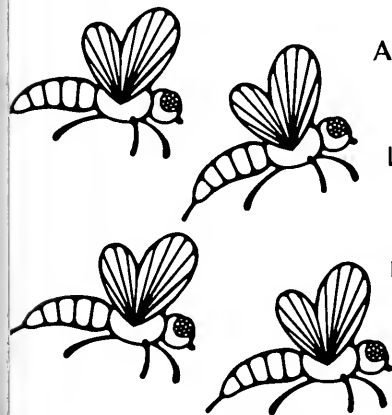
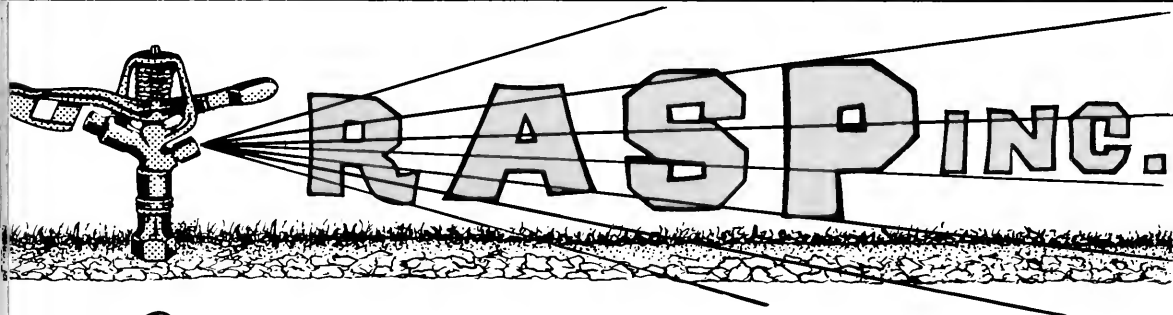
According to Dr. Cross, the 1980 berries should be of good size. As an aside, he called attention to the forecast of 1,080,000 barrels made at last summer's annual growers meeting by Michael Poisson of the USDA. At the time, young Poisson was nervous over facing the growers for his first meeting. But he delivered a good forecast, Cross said.

Poisson has since been transferred. DR. CROSS warned growers not to trample their crop, a mistake made by many attempting to control weed growth.

"We have enough weed killers today and a section that had a weed problem last year should be treated with a weed killer this spring," he said.

In a light manner, Dr. Cross recalled that the editor of the state beekeeper's publication recently accused cranberry growers of "assault and battery with a dangerous weapon (pesticides and herbicides)."

Dr. Cross said there are some beekeepers who want growers to obtain the permission of neighbors in order to obtain a permit for the spraying of pesticides and herbicides.



AUTHORIZED AGWAY REPRESENTATIVE

LICENSED SPRAYING OF PESTICIDES (Seasonal)

WITH A COMPLETE LINE OF:

CRANBERRY INSECTICIDES • FUNGICIDES  
HERBICIDES • MITICIDES • and FERTILIZERS  
IN STOCK!

ROBERT A. ALBERGHINI - SPRAYING  
RFD 5 PLYMOUTH STREET, CARVER, MASS. 02330  
TELEPHONE: 866-4429

For further information, call evenings after 5:30

**Bugs**



Dr. Karl H. Deubert said that local streams and ponds were relatively free of pesticide, herbicide and fertilizer residue in the tests he had taken last year. As for fish kills, Dr. Deubert said the fish died of oxygen deficiency rather than chemicals. He had analyzed several fish from area kills.

Also, federal inspectors, according to Dr. Deubert, found nothing in the waters and they had checked with regularity.

**DR. ROBERT DEVLIN**, plant physiologist, said that wild beans, a weed that can affect cranberry growth severely, if left unattended, has been controlled by several new herbicides. However, these herbicides are in the experimental stage and are not on the market. He noted that it might be as much as six years before they are made available to growers.

Among the products are metribuzine, acifluorfen, defy and mefluidide, with which particular success has been realized. Dr. Devlin called pendimethalyn the least promising because of the crop damage it caused.

Another herbicide he tested with success was krovar for the control of rushes along the growing canals. But the chemical might be too effective, he said, because it ends up killing everything in the vicinity, including the grasses, which could lead to erosion.

Other herbicides include: UBI-5734 from Uniroyal for nut and cut grasses; Roundup for nut sedge, cutgrass, three-square spike, goldenrod and rushes; R-40244 for nutsedge.

To acquaint the newer growers with various weeds, Irving "Dee" Demoranville of the station showed the different types on slides.



## MASSACHUSETTS

February was very cold, averaging 4.3 degrees a day below normal. This was the ninth coldest in our records and a continuation of a series of cold

Februarys over the past 20 years, when there have been only two that were substantially on the warm side of normal. Maximum temperature was 51 degrees on the 21st and minimum 5 degrees on the 1st and 11th. The only warmer than average days were the 20th and 21st. Cooler than average periods occurred on the 1st-6th, 9th-11th, 17th and 27th-29th.

Precipitation totaled only 0.97 inches or about 2½ inches below normal.

This was the second driest February in our records. Precipitation occurred on five days with 0.59 inches on the 16th as the greatest storm. We are about 5 2/3 inches below normal for the two month period and about 12 2/3 inches below the 1979 period. This is the driest January-February period in our records. Many bogs are short of water for flooding. Fortunately, the weather has not been conducive to winterkill so the crop potential is probably intact.

Snowfall totaled 5 inches or about 2/3 of normal. The total for the winter of only 6 inches is the least on record.

However, on the lower Cape snowfall has been substantially greater.

I. E. D.

## NOVA SCOTIA

The mean temperature for February was minus 6.2 degrees C compared with

the 50 year average of minus 6.1. Rainfall for the month was 2.6 mm at snow was 28.2 cm. All told it was a pleasant month with 104 hours of sunshine.

A note from British Columbia stated: "Pruning is almost complete and growers are preparing to take frost protection measures beginning in mid March."

I. V. H.

## WASHINGTON

February was warm with a maxi-

## CRANBERRY GROWERS REALTY

Listings of buyers and sellers welcomed on cranberry acreage and upland.

Appraisals

**DOUGLAS R. BEATON**

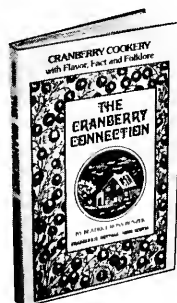
E. Sandwich, Mass.  
02537

(617) 888-1288

## The scoop of the year!

*Cranberry Flavor, Fact and Folklore in*

**THE CRANBERRY CONNECTION**, by Beatrice Buszek. Your favorite berry pops up in kitchen-tested recipes for every delight from Cranberry Bog to Cranberry-Banana Bread, Cranberry Avocado Dip, and countless other desserts, drinks, salads, entrees. "A fascinating revelation of the many uses for cranberries . . . you'll find this book a treasure."—*Des Moines Register*. Paperback, \$7.95.



Please send \_\_\_\_\_ copies of **THE CRANBERRY CONNECTION**, \$7.95 each.

Name \_\_\_\_\_

Address \_\_\_\_\_

Zip \_\_\_\_\_

Add \$1.00 for postage; Conn. residents add 7% sales tax.

**CRANBERRIES MAGAZINE**  
P. O. Box 249, Cobalt, CT 06414

num temperature of 60 degrees on the 28th and the minimum only 27 degrees on the 11th. Only seven days registered below the average of 50.6 degrees mean high.

Rainfall totaled 14.05 inches, which is 4.85 inches above normal for February. Three inches of snow came on the 14th but was soon gone. There was measurable precipitation on 21 days, with 3.23 inches on the 27th as the greatest storm preceded by 2.07 inches on the 26th. Much flooding occurred in the Long Beach Peninsula area.

A. Y. S.

## regional news notes

### Massachusetts

By IRVING DEMORANVILLE

Dr. Robert Devlin of the Massachusetts Cranberry Station presented a paper on glyphosate (Roundup) at the recent Weed Science Society of America annual meeting in Toronto.

\*\*\*\*

Members of the Cape Cod Cranberry Growers Assn. Frost Warning Service who have had a change in their telephone number(s) should inform Irving Demoranville at the Cranberry Station before April 15.

### Nova Scotia

By IVAN V. HALL

We have been informed that our bulletin, "Growing Cranberries" Agric. Can. Publ. 1282 is in need of reprinting as about 1,500 copies have been distributed each year since 1974. Plans for revision are being considered at this time.

### Wisconsin

By VERNON GOLDSWORTHY

Recently I received a letter from Hamish B. Paterson of New Zealand, to whom I furnished Searles, Howes, LeMunyon, Stevens and Pilgrims

cuttings for experimental purposes.

He writes:

"I have notification from the Ministry of Agriculture and Fisheries in Auckland that the vines arrived in fine order and have been duly planted out. I will most certainly keep you informed as to their progress.

"They have to remain in Auckland for one growing season under quarantine, and, when they are released, I intend to put them into a trial, as does the Ministry. Will inform you of results as they come to us."



### CRANBERRY LEG OF LAMB

1 4½ to 5 lb. leg of lamb  
1 clove garlic, sliced  
1 teaspoon ground ginger  
1 teaspoon dry mustard  
1 8 ounce can (1 cup) whole  
cranberry sauce  
½ cup cherry jam  
2 tablespoons port wine  
2 tablespoons all purpose flour  
¼ cup cold water

Cut 2 or 3 slits in lamb; insert garlic pieces in slits. Combine ginger and mustard; rub over lamb. Place meat, fat side up, on rack in shallow roasting pan. Roast in 325 degree oven for 3 to 3½ hours or till meat thermometer registers 175 degrees to 180 degrees.

Meanwhile, in saucepan, combine cranberry sauce and jam. Stir over low heat till melted; stir in wine. After meat has roasted 1 hour, pour sauce over lamb. Baste occasionally during roasting.

Place meat on warm serving platter. Skim excess fat from meat juices to make 1¼ cups. Blend flour with water; add to meat juices. Cook quickly, stirring constantly, till mixture thickens and bubbles. Season to taste with salt and pepper. Pass sauce with lamb. Makes 10 to 12 servings.

### CORRUGATED CULVERT PIPE

and

### FLOW GATES

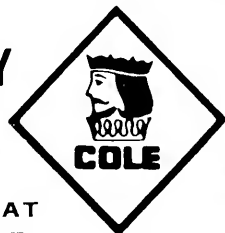
Aluminum - Galvanized  
Asphalt Coated

### Felker Bros. Corp.

MARSHFIELD WISCONSIN

Area 715 384-3121

### WISCONSIN CRANBERRY HEADQUARTERS FOR



EVITAL • SOLO • DIQUAT  
2-4-D • DOWPON • ETHREL  
SEVIN • PARATHION • GUTHION • DIAZINON  
KOCIDE • DIFOLITAN • FERBAM  
COPPER SULFATE • PRINCEP

### Cole Chemical Supply

DIVISION OF *Hopkins* AGRICULTURAL CHEMICAL CO  
P.O. BOX 7211, MADISON, WISCONSIN 53707  
608-221-1581

# 1930 - 1980 50 YEARS OF SUCCESSFUL COMMITMENT

- To handling members' crops — all year, every year
- To developing and expanding the market for members' crops — nationally and internationally
- To generating consumer acceptance of the Ocean Spray trademark as the standard of excellence for the industry
- To increasing grower returns at a rate consistent with long-term stability and growth

Ocean Spray: the handler of choice now  
— and for the years ahead



Ocean Spray Cranberries, Inc., Plymouth, MA 02860

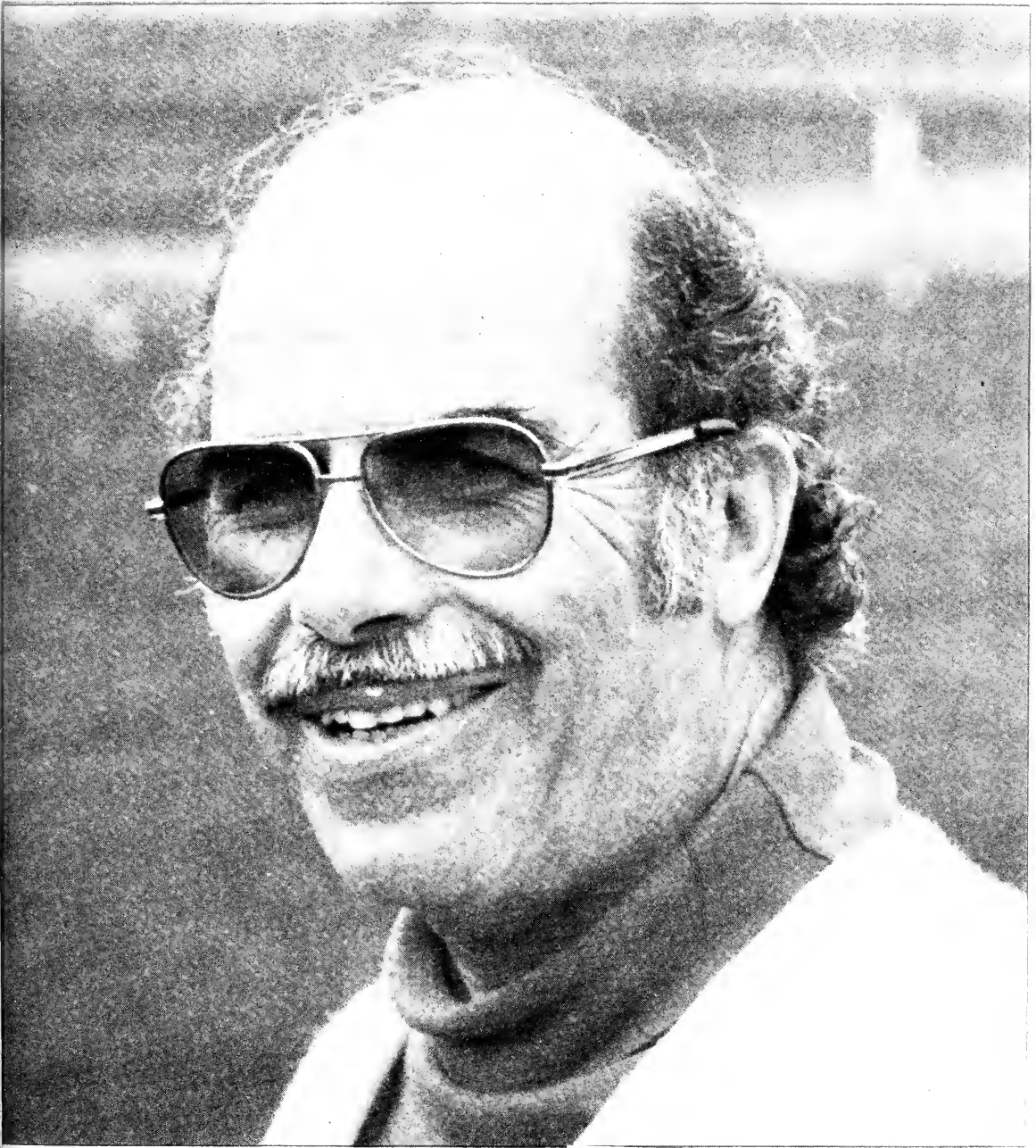


# CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

Vol. 44, No. 5

May 1980



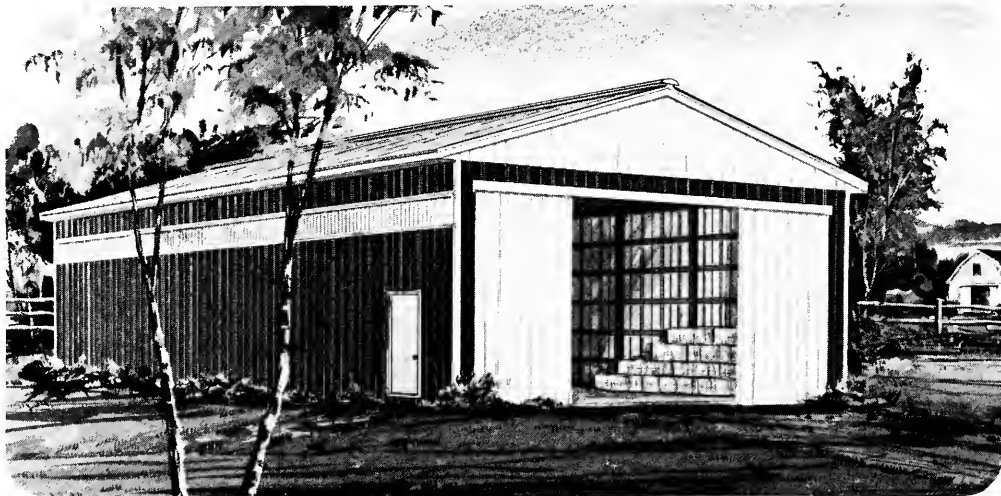
**Profile on Shawa . . .3**

★★★★★

**Speed up growth . . .7**

Library UMass  
Serials Section  
Amherst MA 01002

# AGWAY



## BEAT INFLATION...

### Buy An AGWAY Package Building NOW!

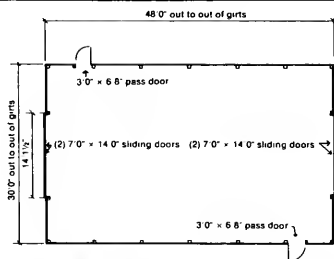
(CONSTRUCTION TO BE HANDLED BY YOU  
OR YOUR CONTRACTOR.)

The price quoted by Agway is guaranteed for 90 days after signing the contract and covers all materials needed except plumbing, heating, electrical supplies, concrete floor, insulation and interior finishing products.

#### PACKAGE INCLUDES:

- BLUEPRINTS designed to comply with most building codes.
- MATERIAL SPECIFICATIONS LIST.
- GUARANTEED ADEQUATE SUPPLY OF MATERIALS TO COMPLETE THE BUILDING when blueprints & specifications are followed.
- PLANNING ASSISTANCE including help with developing a total budget for the building: site cost, site preparation, electrical, plumbing, water, etc.

**FINANCING AVAILABLE** through Telmark, Agway's own financing company. Ask your salesperson for details.



### The 30/48 Storage

30' x 48' x 16'

General purpose building. Ideal for: • farm equipment • crop storage • tractors • fertilizer storage • seed storage • fencing supplies • pesticides • snow blades, seasonal equipment

FROM \$8,300

## AGWAY BUILDING MATERIALS

15 Washington St., Rte. 53  
PEMBROKE—Tel: 826-5171

New Store Hours Are: Mon., Tues., Wed., Thurs., Fri., 7:30-4:30. Sat., 8:00-4:30



## Gaza to Long Beach

# A journey from grove to bog

Azmi Y. Shawa's interest in agriculture began in his parents' orange groves in the ancient seaport city of Gaza in Palestine, where he was born in 1924.

His odyssey in the field brought him to the U.S., then to Libya, then back to the U.S. again, where, today, he is supervisor of the Coastal Washington Research and Extension Unit in Long Beach, Wash.

The Washington facility is one of two research and experiment stations in the nation that specialize exclusively in cranberries. The other is in East Wareham, Mass.

"I went to agricultural school in Gaza," Shawa said. "Initially, I was interested in irrigation but

later switched to horticulture."

In 1949 he came to Utah State University, where he received his BA in horticulture—"as a young man I knew the U.S. was the best country in the world for agriculture."

In 1953 he received his master's degree from Colorado State University and then went to Washington State University

to work on his doctorate. After two years he had to set aside his studies because of family responsibilities.

IN 1955 SHAWA went to work for Washington State University's Irrigated Agriculture Research and Extension Center in Prosser, Wash. After two years there, he was invited by the Libyan government to do horticultural research and experimentation in that country.

"I worked on fruit trees in general," Shawa recalled. "Apple and pear trees grow in the mountain areas, where there is a cool climate. If you go down to the coast, you find a Mediterranean climate, like in

(continued on page 8)

### COVER PHOTO

A SMILING Azmi Y. Shawa, supervisor of the Coastal Washington Research and Extension Unit in Long Beach, Wash.



**ORRALING** berries in a bog in the Long Beach, Wash., area.



## PROCESSORS BUY MORE

# Fresh fruit, government sales off

Fewer cranberries were sold fresh and the government bought less, but more of the 1979 crop has ended up in the hands of processors than in the previous two years.

Those conclusions are implicit in the Feb. 1, 1980 Inventory and Handling Report of the Cranberry Marketing Committee.

From a total 1979 crop of 2,470,092 bbls, 2,377,942 bbls. were available after shrinkage, the report says. Of that amount, 243,494 bbls. were shipped fresh, the government purchased 18,642 bbls. and 2,115,806 bbls. were available for processors.

Shrinkage, which amounted to 92,150 bbls., was down from

122,239 bbls. for the '78 crop and 206,487 bbls. for the '77 crop. Shrinkage, it is apparent, bears an inverse relationship to demand, which increased from '77 to '79.

A total of 1,665,401 bbls. was on hand as of the report date. The breakdown was 1,284,296 bbls in freezers, 334,073 processed and 47,032 in the "fresh and other" category.

At March 20 and Aug. 23, 1979 meetings, the Cranberry Marketing Committee estimated the 1979 crop at 2,432,500 bbls. and 2,502,500 bbls. respectively. Actual production came close to an average of these two estimates, notes Charles F. Hastings Jr., marketing committee manager.

A scientific evaluation by the USDA resulted in an estimate of 2,485,500 bbls.

The 1979 crop by state was: Massachusetts, 1,079,015 bbls.; New Jersey, 253,275; Oregon, 93,961; Washington, 146,010; Wisconsin, 897,831.

The 1979 total crop of 2,470,092 compares to 2,451,386 for 1978 and 2,092,665 for 1977.

Fresh fruit shipments for the three years were: 1979, 243,494 bbls.; 1978, 291,636; 1977, 317,300.

Whereas the government purchased 18,642 barrels in 1979, it bought 48,750 in 1978 and 46,503 in 1977.

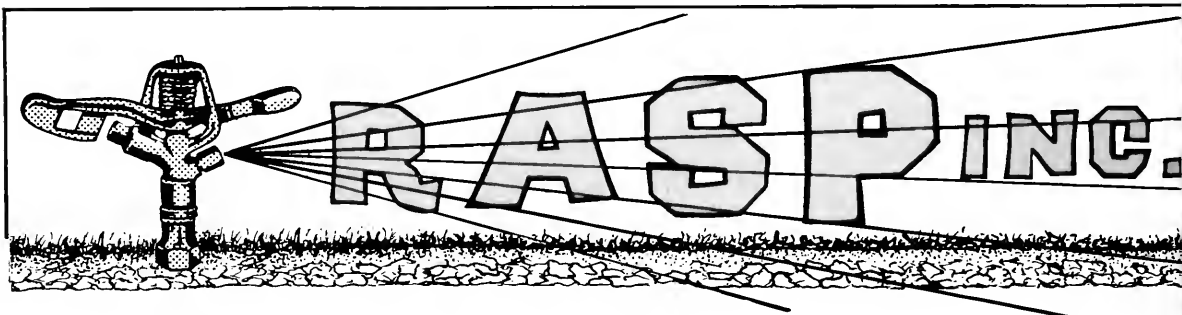
The amounts available for processors were: 1979, 2,115,806 bbls.; 1978, 1,988,761; 1977, 1,522,375.

## OBSERVER WANTED

The Bandon, Ore., area could use a volunteer weather observer, says Arthur Poole, Coos County Extension Agent.

The task of observing was performed last year by Dave and Jeanette Brooks at their farm 3½ mile south of Bandon. The couple can't continue as observers this year.

Their observations helped warn growers of potential heat and frost dangers, Poole notes.



**AUTHORIZED AGWAY REPRESENTATIVE**

**LICENSED SPRAYING OF PESTICIDES (Seasonal)**

**WITH A COMPLETE LINE OF:**

**CRANBERRY INSECTICIDES • FUNGICIDES  
HERBICIDES • MITICIDES • and FERTILIZERS  
IN STOCK!**

**ROBERT A. ALBERGHINI — SPRAYING  
RFD 5 PLYMOUTH STREET, CARVER, MASS. 02330  
TELEPHONE: 866-4429**

For further information, call evenings after 5:30

AGWAY

AGWAY

# Bugs



# editorial



Dr. Chester E. Cross, director of the Massachusetts Cranberry Experiment Station, issued some good advice in a recent station newsletter.

Said Cross: "Farms used to be spacious and isolated patches of human activity in what was called the rural environment. Increasing numbers of people have been leaving the urban centers to live in the less congested rural areas. Farmers now have more and nearer neighbors than formerly, and with this change comes a need for understanding and accomodation concerning environmental matters."

He added: "It is imperative, as thoughtful farmers everywhere agree, that cranberry growers in conducting their highly technological operation obey the rules and regulations that have made possible the approval and registration of their agrichemical operations."

## Price hike essential

Yes, CRANBERRIES will have to change its longtime position of holding the line and will have to move upwards a couple of steps on the ladder of crazily escalating prices.

Not since 1971 has CRANBERRIES undergone a price change. Starting with the July issue, the annual subscription rate will increase from \$5 a year to \$8 and from \$9 for two years to \$15. Advertising rates also must go up and the new rates will be announced shortly.

The price hikes must be made in order to be able to deal with wildly increasing costs. There's no need to go into a litany here about those costs. You know what the impact of inflation has been on your own business, your home, your local government.

## Blueberry news

We've received several requests to carry some blueberry news, particularly from New Jersey cranberry growers, many of whom grow both cranberries and blueberries.

In acceding to that request, we're carrying in this issue a report by New Jersey correspondent Mary E. Archibald on an annual blueberry conference. Besides the obvious interest to farmers who grow both crops, we feel that some blueberry news may interest cranberry growers because of the strong similarity between the two berries.



LOST: MARRIOTT INN,  
ORLANDO, FLA. LADY'S  
DIAMOND ENGAGEMENT  
RING. \$200 REWARD.  
WRITE CRANBERRIES.

## CRANBERRIES



THE NATIONAL CRANBERRY  
MAGAZINE

—Our 44th Year of Publication—

VOLUME 44—No. 5  
May 1980

Send correspondence to:

P.O. Box 249  
Cobalt CT 06414

Phone: (203) 342-4730

Bob Taylor, Publisher/Editor

### ADVISORS, CORRESPONDENTS

Massachusetts—Dr. Chester E. Cross, Director, Massachusetts Cranberry Experiment Station; Irving Demoranville, Extension Cranberry Specialist, Massachusetts Cranberry Station; Michael Couture, East Wareham, Mass.

New Jersey—Philip E. Marucci, Cranberry and Blueberry Specialist, Cranberry and Blueberry Laboratory, Chatsworth, N.J.; Mary E. Archibald, Collingswood, N.J.

Nova Scotia—I.V. Hall, botanist, Research Station, Kentville, N.S.

Oregon—Arthur Poole, Coos County Extension Agent, Coquille, Ore.

Washington—Azmi Y. Shawa, Associate Horticulturist and Extension Agent in Horticulture, Extension Unit, Long Beach, Wash.

Wisconsin—Vernon Goldsworthy, Eagle River, Wisc.; Tod D. Planer, Farm Management Agent, Wood County, Wisc.; Joan E. Humphrey, Friendship, Wisc.

CRANBERRIES is published monthly by the Taylor Publishing Co., Wellwyn Drive, Portland CT 06480. Second class postage is paid at the Portland, Conn., Post Office. Price is \$5 a year, 75 cents a copy in U.S.; Canada, \$6 a year; all other countries, \$8 a year. Copyright 1980 by Taylor Publishing.

ISSN: 0011-0787

## SANDOZ REORGANIZES ITS SALES DEPARTMENT

A major revamping of the sales department of Sandoz, Inc., Crop Protection, of San Diego has been announced by Dr. Zenas B. Noon, vice president.

Andy White has been named eastern regional manager and Robert S. Clayton has been named western regional manager. Both men have been with the crop protection company for about seven years.

"We have undertaken this reorganization to give increased

emphasis to improving our service to distributors throughout both regions," Noon said. "By splitting our national sales team into two major regions, each under the control of an experienced individual, we believe we can put more muscle into our entire sales operation."

White is a graduate of Texas A&M University. He is a member of the Entomological Society of America, the American Registry of Certified Entomologists and the Weed Science Society of America.

Clayton is a graduate of Arizona State University. He is a member of the Entomological Society of America,

the American Registry of Certified Entomologists and the Arizona Agricultural Chemical Assn.

Sandoz manufactures a wide range of pesticides, including Evital, a herbicide for cranberries.

Stay Informed  
Read CRANBERRIES

# DIRECTORY for Cranberry Growers

## The CHARLES W. HARRIS Company

451 Old Somerset Avenue  
North Dighton, Mass.  
Phone 824-5607

AMES  
Irrigation Systems  
RAIN BIRD  
Sprinklers  
HALE  
Pumps

Highest Quality Products  
with Satisfaction Guaranteed

## BARK RIVER *Culvert and Equipment Co.*

(Wisconsin-Michigan Growers)

ALUMINUM HEADGATES FABRICATED  
TO YOUR SPECIFICATIONS

HAND WHEEL OPERATED GATES

ALUMINUM CORRUGATED PIPE

INTERNATIONAL POWER UNITS

INTERNATIONAL CRAWLER TRACTORS

WARNER & SWASEY EXCAVATORS

WALDON LOADERS AND USED EQUIPMENT

Eau Claire, Wis.  
715-835-5157

Escanaba, Mich.  
906-786-6920

Milwaukee, Wis.  
414-461-5440

Madison, Wis.  
608-222-4151

Green Bay, Wis.  
414-435-6676

Ironwood, Mich.  
906-932-0222

**INTERNATIONAL CONSTRUCTION EQUIPMENT**  
INTERNATIONAL HARVESTER COMPANY

Office  
295-2222

## BEATON'S CRANBERRY GROWERS SERVICE

K. Beaton  
295-2207

D. Beaton  
888-1288

  
WAREHAM, MASS.

P. Beaton  
947-3601

Specializing in

- DITCHING
- NETTING
- SANDING
- WEED CLIPPING
- COMPLETE BOG MANAGEMENT
- HARVESTING (Wet and Dry)

Also

Complete line of portable Crisafulli Pumps 2" - 16"  
Plastic netting for suction boxes

## Farm Credit Service

Box 7, Taunton, Mass. 02781  
Tel. 617-824-7578

•  
PRODUCTION CREDIT LOANS  
LAND BANK MORTGAGES

Office - on Route 44  
1/4 Mile West of Rt. 24

# Grow new vines quickly

By MALCOLM N. DANA

Department of Horticulture,  
University of Wisconsin/Madison

In the May 1967 issue of

CRANBERRIES appeared an article I wrote in which I suggested that growers use "mist treatment" to hasten the establishment of new cranberry plantings.

A year after that article appeared, the cranberry industry underwent a self-imposed restriction on new planting. Eleven years later, in 1979, a few new acres were planted and there are plans to plant more acres in 1980. Therefore, it is now timely to call attention again to the possibility of speeding rooting and growth of cuttings by careful management of water and fertilizer.

A NEWLY PLANTED cranberry cutting is a living stem stuck into

sand or peat in a very haphazard fashion. Some will be right end up and some will be bottom end up. Some will be pressed in more or less vertically and others will be near horizontal.

Characteristic of all cuttings is that they have no root system and that most are not well placed into soil moisture contact. With the leaves still intact, these cuttings are exposed to moisture stress or drought until the root system forms and starts absorption. The internal stress will be especially high on warm, breezy days under a bright sun when water loss is rapid. These periods of moisture stress delay the initiation of roots and the emergence of shoots.

**THE RATE OF** moisture loss from a leaf surface is in direct relation to the relative humidity and temperature of the air surrounding the leaf. A high

temperature of the leaf with low relative humidity outside the leaf maximizes water loss (transpiration).

A high leaf temperature activates water molecules inside the leaf. With random movement many molecules escape through openings in the leaf surface (stomates, breaks in the cuticle, mechanical injury). With a low relative humidity outside the leaf, there is little opportunity for random molecules to move back into the plant to replace those which are lost.

The difference in activity (vapor pressure) within the leaf versus that outside the leaf is called the vapor pressure deficit. Water molecules move from the zone of high vapor pressure (inside) to that of low vapor pressure (outside).

(continued on page 10)



It's not too late to protect your crop. Contact the number one crop hail insurer in Wisconsin -- The Rural Companies -- for a competitive quote. We provide the service you expect!

HOME OFFICE:  
7010 Mineral Point Road  
P.O. Box 5555  
Madison, WI 53705

**the**  
**rural**  
**companies**  
farm bureau insurance

## A JOURNEY . . .

(continued from page 3)  
southern California. In the interior, it is very hot. There you find peaches and all other kinds of fruit.

"One of the things I did was to introduce different varieties. Not many years away from independence from Italy, Libya at the time was in need of all kinds of outside help."

Shawa worked in Libya two years. He then returned to Prosser for a year, and, in 1960, went to the cranberry station in Long Beach, where he has been since.

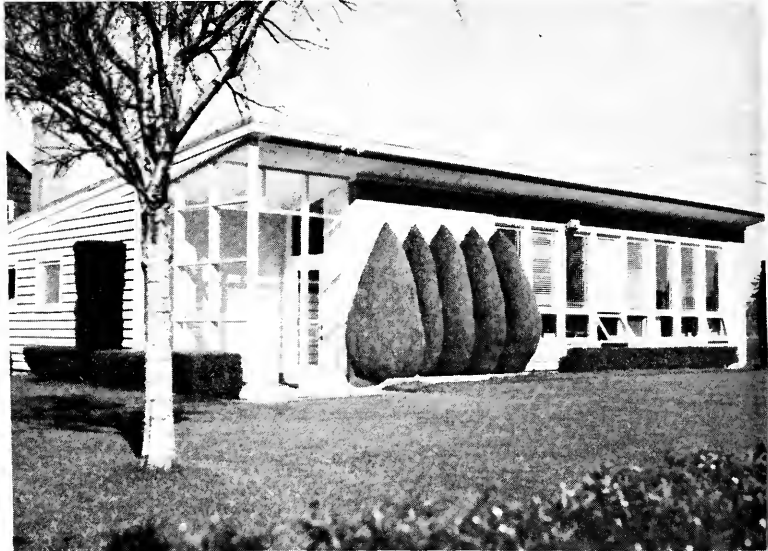
Charles Doughty was supervisor when Shawa arrived. In '65 Doughty was transferred to a Washington U. research center in Puyallup and Shawa became the third head of the station.

The first supervisor, from 1923-54, was J.D. Crowley, the

gifted plant pathologist who gave a major impetus to cranberry growing in the state by introducing the sprinkler system for frost protection.

**THE LONG BEACH** station, which is part of

Washington State University (Shawa is a faculty member), is a small one compared to the Massachusetts station. Besides Shawa, the staff consists of his assistant, John Wang, a secretary, Edie Shire, and a



**THE COASTAL** Washington Research and Extension Unit main building, which contains office, library and laboratory.

**A MOST COMPLETE INVENTORY OF  
IRRIGATION ACCESSORIES**



# LARCHMONT

ENGINEERING & IRRIGATION, INC.

P.O. Box 66, 11 Larchmont Lane, Lexington, MA 02173 (617) 862-2550

**IRRIGATION EQUIPMENT DESIGNED ESPECIALLY  
FOR THE CRANBERRY INDUSTRY**

— FOR EXAMPLE: —

*Gorman-Rupp Self Priming Electric Sprinkler Pumps*  
*Proven Quick Couple Riser*  
*Ingersoll-Rand Water Harvest Pumps*  
*Aluminum Insert Coupling For 4" Poly Pipe*

Contact:

Larchmont Engineering  
Phil Tropeano, President  
(617) 862-2550 (Call Collect)



Contact:

Bill Stearns, Plymouth, Mass.  
(617) 746-6048  
(617) 746-2610



farm laborer, Peggy Clausing. During springtime and for the harvest, one or two more laborers are hired.

Experimental bogs at the station cover 7 acres.

Despite its small size, Shawa believes the station has had a significant impact on making Washington bogs the highest producing per capita in the nation.

Cranberries are grown in Washington in two areas, Long Beach, with more than 400 acres, and Grayland, with more than 750 acres.

Ninety nine percent of the cranberries grown in the state are McFarlin, Shawa notes. There is a little Crowley, named after the former station supervisor, and Stevens was introduced recently.

Shawa's current principal interest is in experiments that he anticipates will lead to bogs with optimum production in four to five years instead of the present eight to 10 years after planting.

**SHAWA TAKES** busman's holidays. In 1967, he acquired five acres of bog and they eat up most of his spare time. They've even cancelled out the salmon fishing he used to do in an area famous for the briny rattler.

He also enjoys traveling and, three years ago, he and the family visited Egypt, Saudi Arabia, Jordan, Greece and England. One of the main subjects of the trip was the stay made in Gaza, where he still has many relatives.

Shawa also combines vacations and work by engaging in sightseeing with the family during trips to horticultural meetings.

Other hobbies include clam digging, swimming, Arabian

cooking and photography.

He and Mrs. Shawa have three children. A son, 23, is a senior in agricultural economics at Washington State University.

A daughter, 20, is studying piano and voice at Pacific Lutheran University. And another daughter, 13, is an 8th grader in Long Beach, where the Shawa's have their home.



**DRY** picking in the Grayland-North Beach, Wash., area.

**CERTIFICATE FOR NOT MORE THAN 100,000 SHARES**

**STOCKS & BONDS**  
have been our business for over 45 years.  
We are easy to reach.  
Call us for what YOU need to know.

**Gage-Wiley & Co., Inc.**  
40 Court Street, Plymouth, Mass. 02361  
**617-746-3322** Call Toll Free in Mass. **1-800-242-0263**

**CERTIFICATE FOR NOT MORE THAN 100,000 SHARES**

## GROW NEW VINES . . .

(continued from page 7)

**SPRINKLER** irrigation gives the grower the opportunity to modify the vapor pressure deficit to the advantage of the plant. Water evaporation from the plant and soil surfaces lowers the temperature of the leaf and the micro-environment surrounding the cutting.

Evaporation also increases the relative humidity outside the cutting and thus reduces the vapor deficit. Thus the cutting loses less moisture than it would have without this climate modification. The irrigation also maintains soil moisture for absorption by the rootless cutting.

The success of this approach to management of new plantings was clearly demonstrated by Mr. Amundsen in Babcock, Wisc., in the summer of 1966. In 1979, with the revival of interest in planting cranberries, Mr. Gottschalk in Cranmoor applied the procedure with tremendous success. Bob turned on his sprinklers for a half hour in the morning and a second time in midafternoon on any day when rain did not interfere.

This regimen started immediately after planting and continued until mid-August when a luxuriant vine growth covered the entire field. At that time, the frequency of irrigation was reduced to that necessary to provide soil moisture for continued growth. The sprinkler nozzles were those used for frost protection calibrated to apply approximately 0.1 inch of water per hour.

**MOST NEW PLANTINGS** of cranberries in Wisconsin are established in sand—either on sand marshes or on sand hauled in to cover peat and muck soils with a 3 inch layer. In either case, the cuttings are rooting in a soil that is very deficient in nitrogen.

To ask that the vines grow under these conditions is folly. Likewise, to ask that they grow

with only phosphorous and potassium and the nitrate form of nitrogen is also folly. It has been clearly demonstrated experimentally and in field uses that Wisconsin cranberries respond quickly and preferentially to ammonium nitrogen. With this in mind, Bob Gottschalk applied ammonium sulfate through the sprinkler system according to the following schedule:

Week of June 1—8 lbs/A

Week of June 8—15 lbs/A

Week of June 15—50 lbs/A

Each week from June 22-Aug. 15—50 lbs/A

**THE AMMONIUM** supplementation is critical to gain the best response. The vines really eat up the fertilizer and grow with enthusiasm and vigor. There is no reason for Wisconsin growers to wait 4-8 years to get a planting established and productive. It should be productive in three years.

There is little doubt that Mr. Gottschalk was applying more nitrogen than the plants could use.

However, with this high rate of use no injury developed and vegetative growth continued well into the autumn months.

## INDIAN TRIBE'S SALES DOUBLE EXPECTATIONS

An Indian tribe from Turtle Lake in northern Wisconsin reports that a cranberry marsh it revived yielded 3,900 barrels last fall.

Receipts from its sale of the barrels to Ocean Spray Cranberries Inc. amounted to \$99,500, twice what was anticipated before the enterprise started.

The 28½ acre marsh, operated by Lac Courte Oreilles Tribal Council, had been neglected for several years.

The Indians have asked a local community development corporation for management assistance, including the training of an Indian who will eventually assume management of the marsh.

Ocean Spray paid the Indians \$25.49 a barrel.

## EARLY BERRY SHIPMENT

Fifty barrels of cranberries, from northern Wisconsin and Minnesota, were shipped to St. Louis via Chicago in December 1854.

---

# DEVIRINOL<sup>®</sup> 10-G

AVAILABLE AT THESE STORES:

Robert Alberghini  
Carver, MA  
617-866-4429

New Bedford Agway  
New Bedford, MA  
617-997-0093

Cape Agricultural Supply Inc.  
Sandwich, MA  
617-888-0044

Devirinol is a registered trademark of Stauffer  
Chemical Co.

Pilgrim Agricultural Supply Inc.  
Plymouth, MA  
617-746-0970

Merle Stetson  
E. Taunton, MA  
617-822-6748



Nutgrass



Rice cutgrass



# Control nutgrass and cutgrass without harming your vines. Use Devrinol.<sup>®</sup>

Selective Herbicide

**Massachusetts cranberry growers**, you can control both nutgrass and rice cutgrass without harming your vines.

Use Devrinol<sup>®</sup> herbicide. Devrinol gives excellent control of these tough weeds with good crop tolerance.

Apply Devrinol 10-G in the spring, before weeds begin to grow. Or, you can apply Devrinol in the fall, after harvest.

Control nutgrass and cutgrass without harming your vines. See your Stauffer supplier for Devrinol. For use in Massachusetts only. Always follow label directions carefully. Stauffer Chemical Company, Agricultural Chemical Division, Westport, Connecticut 06880.

 **Devrinol<sup>®</sup>**



## Scientists talk about stem canker

By MARY E. ARCHIBALD

Some highlights of the Annual Blueberry Open House held recently in Hammonton, N.J., were talks on stem canker disease of blueberry, the red-banded leafroller and insecticides to control it, investigating the commercial feasibility of exporting fresh blueberries to Europe on container ships and a proposed plan to permit blueberry and cranberry growing on state-owned land on a rental basis.

Also, there was an estimate of the blueberry crop for New Jersey and the U.S., a progress report on blueberry culture research, comments on bird control, a progress report on breeding new varieties of blueberries and a discussion of the myth of the superiority of southern bee hives for blueberry pollination.

**ALTHOUGH THE DESTRUCTIVE** stem canker disease of blueberries has not been a problem in New Jersey for some time, there are indications of its presence, according to Dr. Allan W. Stretch, USDA plant pathologist at the Rutgers University Cranberry and Blueberry Research Laboratory in Oswego.

This fungus gets into the plant's stem and attacks only one year old canes or growth produced in a given growing year, Dr. Stretch said.

There are varieties resistant to stem canker and these are Crabbe 4, Murphy, Angola, Croatan, Wolcott, Atlantic and Jersey. Jersey is the resistant variety currently available in New Jersey.

Cabot, Concord, June, Dixie, Weymouth, Bluecrop and Pioneer are susceptible and those growers who have plantings of Concord were advised to inform Rutgers personnel because these blueberries probably have the disease.

To control the fungus under New Jersey conditions, pruning of the diseased stem is desirable. Chemical treatments are considered useless.

A survey of New Jersey blueberry fields for stem canker was initiated late this winter, according to Don De Blois

of the N.J. Department of Agriculture. In each field, groups of plants from various parts of the field were selected. In 20 fields, 2,100 plants were inspected and 1,073 of them had some degree of canker.

Canker is considered to be present if there is one or many cankers. In 20 fields, two had no canker. Five varieties—Weymouth, Berkeley, Bluecrop, Collins and Bluejay—were checked. In nine fields of Weymouth, eight showed canker. Four of five fields of Berkeley showed canker as well as all of the Bluecrop.

**IN DISCUSSING** the red-banded leafroller—a very serious threat to blueberries—and some proven insecticides for use on blueberries, Philip Marucci of the Rutgers Cranberry and Blueberry Research Lab, said it is important for growers to use the right insecticide at the right times and to apply the materials properly.

"There have been destructive outbreaks of the red-banded leafroller in New Jersey sporadically," he said, and much of this is due to lack of thoroughness in airplane spraying. Where insects are treated with a sublethal dose, he added, the development of resistance is accelerated.

A few fields in Atlantic County had heavy infestations in 1979, which severely downgraded the quality of blueberries.

To control the leafroller, growers need to improve the timing for spraying and be more thorough in coverage, Professor Marucci said.

"By early April the larvae are hatching, during the flowering period when insecticides cannot be used," he said. "The growers need to cooperate with beekeepers. They

should remove beehives earlier in order to begin spraying earlier."

The leafroller is low flying and causes the most damage within 2 feet of the ground, where airplane spraying is least effective.

On small plot tests with insecticides, Guthion was found to give only a 36 percent reduction of large, webbed-up leafrollers, he said, while Orthene gave a 69 percent decrease. Much better results are obtained when spraying is started earlier, before the leafrollers form thick protective webbings.

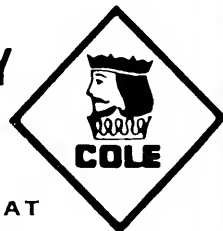
"Imdian is a newly labeled insecticide which now can be used on blueberries," Marucci said. "It is safer to use than Guthion and can do anything Guthion can do. Malathion is good for the blueberry maggot on blueberries and is good on aphids but that is all. When growers switch to Malathion to control aphids, leafroller populations may soar."

Lannate has been found to be good on leafrollers, maggots and blossom weevils and should be labeled in 198 the professor explained.

**IN A PROGRESS** report on blueberry culture research, Dr. Paul Eck of Rutgers University said that fertil studies at the Rutgers experimental station showed that plants need to receive potassium even though they are acid-loving. The potassium also must be fed over a number of years and this results in increased berry size. At this time, it is not clear what the optimum level of potassium is, Dr. Eck said.

Michael J. Ceponis of USDA told of tests which he and Dr. Ray Cappellini of Rutgers conducted to extend the shelf life of blueberries. A first picking of Bluecrop was shipped to the USDA research station

## WISCONSIN CRANBERRY HEADQUARTERS FOR



EVITAL • SOLO • DIQUAT  
2-4-D • DOWPON • ETHREL  
SEVIN • PARATHION • GUTHION • DIAZINON  
KOCIDE • DIFOLITAN • FERBAM  
COPPER SULFATE • PRINCEP

## Cole Chemical Supply

DIVISION OF *Hopkins* AGRICULTURAL CHEMICAL CO  
P.O. BOX 7211, MADISON, WISCONSIN 53707  
608-221-1581



Rotterdam, Holland. Important in this case were pre-cooling and storing in a modified atmosphere. The berries were there three days at 8 degrees F and 16 days at 37 degrees

It is believed the shelf life of berries can be extended if they are re-cooled rapidly and refrigerated at temperature under 40. The berries arrived in Belgium in a very satisfactory condition and would have been suitable for the fresh market.

Richard Chumney of the N.J. Department of Agriculture said that farmers interested in growing blueberries and cranberries on a particular block of state-owned land on a rental basis should get in touch with the department. The Pinelands Commission, the agriculture department and the Department of Environmental Protection are developing an "identity" for the growing area as a whole.

Because of the recently enacted Farmland Preservation Act, the state is interested in developing land use techniques and stabilizing land use for New Jersey agriculture. Not only should blueberry and cranberry production be improved but should be expanded, Chumney said.

**DR. ERIC G. STONE** of the Rutgers Cranberry and Blueberry Research Lab said breeding is being done in an effort to find a higher yielding variety and consistent producer as well as an early variety. Approximately 100 crosses were made from varieties both old and new.

Each seedling is different and it will be 1984-85 before a plant selection can be made, Dr. Stone said. Some time will need to elapse after that before a determination may be made as to its usefulness as a variety, he added.

Discussing the relative merits of northern versus southern bees, Jack Matthenius, supervisor of bee inspecting, NJDA, said a colony of bees is only as good as the beekeeper where the bees are kept. A bee colony could be wintered over in a climate similar to the one where the grower lives, Matthenius added.

Mike Flint of the N.J. Crop Reporting Service said the national blueberry crop for 1979 was 92.3 million lbs. New Jersey averages 23.4 million lbs. and three-quarters of this for the fresh market.

Subscribe to CRANBERRIES  
Still Only \$5 a Year



## MASSACHUSETTS

March was colder than normal, averaging 1.7 degrees a day on the minus side. Maximum temperature was 52 degrees on the 23rd and 24th and minimum 4 degrees on the 1st. There were no days when the

temperature went below zero this winter. Warmer than average days occurred on only the 18th, 23rd, 24th and 29th. Cooler than average

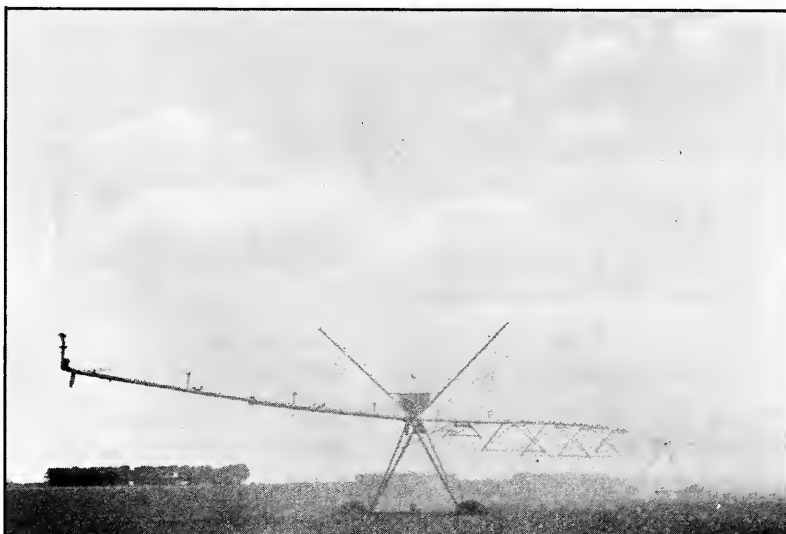
periods were on the 1st-3rd, 12th-15th and 25th.

Precipitation totaled 5.99 inches or about 1 1/4 inches above normal. This was the wettest March since 1968. There was measurable precipitation on 14 days with 1.87 inches on the 17-18th as the greatest storm. We are 3 1/2 inches below normal for the three month period due to the dry January and February, and are running about 9 inches behind 1979 to date.

Snowfall amounted to only .7 inch, far below normal for us, but 1 inch or less of snow in March occurs on the average of one year out of five. Total snow for the winter was less than 7 inches, which is a record low, breaking the previous record set in 1934-35.

There is a disturbing amount of

(continued on page 14)



## Straight talk about financing irrigation equipment



Farming is  
everybody's bread  
& butter.

Choosing a lender to finance irrigation equipment is nearly as important as choosing the equipment itself.

Look to a lender who understands agriculture and your area. Who understands the potential return from irrigated land and the kind of money it takes to do an irrigation job right.

Look for equipment financing where you pay interest only on the exact amount of money you borrow and only for the number of days you actually use it.

Look to Production Credit Association.

Production Credit Associations of Wisconsin

## WEATHER WATCH . . .

(continued from page 13)

winterkill showing up, due mainly to a short supply of water for the winter flood and lack of snow cover. The injury probably happened either the first few days of February or at the end of February and very possibly at both periods. It's too early to be sure of the magnitude of injury but possibly as much as 50,000 barrels were lost.

I.E.D.

### NOVA SCOTIA

The mean temperature for February was -1.9 degrees C compared with the 50 year average of -1.4. Precipitation for the month consisted of 90 mm of rain and 24.2 cm of snow.

I.V.H.

### WASHINGTON

Rainfall totaled 6.61 inches, which is 2.29 inches below the normal for March. There was measurable precipitation on all but three days, with 1.11 inches on the 13th as the greatest storm.

The maximum temperature of 62 degrees came on the 3rd and the minimum of 31 degrees occurred on the 25th. Fifteen days recorded below the average of 51.42 mean high for the month. Spring was trying hard to show its worth both on the bog and the surrounding area, but the cool temperature prevailed.

A.Y.S.

### WISCONSIN

Temperatures in March averaged about 1.5 degrees below normal due to colder weather in the first half of the month. Precipitation totaled nearly 1 inch compared with a normal amount of 1.8 inches for March. Snowfall during the month averaged close to the normal total of 9 inches, but there were no heavy rains. Despite deep, hard frost in the ground, there was very little runoff in March because of the winter's light snow cover and the absence of heavy rains.

Temperatures in the first week of April were above normal as high readings were in the 50's and 60's. A complex storm system on April 7 through 9 brought severe rain and snow to Wisconsin. A little land preparation for spring planting had started during the nice weather in early April, but the rain and snow

on the 7th, 8th and 9th stopped field activities.

Farmers appreciated the relatively mild weather during the past winter in contrast to the previous three winters which were very cold. Temperatures during the winter months of November through March averaged near normal. This was the first time since the winter of 1975-76 that temperatures were not below normal.

On April 14 an intense storm brought 2 to 4 inches of wet snow to southern and eastern areas. High temperatures were in the 30's on Monday but reached the 70's and 80's on April 20.

-Wisconsin Agriculture Reporting Service



## Massachusetts

By IRVING E. DEMORANVILLE

As of April 1 there are 4 points of a possible 10 favoring good keeping in the 1980 Massachusetts cranberry crop. A year ago, we had only 1 point. We therefore predict that this year's crop will be one of good keeping quality.

This, of course, does not mean that each grower will have comparative good quality, but that some bogs with a reputation for producing tender fruit or that those bogs that have received heavy fertilizer applications, should probably be singled out for fungicide treatment.

Some fungicides are in short supply and growers are urged to place orders early. With a bright market prospect, it is not good business to lose berries to fruit rot.

\* \* \* \*

Below are the stations, places, AM and FM locations on the dial and times for the Cranberry Frost Warning Service:

WEEL, Boston, 590k, 103.9 mg.

**CORRUGATED  
CULVERT PIPE  
and  
FLOW GATES**

Aluminum - Galvanized  
Asphalt Coated

**Felker Bros.  
Corp.**

**MARSHFIELD WISCONSIN**

**Area 715 384-3121**

## Niemi Electric Co.

ROBERT NIEMI

**ELECTRICAL CONTRACTORS**

**HEAT, LIGHT and POWER WIRING**

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL

TEL. 295-1880

Robert Niemi Pinehurst Dr.

Wareham, Mass.



2 and 9 p.m.; WBZ, Boston, 1030k, 92.9 mg, 2 and 9 p.m.; WPLM, Plymouth, 1390k, 99.1 mg, 2:30 and 9:30 p.m.; WOXB, West Yarmouth, 1240k, 94.3 mg, 2 and 9 p.m.; WBSM, New Bedford, 1420k, 97.3 mg, 3:30 and 9 p.m.

## Wisconsin

By VERNON GOLDSWORTHY

Most of the growers in Wisconsin are in pretty good shape and looking forward to a good year. The vines seem to have wintered well and there is no injury that I know of from lack of oxygen caused by winter killing.

## OBITUARY

### MRS. ERNEST L. EATON

Mrs. Ernest L. Eaton, 85, of Upper Canard, Kings County, Nova Scotia, whose husband formerly was in charge of cranberry research at the Kentville, Nova Scotia, Research Station, died recently in Hants Community Hospital, Windsor.

Born in Williamsburg, Ont., she was the former Ellen Steckle, daughter of the late Henry and Lydia (Shantz) Steckle.

Surviving are her husband of The Elms, Windsor; two daughters, Eunice (Mrs. Earl Wonnacott), Charlottetown; Margaret (Mrs. William Berry), Burlington, Ont.; three sons, Dr. George, cranberry expert at the University of British Columbia,

## CRANBERRY GROWERS REALTY

Listings of buyers and sellers welcomed on cranberry acreage and upland.

Appraisals

**DOUGLAS R. BEATON**

E. Sandwich, Mass.  
02537

(617) 888-1288

Ernest, Wingham, Ont., and Roger, Charlottetown; two sisters, Ada Steckle and Edna (Mrs. Albert Ludolph), both of Kitchener, Ont. Funeral services were held in the Upper Canard United Church, with the Rev. Russell MacLeod officiating. Burial was in Upper Canard Cemetery.



### BREAKFAST TWIST

- 1 package (13¼ ounces) hot roll mix
- ¼ cup melted butter or margarine
- ½ cup chopped nuts
- ½ cup sugar
- 1 teaspoon ground cinnamon
- 2 cups fresh cranberries, rinsed and drained
- 1 egg, beaten

### 1 cup confectioners' sugar Cranberry juice cocktail

Prepare hot roll mix according to package directions; let dough rise. Punch down dough and roll out on lightly floured board into a 15 X 10 inch rectangle. Brush dough with melted butter; sprinkle with nuts, sugar, cinammon and cranberries.

Roll up like a jelly roll, starting at the 15 inch side. Put roll, seam side down, on a well greased cookie sheet. Twist roll into a spiral.

Brush top of roll with beaten egg and let rise until twice its original size. Bake in moderate oven (350 degrees F) 35 to 40 minutes or until richly browned. Mix confectioners' sugar with enough cranberry juice cocktail to make a thin glaze.

Spoon over top of bread. Garnish with additional fresh cranberries.

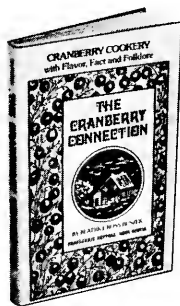
### CRANBERRY WORLD STARTS 3RD SEASON

Cranberry World, which opened for its third season April 1, will be staging a special series of cultural and outdoor musical events in conjunction with the 50th anniversary celebration of Ocean Spray Cranberries Inc., sponsors of the popular Plymouth, Mass., museum.

### The scoop of the year!

*Cranberry Flavor, Fact and Folklore in*

**THE CRANBERRY CONNECTION**, by Beatrice Buszek. Your favorite berry pops up in kitchen-tested recipes for every delight from Cranberry Bog to Cranberry-Banana Bread, Cranberry Avocado Dip, and countless other desserts, drinks, salads, entrees. "A fascinating revelation of the many uses for cranberries . . . you'll find this book a treasure."—*Des Moines Register*. Paperback, \$7.95.



Please send \_\_\_ copies of **THE CRANBERRY CONNECTION**, \$7.95 each.

Name \_\_\_\_\_

Address \_\_\_\_\_

Zip \_\_\_\_\_

Add \$1.00 for postage; Conn. residents add 7% sales tax.

**CRANBERRIES MAGAZINE**  
P. O. Box 249, Cobalt, CT 06414

# 1930 - 1980 50 YEARS OF SUCCESSFUL COMMITMENT

- To handling members' crops — all year, every year
- To developing and expanding the market for members' crops — nationally and internationally
- To generating consumer acceptance of the Ocean Spray trademark as the standard of excellence for the industry
- To increasing grower returns at a rate consistent with long-term stability and growth

Ocean Spray: the handler of choice now  
— and for the years ahead



Ocean Spray Cranberries, Inc., Plymouth, MA 02860



# CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

Vol. 44, No. 6

June 1980



**Public rep vote . . . 3**

★★★★★

**Cranberry rot . . . 6**

Library UMass  
Serials Section  
Amherst MA 01002



**We carry a complete inventory  
of CRANBERRY  
insecticides, fungicides,  
fertilizers and herbicides**



**YOUR YEAR-ROUND SERVICE CENTER**

**CRANBERRY HIGHWAY\*WEST WAREHAM, MASSACHUSETTS 02576\* (617) 295-1553**

## Interview proposal hit

# Committee split on public member post

Disagreement exists in the Cranberry Marketing Committee over the method of selecting a public member and alternate for the body, CRANBERRIES has learned.

Present plans call for five of the nine candidates for the posts to be interviewed at the committee's annual meeting Aug. 20 and 21 at the Governor Carver Inn in Plymouth, Mass.

One source, who did not wish his name to be used, called the proposed selection method

"degrading."

"These people aren't being hired," he said. "They're volunteers and the process is

DR. ALLAN STRETCH with one of the many experimental trays with which he is working at the cranberry and blueberry station in Oswego, N.J.

Story on page 6.

(CRANBERRIES photo by Mary E. Archibald)

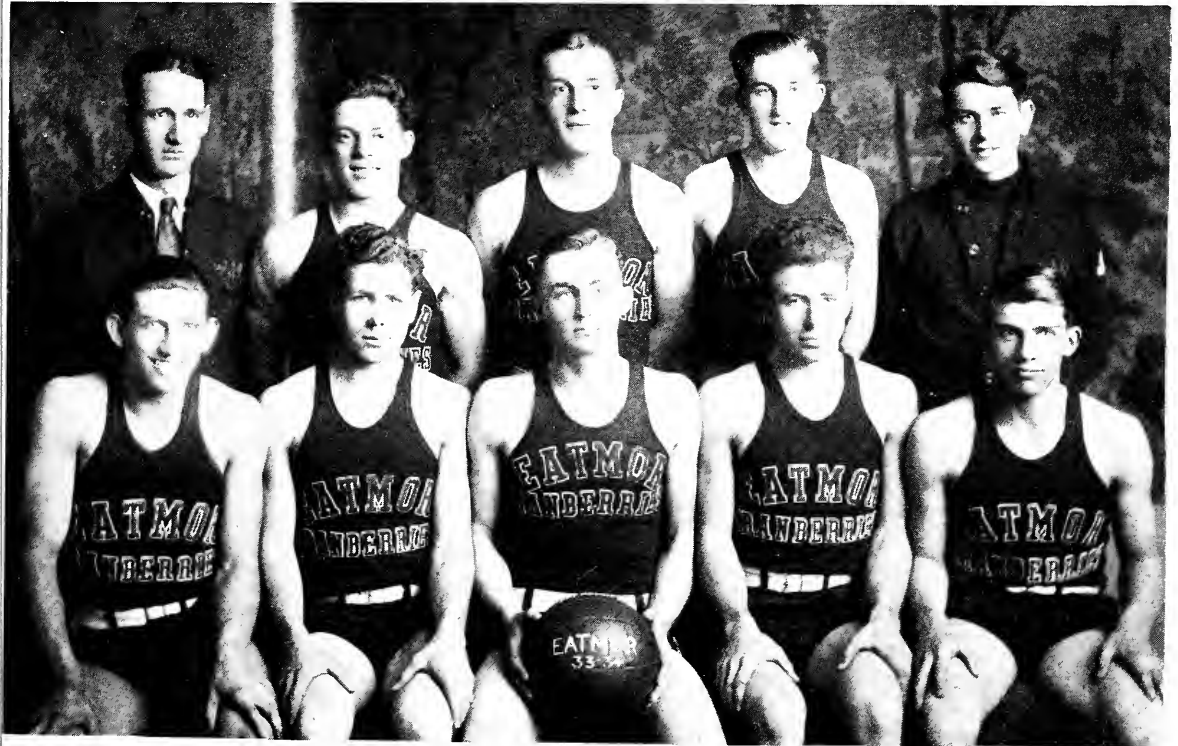
likely to scare them off."

The candidates include one state assistant secretary of agriculture, several college professors and a member of a marketing committee in another field of agriculture. The public member and alternate are unpaid positions.

Opposition to the very concept of a public member is thought to be part of the reason for the delay in selection.

"Call it fear of the unknown,"

(continued on page 14)



**EAT YOUR HEART OUT NBA:** These hoopsters with plenty of bounce to the ounce were members of the 1933-34 Eatmor Cranberries basketball team sponsored by the Wisconsin Cranberry Sales Co. Standing, l. to r.: A.A. Lattimer, Robert Sloan, Cleo Cook, James Olson, Theodore Olson. Sitting: Claude Strozewski, Russ Potter, Dick Jensen, Ben Potter, Robert Strozewski.

(Photo courtesy of Vernon Goldsworthy)



## Court rules for grower

Sawyer County's William D. Zawistowski has been fighting since 1973 a Department of Natural Resources order that he had to obtain a permit to divert water for his cranberry marsh.

Recently the Wisconsin State Supreme Court ruled in Zawistowski's behalf, saying that he was exempted from having to first get a permit because of an 1867 "cranberry law" that applies to growers.

In effect, the court ruled that a 1935 agricultural water diversion act does not affect growers.

The court also required the state, which brought the suit, to pay \$263 in court costs.

The DNR and lakeside property owners had attempted to

stop Zawistowski from diverting water from 719 acre Lake Sissabagama for his 25 acre cranberry marsh.

## Association votes better communications

The Cape Cod Cranberry Growers Association directors voted recently to take several steps to improve communication between them and the growers.

The steps include a lengthy annual report, subcommittee reports and brief reports following board meetings.

The directors also voted to purchase attachments worth \$2,500 for a new computer that UMass will buy for Dr. Deubert; to continue sponsorship of the cranberry display at the Eastern States Exposition; to continue the equipment contest at the annual meeting; to develop a wetland ecology leaflet relating to the cranberry industry;

to deny a request by Dr. Devlin for funds to pay a lab assistant for three or four months.

Discussion but no action took place on the following matters: back up personnel for the frost warning service; fungicide and fairy ring tests in progress by Dr. Zuckerm; guest speaker and arrangements for the annual meeting.

### CRANBERRY GROWER REALTY

Listings of buyers and sellers welcomed on cranberry acreage and upland.

Appraisals

DOUGLAS R. BEATON

E. Sandwich, Mass.  
02537

(617) 888-1288



**Bog construction**

**Vine setting**

**Flumes and flume work**

**Bog sand**

**Nemasket Construction Co., Inc.**

**275 Wareham St., Wareham, Mass. 02346**

**(617) 947-1743**



# editorial



## Good news

Two administration spokesmen told the Senate Banking Committee recently that inflation is expected to be down from more than 18 percent to 10 percent by the end of the year.

La-de-da. Let's all breathe sighs of relief. What once was thought to be stupendous, colossal, unspeakable and dangerous is now thought to be a victory of sorts.

Of course, before you start to relish this "good news," realize that it is predicated on several assumptions. One is that mortgage rates will stabilize. A likelihood. Another is that energy prices will grow more slowly. The oil nations have us by the throat, so who knows? And another assumption is that there will be a resistance to pressures to stimulate the economy in order to relieve the recession. In an election year, don't bet on this one.

But let's say we do get down to 10 percent inflation. Know what that means? It means that the price you pay to repair a piece of machinery at the end of this year would double in eight years instead of only five.

Now isn't that good news?

## Actual good news

On the lighter side of the news, there was a story about a initiative that might warm the spirits of all ye who hire and fire.

It seems that San Franciscan Ambrose Smith was told by city bus authorities that at 23 he was a year too young to drive a bus. So Smith acquired a uniform and began impersonating a bus driver. He checked out buses more than 100 times, always kept impeccable schedules and always turned in a full cash box. Finally discovered by aforesaid authorities, he was first threatened with jail, then was told he could work in the garage until he became old enough to drive. With unemployment exceeding 7 percent, Smith probably was happier than he ordinarily would have been with the opportunity to realize a dream he had had since childhood to drive a city bus.



## DISEASE MANAGEMENT IS SUBJECT OF MEETING

Dr. Peter Bristow, plant pathologist at the Western Washington Research and Extension Center, will discuss research findings on twig blight in Washington and Oregon at a meeting of cranberry growers to be held June 12 at 7:30 in the Ocean Spray Conference Room in Bandon, Ore.

## CRANBERRIES



THE NATIONAL CRANBERRY  
MAGAZINE

—Our 44th Year of Publication—

VOLUME 44—No. 6  
June 1980

Send correspondence to:

P.O. Box 249  
Cobalt CT 06414

Phone: (203) 342-4730

Bob Taylor, Publisher/Editor

### ADVISORS, CORRESPONDENTS

Massachusetts—Dr. Chester E. Cross, Director, Massachusetts Cranberry Experiment Station; Irving Demoranville, Extension Cranberry Specialist, Massachusetts Cranberry Station; Michael Couture, East Wareham, Mass.

New Jersey—Philip E. Marucci, Cranberry and Blueberry Specialist, Cranberry and Blueberry Laboratory, Chatsworth, N.J.; Mary E. Archibald, Collingswood, N.J.

Nova Scotia—I.V. Hall, botanist, Research Station, Kentville, N.S.

Oregon—Arthur Poole, Coos County Extension Agent, Coquille, Ore.

Washington—Azmi Y. Shawa, Associate Horticulturist and Extension Agent in Horticulture, Extension Unit, Long Beach, Wash.

Wisconsin—Vernon Goldsworthy, Eagle River, Wisc.; Tod D. Planer, Farm Management Agent, Wood County, Wisc.; Joan E. Humphrey, Friendship, Wisc.

CRANBERRIES is published monthly by the Taylor Publishing Co., Wellwyn Drive, Portland CT 06480. Second class postage is paid at the Portland, Conn., Post Office. Price is \$5 a year, 75 cents a copy in U.S.; Canada, \$6 a year; all other countries, \$8 a year. Copyright 1980 by Taylor Publishing.

ISSN: 0011-0787

# Aircraft spraying test reveals less fruit rot

By MARY E. ARCHIBALD

A one year aircraft spraying experiment using Difolatan resulted in improved control of rot in cranberries on two large New Jersey bogs.

That's the conclusion of Dr. Allan Stretch, U.S. Department of Agriculture plant pathologist at the Rutgers University Cranberry and Blueberry Experiment Station in Oswego, N.J.

Aircraft application of Difolatan—generic name, Captafol—was approved in the summer of 1979. The Environmental Protection Agency had approved it for ground equipment use in 1974.

“BECAUSE OF the results of extensive experiments with hand application of Difolatan, begun several years ago, we knew it did a good job,” Dr. Stretch said. “And with aircraft spraying, there is excellent control.”

Tests were run at the recommended rates of three and five pounds active ingredient per acre sprayed from a plane. There were three applications. The first was applied from mid-bloom to full bloom, then two subsequent applications were made from 10 to 14 days apart.

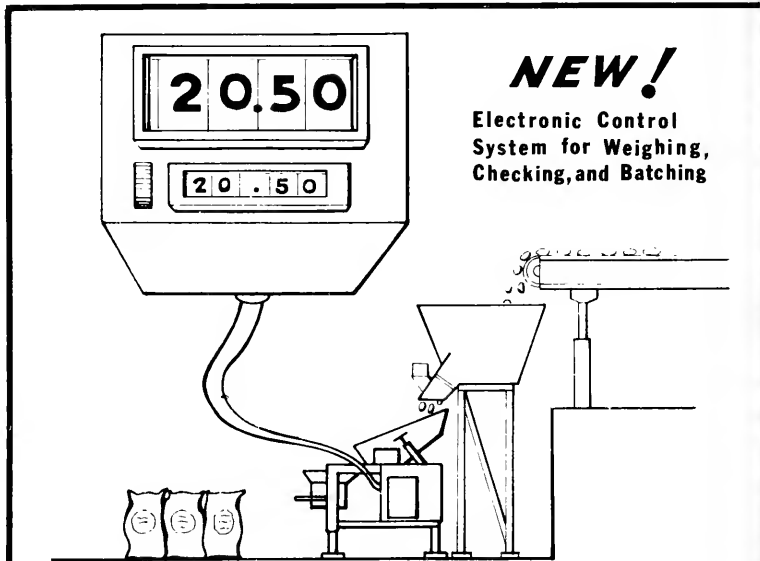
The spraying was done over a three to four week period. At the 3 lb. rate, 3.7 percent rot was recorded as compared to 17.2 percent rot in the unsprayed check area. Under similar bog conditions, the 5 lb. rate had 3.4 percent rot compared to the

unsprayed check area rot of 25.6 percent.

Field fruit rot is more severe in New Jersey than in the other cranberry growing states, a result mostly of a higher temperature.

DR. STRETCH would like to see one-application spraying of Difolatan by aircraft “because this would definitely be an energy saver.”

If the fungicide were sprayed simultaneously with insecticide, energy and labor costs would be significantly reduced, he said. He has found in experimental use that a single application—using a higher amount than is presently cleared by EPA and applied at nearly full bloom—is almost as effective in controlling rot as three applications at the 3-5 lb.



**NEW!**  
Electronic Control  
System for Weighing,  
Checking, and Batching

**FASTER MORE ACCURATE WEIGHING!**

New electronic systems designed to weigh, batch and check products from 5 to 100 pounds.

This system can be fitted to present net weighing operations or custom designed for a new weighing system.

Special features include print-out of units bagged and their weights, alarms and cutoffs and/or over and under weighing and remote read-out up to 100 feet.

Applications include bagging of produce, cat litter, grass, bird and bulk flower seeds, animal feed, powder soap and bleaches.

NATIONAL METAL PRODUCTS, INC.  
408 N. Market St.  
Lancaster, Pa. 17603  
717-392-6487

te.  
Ferbam is now the most widely used fungicide for rot control, mainly because it is least expensive and does not affect color, Dr. Stretch said. Difolatan has also been found not to affect color, but it has suffered because of a lack of availability, he added.

"There is another fungicide that controls rot better than difolatan but, unfortunately, there are side effects," Dr. Stretch explained. "One of these is that berry ripening is delayed, so that the color is inadequate for juice. The argument for Ferbam has always been that it does not affect color. Actually, Ferbam is the least effective fungicide."

Long term studies using various control compounds on the cranberry vine are conducted at the Rutgers experimental station to show long term effects on yield, size and color. This is the fifth season for the studies of some compounds.

The long term studies show that Difolatan is better than Ferbam and as good as Maneb. At the 5 lb. rate with Difolatan, there was 2½ percent rot and at the 3 lb. rate there was 4.7 percent rot. With Ferbam, used at 5.7 lbs. per acre, there was an average of 30 percent rot. With a spray there was 90 percent rot.

"With the lower rate of Difolatan application, rot control was improved six times," Dr. Stretch said. "Of course, the commercial grower does not have rot conditions duplicating these."

In the long term studies, a sample is frozen, then color extraction procedures are run. Then the color intensity of a given sample of fruit is measured. The fruit from a given area is weighed, on, for example, 40 square feet. There are 10 replications of each treatment, covering, thusly, 40 square feet.

For each treatment, the fruit is counted, weighed and analyzed.

**IN CONDUCTING** experiments using the Hovercraft at Princeton University in the 1960's, Dr. Stretch found there was no drift, making Hovercraft spraying more desirable than helicopter spraying. There was excellent control of rot and the sweeping action of the skirt did not affect the cranberry vines adversely, he said. Engineering and financial problems have hindered Hovercraft from being developed for agricultural pesticide application, he added.

In the Hovercraft, lots of air is moved by a big fan under a bootlike structure. Positive pressure is built under the vehicle and another fan is used

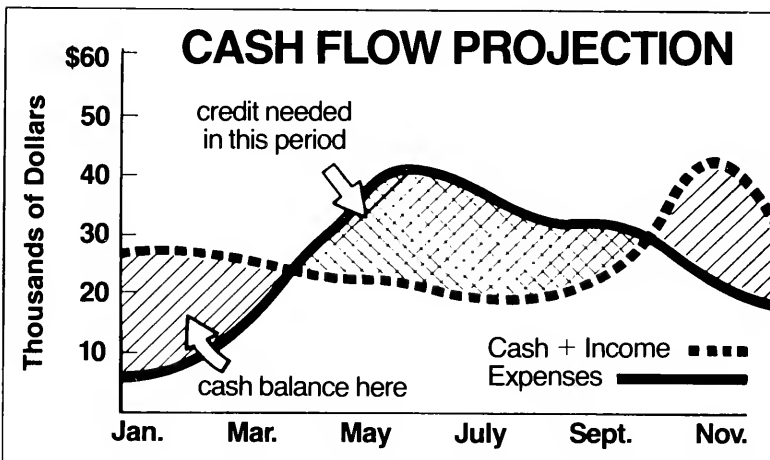
for propulsion. The compound is placed in a turbulent air situation, so a good mix is ensured. And the device is capable of lifting large loads.

**DR. STRETCH** presently is experimenting with improving the shelf life of water harvested cranberries.

"If you can harvest the fruit at the proper maturity, remove the fruit from the water quickly, then store it at 38 degrees F, the fruit can last for 10 weeks with acceptable losses in storage," he said. "The losses are in the realm of economic possibilities.

"Right now the fresh fruit market is handled by dry harvesting. If New Jersey went back into the fresh fruit market, dry harvesting would have to be used or water harvesting would have to be done in an expeditious way."

(continued on page 9)



## Cash Flow: the pulse of your farm



Farming is everybody's bread & butter.

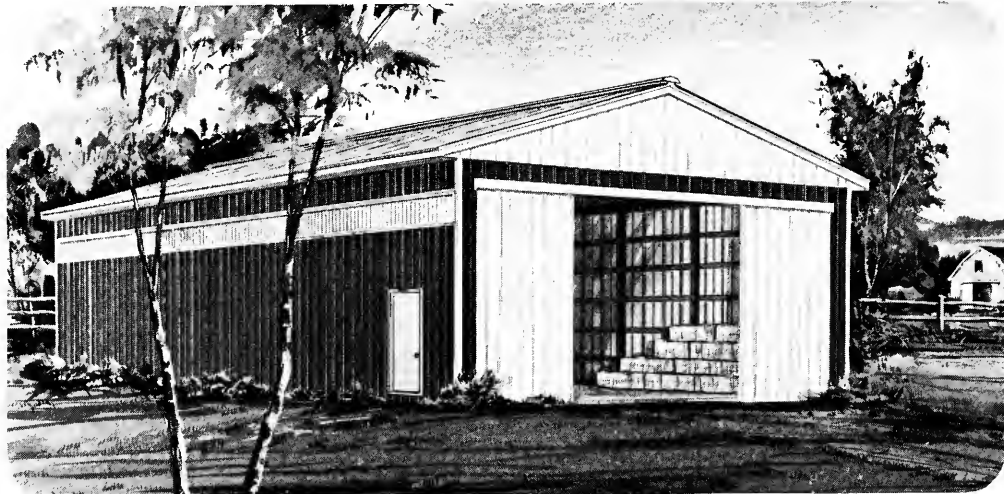
Every farm has its pulse — its regular tide of income and expenses, easily seen on a cash-flow chart.

When you know your farm's cash flow, you know when to expect a cash surplus. Or, when to take out a loan — or, just as important, how much to borrow, so you won't have money loafing around.

Knowing your cash flow can help you be a better financial manager. It helps you take advantage of discounts. See us, and we'll help you start your cash-flow planning today.

**Production Credit Associations of Wisconsin**

# AGWAY



## BEAT INFLATION... Buy An AGWAY Package Building NOW!

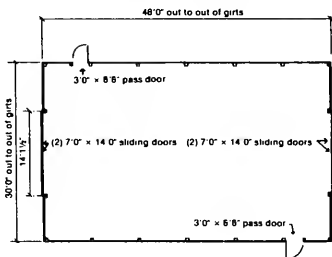
(CONSTRUCTION TO BE HANDLED BY YOU  
OR YOUR CONTRACTOR.)

The price quoted by Agway is guaranteed for 90 days after signing the contract and covers all materials needed except plumbing, heating, electrical supplies, concrete floor, insulation and interior finishing products.

### PACKAGE INCLUDES:

- BLUEPRINTS designed to comply with most building codes.
- MATERIAL SPECIFICATIONS LIST.
- GUARANTEED ADEQUATE SUPPLY OF MATERIALS TO COMPLETE THE BUILDING when blueprints & specifications are followed.
- PLANNING ASSISTANCE including help with developing a total budget for the building: site cost, site preparation, electrical, plumbing, water, etc.

**FINANCING AVAILABLE** through Telmark, Agway's own financing company. Ask your salesperson for details.



### The 30/48 Storage

30' x 48' x 16'

General purpose building. Ideal for: • farm equipment • crop storage • tractors • fertilizer storage • seed storage • fencing supplies • pesticides • snow blades, seasonal equipment

FROM \$8,300

## AGWAY BUILDING MATERIALS

15 Washington St., Rte. 53  
PEMBROKE—Tel: 826-5171



New Store Hours Are: Mon., Tues., Wed., Thurs., Fri., 7:30-4:30. Sat., 8:00-4:30

## DR. STRETCH . . .

(continued from page 7)

During the last season, Dr. Stretch worked with Dr. Bert Zuckerman in evaluating the combined use of Glyodin and Difolatan on cranberry fruit rot. Although the data evaluation has not been completed, synergistic effects have been found so that somewhat lesser quantities of Difolatan can be used, thus cutting costs.

Dr. Stretch is presently evaluating the effect of the Difolatan-Glyodin combination on yield. Studies will be done on color, also, and data will be gathered from more than one area.

"If this works in New Jersey, it probably will work anywhere," Dr. Stretch said.

He believes also that there may be a chance of improving disease control by using two compounds instead of one, because several fungi—not just one—cause fruit rot.

Dr. Stretch also is planning cooperative work with Dr. Eric Stone, also of the Rutgers station, to coordinate disease control with breeding.

"It's possible there may be natural control of disease because it has been found that some varieties of cranberries don't rot, while others surrounding an apparently disease-resistant type do," he said.

He is presently gathering fruit from apparently disease-resistant experimental varieties and extracting the seed so further studies can be made.

DR. STRETCH, a pleasant and unassuming man, joined the staff at the Rutgers experimental station in 1962. In the beginning of his career here, he took compounds already being utilized for disease control and refined their rate of use. For example, Maneb, used at 4½ lbs. per acre, was later used at 3 lbs. per acre.

Dr. Stretch has a small but pleasant office in a modern building constructed just three years ago.

"From November through March, we tend to be indoor people here at the station," he said. "But from April through October, we spend more time outdoors."

Dr. Stretch and his family live on an old cranberry bog near Vincentown. He enjoys woodworking, boating on Delaware Bay and camping. His four children, three girls and a boy, range in age from 16 to 23.



### MASSACHUSETTS

April was an unusual month on the basis of temperature as it averaged out exactly normal. The first two-thirds of the month was warm and the last one-third evened it out. Maximum

temperature was 66 degrees on the 13th and minimum was 28 degrees on the 18th. Cooler than average days were the 1st, 2nd, 22nd, 23rd and 28th and the only warmer than average days were the 11th, 13th and 21st.

Precipitation totaled 4.16 inches which was also very near normal, being 1/8 inch on the low side. There were measurable amounts on 15 days with 1.09 inches on the 4th as the greatest storm. We are about 3-2/3 inches below normal for the four month period and about 10-3/8 inches behind

(continued on the following page)

**STOCKS & BONDS**  
 have been our business for over 45 years.  
 We are easy to reach.  
 Call us for what YOU need to know.

**Gage-Wiley & Co., Inc.**  
 40 Court Street, Plymouth, Mass. 02361  
**617-746-3322** Call Toll Free in Mass. **1-800-242-0263**

**FOR BANKING SERVICE  
 AND CONVENIENCE  
 UNSURPASSED IN  
 YOUR COMMUNITY.**

**THE  
 NATIONAL BANK  
 OF WAREHAM**

<u>Marion</u>	<u>Wareham</u>	<u>Carver</u>
36 Main St.	237 Main St.	Main & Center Sts.
	295-2100	

MEMBER F.D.I.C.

## WEATHER WATCH . . .

(continued from the preceding page)  
1979 for the period.

The March-April precipitation total is slightly above normal and has brought reservoirs back to near normal. The winterkill situation remains hard to define, but there is a fair amount around. A majority of bogs show at least injury on high parts and some have a substantial percentage of injury. The reduction in crop will probably not be estimated with any degree of accuracy before "set" in July.

Some leaf-drop also was observed, mostly in low spots and on bogs that cropped heavily last year.

I.E.D.

### NOVA SCOTIA

April started out with some fine weather and considerable early planting took place. During the last week of the month, the weather changed to wet and cool so that we are just about on schedule. It appears that some winter injury occurred on cranberry vines.

I.V.H.

### OREGON

Precipitation through April in western Oregon was generally normal or above. Near normal temperatures

prevailed across the state. The last week had significant warming and a few places broke records for certain dates. Soil moisture is adequate in nearly all agricultural regions.

Agricultural Weather  
Advisory Service

## regional news notes

### Washington

By AZMI Y. SHAWA

Furadan has been used successfully for the control of black vine weevil on unflooded cranberry bogs in Grays Harbor and Pacific Counties.

For the fourth year, an emergency exemption from registration requirements from EPA for the use of furadan was requested. It is hoped that a petition for registration will be written soon, and a federal label will be secured.

Cranberry girdler is increasing and becoming a problem, especially in the Grayland area. If you notice, in July, any sign of dying vines, it is worth investigating to find the cause. Diazinon 14G (14 percent granular) was cleared last year for use under 24 (c) registration.

## letters

### DONATES TO LIBRARY

I will not be subscribing to CRANBERRIES as I am no longer in the business.

Mr. Gebhardt retired in December 1970 and passed away March 28, 1977.

He had a collection of your magazines—complete from 1954 through 1976. He also had copies of his uncle Herman's from many years. These I have given or will be giving to the Tomah Public Library as they like material for their students in the area. There are quite a few marshes in this area.

Charlotte Gebhardt,  
Tomah, Wisc.

A MOST COMPLETE INVENTORY OF  
IRRIGATION ACCESSORIES

# LARCHMONT

ENGINEERING & IRRIGATION, INC.

P.O. Box 66, 11 Larchmont Lane, Lexington, MA 02173 (617) 862-2550

IRRIGATION EQUIPMENT DESIGNED ESPECIALLY  
FOR THE CRANBERRY INDUSTRY

FOR EXAMPLE:

*Gorman-Rupp Self Priming Electric Sprinkler Pumps*  
*Proven Quick Couple Riser*  
*Ingersoll-Rand Water Harvest Pumps*  
*Aluminum Insert Coupling For 4" Poly Pipe*

Contact:

Larchmont Engineering  
Phil Tropeano, President  
(617) 862-2550 (Call Collect)



Contact:

Bill Stearns, Plymouth, Mass.  
(617) 746-6048  
(617) 746-2610





## CRANBERRY CHIFFON PIE

- 1 baked 9-inch pastry shell
- 1 tablespoon unflavored gelatin
- ½ cup cold water
- 2 cups (½ lb.) fresh cranberries
- 2 egg whites
- 1 cup sugar
- 1 tablespoon lemon juice

- ¼ teaspoon salt
- 1 cup whipping cream
- 1 tablespoon sugar

Prepare and bake pastry shell; cool. Soften gelatin in water. In medium saucepan, combine cranberries and softened gelatin. Bring to boiling; simmer 5 minutes, stirring often. Cool. In large mixer bowl, combine egg whites, the 1 cup sugar, the lemon juice, salt and cranberry mixture. Beat until mixture holds

firm peaks, about 6 to 8 minutes; pile into pastry shell. Chill 4 to 5 hours. Whip cream and 1 tablespoon sugar; spoon in circle atop pie.

## CRANBERRY FIELD DAY SCHEDULED

The Annual Cranberry Field Day will be held Friday, June 27 at 10 a.m. at the Coastal Washington Research and Extension Unit, Long Beach.

## OCEAN SPRAY MAKES MARKETING CHANGES

Ocean Spray Cranberries Inc. of Plymouth, Mass., has promoted four staff members as part of a major reorganization of its marketing department, announces Patrick M. McCarthy, group vice president, operations.

George H. Kilpatrick has been promoted from vice president, domestic marketing, to senior vice president, marketing. He will now be directly responsible for Ocean Spray's domestic and international marketing and sales.

John D. Walsh has been promoted to director of marketing, domestic, and will oversee the marketing activities of Ocean Spray's products in the U.S.

Stephen M. Abelman has been promoted from product manager, sauce products, to senior product

manager, sauce products.

Joseph A. Flannigan has been promoted from product manager, grapefruit juice, to senior product manager, grapefruit juice/frozen concentrates.

Ocean Spray recently reported record sales of \$196.7 million for fiscal 1979, up 23 percent over the previous year.

## FOOD INCOME SLICE IS LESS TODAY THAN IN '51

Seventeen percent of the average family's income is spent for food today compared to 23 percent in 1951.

So reports the Du Pont Co., which cites Norman Borlaug, winner of the Nobel Peace Prize, as saying that as much as one-half of our food crops would be lost if it weren't for agricultural chemicals.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

**FOR SALE**

UD 573 International Turbo V-8 260 H.P. Industrial Diesel with Clutch. 3500 hrs. T.T. Excellent condition, will guarantee.

1977 6 cyl. Deutz with 4 inch Hydro Cent. Pump. 1200 hrs. T.T. Unit mounted on trailer. Will sell engine separately. Excellent, will guarantee.

2 year old 60 H.P. Electric Motor, fused disconnect, magnetic starter, with 4 inch Berkeley pump.

Call (715) 634-8217 or (715) 865-4312

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

# Niemi Electric Co.

ROBERT NIEMI

## ELECTRICAL CONTRACTORS

### HEAT, LIGHT and POWER WIRING

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL



TEL. 295-1880

Robert Niemi Pinchurst Dr. Wareham, Mass.

# Cranberry girdler: the vine destroyer

CARL H. SHANKS JR.

Southwestern Washington  
Research Unit

The cranberry girdler, *Chrysoteuchia topiaria* (Zeller), is widespread across the U.S.

It is a pest of not only cranberries, but also grasses. On grasses, it is part of a group of moths commonly called "sod webworms," and is a problem in grass seed fields in Oregon and Washington. Although it has been a serious pest of cranberries in the East for many years, it has had a minor pest status on that crop in Washington until recently.

In October, 1979, I examined five bogs in the Grayland area. All were infested with the girdler and damage ranged from

slight to very serious. In the latter case, probably at least 50 percent of the vines were damaged and the damaged vines were usually dead. The lower 1/4-1/3 of the vines had been partially or entirely girdled or the vines were completely severed. In some

bogs there were so many larvae that their frass (fecal material) looked like fresh sawdust spread on the soil.

## LIFE CYCLE

The adult moth appears in mid-June. It has a wing span of about 1/2 inch and the wings are straw colored with areas of silver, brown and black. At rest it folds its wings along its body instead of having them outstretched. It lays its eggs on the soil surface in July.

The larvae, which emerge from the eggs, are dirty-white in color. They feed on the vines along the soil surface and somewhat on the roots. Feeding continues until October, at which time they prepare for winter by enclosing themselves in silk cocoons (hibernaculae) covered with sand particles or leaves. All are in the hibernaculae by the end of October and they remain there all winter.

In May the larvae change to pupa stage. In this stage the insect undergoes its final transformation before adulthood. The adult moths emerge from the pupal case in June to begin a new cycle.  
**SPRAYS**

The sprays applied for fireweed apparently do not control cranberry girdler. Diazinon 14G (14 percent granules) is now cleared for this use in Oregon and Washington. It has not been tested in Washington, but our label is



## Agway 12-24-12 Cran-Best

This product is an ammoniated, granulated fertilizer containing all three major plant food elements in each granule, not to be confused with the dry blended fertilizer being sold.

Don't guess on fertilizer, know what you are getting. Be sure. Use AGWAY 12-24-12 Cran-Best.

AGWAY 12-24-12 Cran-Best is available at the following stores:

Robert Alberghini  
Carver, MA  
617-866-4429  
New Bedford Agway  
New Bedford, MA  
617-997-0093

Cape Agricultural Supply Inc.  
Sandwich, MA  
617-888-0044

Pilgrim Agricultural Supply Inc.  
Plymouth, MA  
617-746-0970  
Merle Stetson  
E. Taunton, MA  
617-822-6748



attened after the Massachusetts label and the chemical has been very effective in that state. One grower applied it experimentally last October and had poor results. However, the larvae were full grown and had begun spinning their cocoons, so they were probably too old to be susceptible to the chemical.

The label specifies 21 lb. of Diazinon 14G per acre (0.5 lb. per 1,000 sq. feet.) as a broadcast treatment. The granules are to be watered in by sprinkler or rainfall. Apply it at the first sign of the girdler larvae, probably about mid-July. Do not apply it within seven days of harvest.

### HARD TO RETURN

If we wanted to abandon the tractor and return to the horse and the mule, agricultural experts tell us, it would take 20 years to produce 61,000,000 of the animals necessary.

We'd also have to utilize half the present farm land to feed them and hire 27,000,000 additional farm workers to use them.

### BOG VALUES HIGHEST

Land used for cranberrying again came out with the highest valuations on the list of farmland assessment values compiled by the Farmland Valuation Advisory Commission and sent to assessors by the Massachusetts Department of Revenue for application during the coming fiscal year.

The value range is used by the assessors in making local assessments.

The range of values established for

bog land was \$800-\$1,200 per acre. Land used for tobacco and sod was next, at \$600 to \$1,000. Land used for nurseries was set at \$320 to \$480. Lowest on the list of 11 farm uses was nonproductive land, set at \$10 to \$20.

### NEW ADDRESS FOR ASCS

The Plymouth County, Mass., Agricultural Stabilization and Conservation Service has moved to new quarters at 45 Plymouth St., North Middleboro MA 02356.

## BARK RIVER *Culvert and Equipment Co.*

*(Wisconsin-Michigan Growers)*

**ALUMINUM HEADGATES FABRICATED  
TO YOUR SPECIFICATIONS  
HAND WHEEL OPERATED GATES  
ALUMINUM CORRUGATED PIPE  
INTERNATIONAL POWER UNITS  
INTERNATIONAL CRAWLER TRACTORS  
WARNER & SWASEY EXCAVATORS  
WALDON LOADERS AND USED EQUIPMENT**

Eau Claire, Wis.  
715-835-5157

Escanaba, Mich.  
906-786-6920

Milwaukee, Wis.  
414-461-5440

Madison, Wis.  
608-222-4151

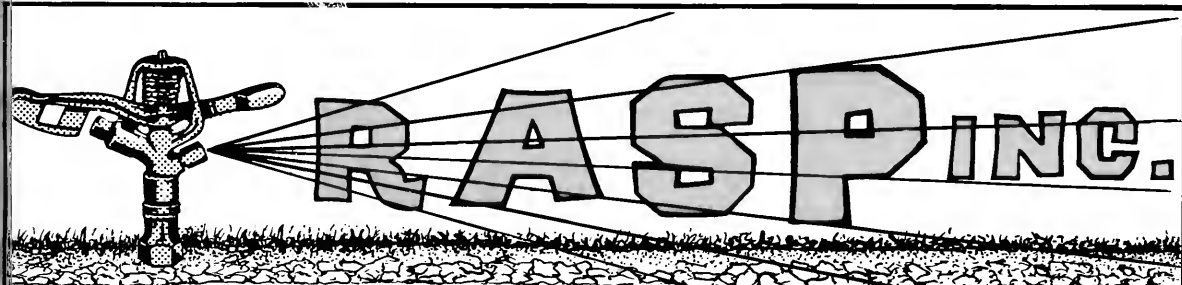
Green Bay, Wis.  
414-435-6676

Ironwood, Mich.  
906-932-0222



**INTERNATIONAL CONSTRUCTION EQUIPMENT**

INTERNATIONAL HARVESTER COMPANY



**AUTHORIZED AGWAY REPRESENTATIVE**

**LICENSED SPRAYING OF PESTICIDES (Seasonal)**

**WITH A COMPLETE LINE OF:**

**CRANBERRY INSECTICIDES • FUNGICIDES  
HERBICIDES • MITICIDES • and FERTILIZERS  
IN STOCK!**

**ROBERT A. ALBERGHINI - SPRAYING  
RFD 5 PLYMOUTH STREET, CARVER, MASS. 02330**

**TELEPHONE: 866-4429**

**For further information, call evenings after 5:30**

**AGWAY**

**AGWAY**

**COMMITTEE SPLIT . . .**

(continued from page 3)

said one individual. "They're afraid someone might get on there who would try to ruin the marketing order or hurt the industry."

Another worry is what the presence of a public member would do to the voting structure of the committee. At

present, five of the seven members must concur to get a motion passed. Adding the public member would mean six votes are necessary for passage.

The search for a public member began last fall, largely at the urging of the U.S. Department of Agriculture. Marketing committees aren't required to have representation outside the

industry, but the USDA would like them to.

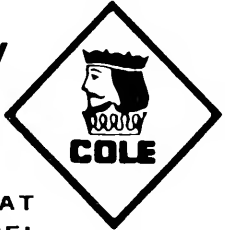
"I'm afraid that if we don't stop this foot dragging, the day may arrive when the USDA becomes forceful about the matter," CRANBERRIES was told.

"Other marketing committees have public members and they're pleased with them. It seems to me there would be an advantage to having a public member. I think it'll help the industry."

He and others involved with the committee would like to see the selections made before the annual meeting. They also want to drop the interviews in favor of voting for the member and alternate on the basis of the individual credentials already presented to the committee.



**WISCONSIN CRANBERRY HEADQUARTERS FOR**



EVITAL • SOLO • DIQUAT  
2-4-D • DOWPON • ETHREL  
SEVIN • PARATHION • GUTHION • DIAZINON  
KOCIDE • DIFOLITAN • FERBAM  
COPPER SULFATE • PRINCEP


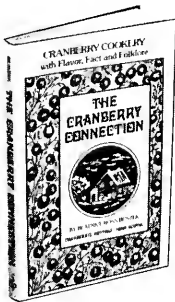
**Cole Chemical Supply**

DIVISION OF *Hopkins* AGRICULTURAL CHEMICAL CO  
P.O. BOX 7211, MADISON, WISCONSIN 53707  
608-221-1581

**The scoop of the year!**

*Cranberry Flavor, Fact and Folklore in*

**THE CRANBERRY CONNECTION**, by Beatrice Buszek. Your favorite berry pops up in kitchen-tested recipes for every delight from Cranberry Bog to Cranberry-Banana Bread, Cranberry Avocado Dip, and countless other desserts, drinks, salads, entrees. "A fascinating revelation of the many uses for cranberries . . . you'll find this book a treasure."—*Des Moines Register*. Paperback, \$7.95.

Please send \_\_\_\_\_ copies of **THE CRANBERRY CONNECTION**, \$7.95 each.

Name \_\_\_\_\_

Address \_\_\_\_\_

Zip \_\_\_\_\_

Add \$1.00 for postage; Conn. residents add 7% sales tax.

**CRANBERRIES MAGAZINE**  
P. O. Box 249, Cobalt, CT 06414

**STAY INFORMED**

subscribe to CRANBERRIES  
\$5 a year; \$9 two years  
Send check or money order to

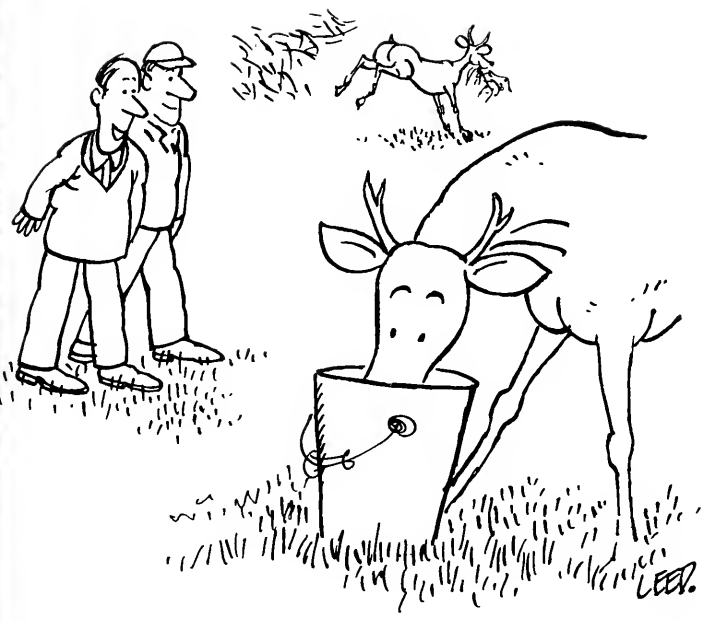
**CRANBERRIES**  
P.O. Box 249  
COBALT CT 06414

**CORRUGATED CULVERT PIPE and FLOW GATES**

Aluminum - Galvanized  
Asphalt Coated

**Felker Bros. Corp.**

**MARSHFIELD WISCONSIN**  
Area 715 384-3121



**"THAT ONE ONLY LIKES THE JUICE."**

**CRANBERRY WORLD SLATES FIRST CONCERT OF SEASON**

The season's first free concert, with the Regional Symphonic Band under the baton of John Pandolfi, is slated for June 22 at Cranberry World in Plymouth, Mass. The museum devoted

to the berry recently opened for its third season.

Surrounded by three working bogs, Cranberry World offers visitors two floors of exhibits, audio-visual presentations and three dimensional displays tracing the 300 year saga of the red berry from pre-colonial days

to the present. Period and contemporary harvesting tools, photo montages, slides and video offerings and a striking diorama of a scale model cranberry farm entertainingly detail the cranberry story from growing and processing to the role of cooperatives in American farming today.

Among the new exhibits this year will be a nostalgic tribute to 1930 tying in with Ocean Spray's golden anniversary.

**DIRECTORY for Cranberry Growers**

**The CHARLES W. HARRIS Company**  
 451 Old Somerset Avenue  
 North Dighton, Mass.  
 Phone 824-5607

**AMES**  
 Irrigation Systems  
 RAIN BIRD  
 Sprinklers  
 HALE  
 Pumps

Highest Quality Products  
 with Satisfaction Guaranteed

Office 295-2222      K. Beaton 295-2207

**BEATON'S CRANBERRY GROWERS SERVICE**

**WAREHAM, MASS.**

D. Beaton 888-1288      P. Beaton 947-3601

Specializing in

- DITCHING
- NETTING
- SANDING
- WEED CLIPPING
- COMPLETE BOG MANAGEMENT
- HARVESTING (Wet and Dry)

Also

Complete line of portable Crisafulli Pumps 2" - 16"  
 Plastic netting for suction boxes

**Farm Credit Service**

Box 7, Taunton, Mass. 02781  
 Tel. 617-824-7578

•

**PRODUCTION CREDIT LOANS**  
**LAND BANK MORTGAGES**

Office - on Route 44  
 1/4 Mile West of Rt. 24

# 1930 - 1980 50 YEARS OF SUCCESSFUL COMMITMENT

- To handling members' crops — all year, every year
- To developing and expanding the market for members' crops — nationally and internationally
- To generating consumer acceptance of the Ocean Spray trademark as the standard of excellence for the industry
- To increasing grower returns at a rate consistent with long-term stability and growth

Ocean Spray: the handler of choice now  
— and for the years ahead



Ocean Spray Cranberries, Inc., Plymouth, MA 02360

# CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

Vol. 44, No. 7

July 1980



**Election views . . . 3**

★★★★★

**Boycott Russia . . . 4**

Library UMass  
Serials Section  
Amherst MA 01002



**We carry a complete inventory  
of **CRANBERRY****

**insecticides, fungicides,  
fertilizers and herbicides**



**YOUR YEAR-ROUND SERVICE CENTER**

**CRANBERRY HIGHWAY\*WEST WAREHAM, MASSACHUSETTS 02576\* (617) 295-1553**

## Association heads say

# Growers are fed up over big government

Government has become a Hydra-headed Dracula draining the blood of U.S. business enterprise, in the eyes of the nation's cranberry growers.

That's an opinion you pick up from talking to the leaders of cranberry grower associations

around the country.

CRANBERRIES interviewed these leaders recently, asking them what they thought growers were looking for in this election year.

Cited by all the respondents was a call for less government interference.

NORMAN Le Munyon of Vincentown, N.J., president of the American Cranberry Growers Assn., stated the case most bluntly.

"They (growers) want to get some of the Gestapo agents off their backs," he snapped.

The same theme was sounded in different ways.

Leo Sorensen of Wisconsin Rapids, Wisc., president of the Wisconsin State Cranberry Growers Assn., put it this way:

(continued on page 8)

## CRANBERRIES SPARED BY MT. ST. HELENS

Cranberry country in the state of Washington escaped all but a light dusting of volcanic ash from the recent eruption of Mt. St. Helens.

The killer volcano, which

(continued on page 10)

### COVER PHOTO

YOU'RE NEVER too old to run a picking machine, according to 80-year-old Harvey Burgess of North Carver, Mass. Although he sold his last bog to Alfred Pappi

(continued on page 6)



**Bog construction**

**Vine setting**

**Flumes and flume work**

**Bog sand**

**Nemasket Construction Co., Inc.**

**275 Wareham St., Middleboro MA 02346**

**(617) 947-1723**

# Crosses balk at trip to Russia

By MICHAEL COUTURE

Angry over Soviet aggression in Afghanistan, the director of the Massachusetts Cranberry Experiment Station and his wife objected to the USSR being one of the stops on a European tour by Bay State agricultural experts.

Dr. Chester E. Cross, the director, and his wife, Shirley, chairman of the state Board of Agriculture, informed Frederic Winthrop Jr., state commissioner of agriculture, of their decision.

"We told him that under no circumstances would the Crosses be guests of the Russian government," Dr. Cross said.

Because the Crosses' son, Peter, had worked in Afghanistan, the couple felt even more strongly about the Soviet invasion.

"Peter, his wife and child, returned to the United States in August of 1979," Dr. Cross said.

"He knows the people well and respects them. I am heartily in support of the Olympic boycott called by President Carter."

Commissioner Winthrop was faced with having two prestigious persons missing from the group. Soon others from the group reported similar feelings. The Soviet Union was stricken from the itinerary.

"He (Winthrop) has thought that the sharing of information between ourselves and the Russian farmers would have been a good exchange for everyone and would have helped the feelings between the nations," Dr. Cross said.

Now the first stop for the Massachusetts Agricultural and Food Leaders Goodwill People-to-People Program Mission became Warsaw, then Krakow, Poland.

The mission is not supported by government funds but pays its

own way. Developed during the Eisenhower Administration, the program has resulted in an important exchange of information between the U.S. and other nations.

On his trip to Poland, Dr. Cross was scheduled to meet with some familiar faces because many Polish scientists have worked at the UMass Cranberry Station in order to tap the knowledge of the station's renowned staff.

"We have always had a good relationship with the Polish scientists and the government and it will be interesting to see some of the persons we have had at the station," Dr. Cross said prior to leaving.

Other stops include Romania, Denmark and Sweden. Through Dr. Cross said, the group intend to meet with agricultural expert at night and tour the various fields during the day.

"The group has an interest in learning how they (the Europeans) use various pesticides, insecticide and how they work with environmental quality," Dr. Cross said. "I would like to discuss frost protection, which is important in the growing of strawberries as well as cranberries."

## EMERGENCY USE OF ORTHENE APPROVED

Emergency use registration of Orthene against the brown spanworm has been approved by the Environmental Protection Agency.

Orthene is toxic to bees, warns Charles F. Brodel, entomologist at the Massachusetts Cranberry Experiment Station.


"Severe losses can be expected if bees are present during an application or up to 24 hours after an application," Dr. Brodel says. "Take necessary precautions. In order to prevent bee losses, sprinkler system applications should be made at dusk and, where possible, light sprinkler irrigation should continue the day following application."

Read CRANBERRIES

Office 295-2222

**BEATON'S CRANBERRY GROWERS SERVICE**

K. Beaton 295-2207



D. Beaton 888-1288

**WAREHAM, MASS.**

F. Beaton 947-3601

Specializing in

- DITCHING
- NETTING
- SANDING
- WEED CLIPPING
- COMPLETE BOG MANAGEMENT
- HARVESTING (Wet and Dry)

Also

Complete line of portable Crisafulli Pumps 2" - 16"  
Plastic netting for suction boxes



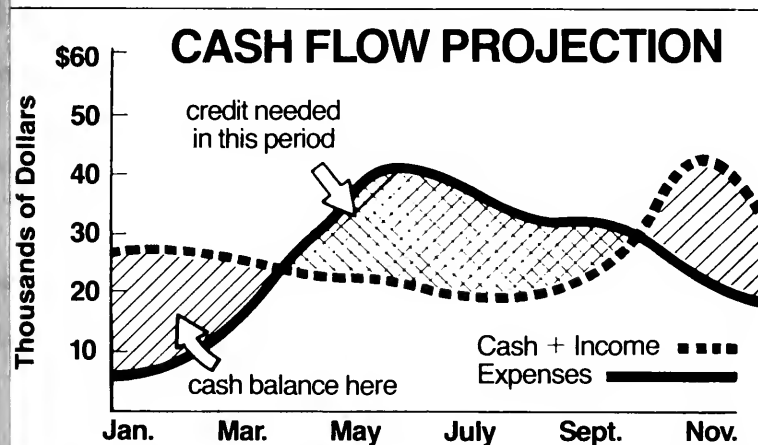


## Fuel fee fight won

Jeers and hoots in the House greeted the President's veto of legislation killing his 10-cent-a-gallon gasoline fee. And then House members promptly overrode the veto by a 335-34 vote.

The Senate whipped the veto by 68-10.

Hosannas undoubtedly went up in most farm fields. What growers don't need is an additional fuel cost burden, even one aimed at making us virtuous through taxation. Costly fuel was one of the major reasons farm costs were up a whopping 16 percent last year.



## Cash Flow: the pulse of your farm

Every farm has its pulse — its regular tide of income and expenses, easily seen on a cash-flow chart.

When you know your farm's cash flow, you know when to expect a cash surplus. Or, when to take out a loan — or, just as important, how much to borrow, so you won't have money loafing around.

Knowing your cash flow can help you be a better financial manager. It helps you take advantage of discounts. See us, and we'll help you start your cash-flow planning today.

**Production Credit Associations of Wisconsin**



Farming is everybody's bread & butter.

## JAPAN BUYS MOST FROM U.S. FARMER

The longtime top U.S. farm market, Japan imported more of America's farm products in 1979 than ever before.

The record \$5.26 billion in imports amounted to almost double that of the next largest U.S. market.

## CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

—Our 44th Year of Publication—

VOLUME 44—No. 7

July 1980

Send correspondence to:

P.O. Box 249  
Cobalt CT 06414

Phone: (203) 342-4730

Bob Taylor, Publisher/Editor

### ADVISORS, CORRESPONDENTS

Massachusetts—Dr. Chester E. Cross, Director, Massachusetts Cranberry Experiment Station; Irving Demoranville, Extension Cranberry Specialist, Massachusetts Cranberry Station; Michael Couture, East Wareham, Mass.

New Jersey—Philip E. Marucci, Cranberry and Blueberry Specialist, Cranberry and Blueberry Laboratory, Chatsworth, N.J.; Mary E. Archibald, Collingswood, N.J.

Nova Scotia—I.V. Hall, botanist, Research Station, Kentville, N.S.

Oregon—Arthur Poole, Coos County Extension Agent, Coquille, Ore.

Washington—Azmi Y. Shawa, Associate Horticulturist and Extension Agent in Horticulture, Extension Unit, Long Beach, Wash.

Wisconsin—Vernon Goldsworthy, Eagle River, Wisc.; Tod D. Planer, Farm Management Agent, Wood County, Wisc.; Joan E. Humphrey, Friendship, Wisc.

CRANBERRIES is published monthly by the Taylor Publishing Co., Wellwyn Drive, Portland CT 06480. Second class postage is paid at the Portland, Conn., Post Office. Price is \$8 a year, \$15 for two years, 80 cents a copy in the U.S.; \$9 a year in Canada; \$10 a year in all other countries. Copyright 1980 by Taylor Publishing.  
ISSN: 0011-0787

# Big pest hunt slated

Massachusetts growers are being asked to join a five year effort by the Cranberry Experiment Station to gain as much data as possible on cranberry pests.

Special attention, says Charles F. Brodel, station entomologist, will be given to the southern red mite, blackheaded fireworm, cranberry weevil, brown spanworm, cranberry tipworm, cranberry fruitworm, Sparganothis fruitworm and cranberry girdler.

During the summer months, several students from the University of Massachusetts will assist with the project.

To provide additional necessary monitoring, growers are being asked to volunteer to observe their own bogs.

Says Dr. Brodel: "Repeated

## COVER PHOTO . . .

(continued from page 3)

a few years ago, Burgess still puts in time weeding and picking at the Pappi and David A. Ward bogs. He formerly owned 32 acres in Duxbury and North Carver.

Grower Larry Cole says Burgess' "production 40 and 50 years ago was what many growers would be happy to produce today." Yes, cranberries are in the blood of the Burgesses. Harvey's dad, John, was a grower and a cranberry broker. (Photo by David A. Ward)



## STAY INFORMED

subscribe to CRANBERRIES

\$8 a year; \$15 two years

Send check or money order to:

CRANBERRIES

P.O. Box 249

COBALT CT 06414

observation and sampling over a number of years will provide the type of information needed to 'see' how pest populations are increasing and decreasing with time on the average bog. Hopefully, it will also indicate which production practices or insecticides cause flare-ups or outbreaks of certain pests. As an example, we would like to know why Bog A year after year is severely infested with mites while Bog B nearby is hardly ever infested."

Growers interested in volunteering are asked to call the station.

## ART SHOWS HELD AT CRANBERRY WORLD

In conjunction with the 50th anniversary of Ocean Spray Cranberries Inc., Cranberry World in Plymouth, Mass., is staging a special series of art exhibits and outdoor musical events.

Anita Franks, the museum's curator-administrator, says that the Cranberry World art shows will all have a regional motif spotlighting the work of painters, sculptors, craftpersons and photographers from each of the five cranberry producing states plus Florida where the Ocean Spray cooperative now has many members.

Daily cooking demonstrations will continue to be held at the modern test kitchens on the building's first floor. Following the demonstration, the audience is encouraged to sample the cranberry products made during the program.

Group visits are welcome but reservations are required. They can be made by writing or calling: Cranberry

World, Water Street, Plymouth MA 02360. Telephone no.: (617) 747-2350.

Calendar of Art Exhibits:

July 1-30—"Wisconsin in Watercolor," a selection of paintings from the traveling exhibit, "Watercolor Wisconsin, '79."

Aug. 1-31—"Sculpture by Cabot Lyford," a nationally known New England sculptor given a commission for an original work to commemorate Ocean Spray's 50th anniversary.

Sept. 2-30—"Contemporary

Washington State Artists," guest curator, Michael Kangas, work by a group of outstanding northwest artists including paintings, glass and ceramic sculpture.

Oct. 3-29—"Contemporary Craft from Oregon," guest curator, Racha Griffin, a selection of works by the foremost crafts artists from Oregon.

Nov. 1-30—"Portraits in Print and Paint," a gallery of Plymouth personalities as depicted by leading area artists.

# DIRECTORY for Cranberry Growers

## The CHARLES W. HARRIS Company

451 Old Somerset Avenue  
North Dighton, Mass.

Phone 824-5607

AMES

Irrigation Systems

RAIN BIRD

Sprinklers

HALE

Pumps

Highest Quality Products

with Satisfaction Guaranteed

## Farm Credit Service

Box 7, Taunton, Mass. 02781  
Tel. 617-824-7578

PRODUCTION CREDIT LOANS

LAND BANK MORTGAGES

Office - on Route 44

1/4 Mile West of Rt. 24

# Sees growth in the 80's

By PAM MCGINTY

Ocean Spray Plant Manager  
Bandon, Ore.

As we enter the decade of the 1980's, we are approaching the 100th anniversary of the first cranberry bog planted in Oregon.

This bog was planted in Coos County by Charles Dexter McFarlin in 1885.

From a small beginning, a slow but steady growth of the cranberry industry in Coos and Curry counties began. By 1925, 20 acres of bogs had been established and by 1945 the number had grown to 180 acres.

In the following decade the growth accelerated to reach 470 acres by 1955 and a record number of 156 growers. By the early 1960's acreage had increased to a total of 520 and by the beginning of 1980 the total acreage had grown to a record of 90 acres.

As the total acreage increased, the number of growers has declined—from a high of 156 to the current 92. In 1957 individual ownership of bogs varied from a low of .3 acres to 8 acres. With the beginning of the 1980's, this has changed to an average of 10 acres per grower, ranging from less than 5 acres

to a high of 65 acres.

Growth is continuing—new bogs are in the process of being built and many more are in the planning stage. The cranberry market is strong, its base has broadened from "cranberries for the holidays" to cranberries year round.

New products are available, tantalizing recipes using cranberries abound and more people than ever are familiar with, and enjoy, the tart and refreshing flavor of Bandon's "red gold."

The prospects for the cranberry industry during the 1980's is bright. Its future is in good hands—the cranberry grower. He has been energetic, innovative, inventive; has constantly been seeking and finding better methods of growing, harvesting and delivering his crops. He has changed only in that his efforts have increased in this direction.

As the promise of the 1980's materializes, the benefits to the cranberry growers will contribute to a sound economy for the area.

## 1¼ MILLION BARRELS OF BERRIES ON HAND

The latest inventory and handling report released by the Cranberry Marketing Committee shows that

as of May 1 there were 1,261,147 barrels of cranberries on hand.

The total includes the inventory of all but one handler.

A total of 905,068 barrels were in freezers. Another 268,334 barrels were in processed form and 87,845 barrels of fresh cranberries were on hand.

The figures for the 1979 crop compares to the following 1978 figures: 816,563 barrels; 339,618, processed; 24,325, fresh and other.

Figures for 1978: 787,493, freezers; 171,107, processed; 8,207, fresh and other.

## FOOD GRADING UNDER STUDY

The food grading policies of the U.S. Department of Agriculture are being reviewed, with possible changes in the offing.

Public hearings on grading will be held this month and next by the agency in Iowa, Florida and California.

Carol Tucker Foreman, assistant secretary of agriculture for food and consumer services, said: "Our grading program should be one that consumers can understand and use. Research indicates that the program may not be meeting consumers' needs. We will evaluate public comment on our options and propose changes in our grading regulations later, if warranted."

## FRUIT EXPORTS UP

The export of U.S. fruits and preparations increased 11 percent from 1978 to 1979.

## Read CRANBERRIES

### CAPTAIN CRAN BERRY



## GROWERS ARE FED UP . . .

(continued from page 3)

"They are disturbed that government is getting too big and into our business too much. One agency that always bothers us is OSHA. And then there is so much unnecessary paper work which results in the eating up of lots of tax dollars."

The Cape Cod Cranberry Growers Assn. president, John C. Decas, said: "Cranberry growers tend to go along with the general policies of the Farm Bureau, which call for less government, less government interference. They'd like to see a situation where, for example, chemicals can be registered more expeditiously. They're for a free market, competition. They tend to be conservative. You can see that in the annual meetings of the Cape Cod Cranberry Growers Association. They bring in speakers who espouse a conservative philosophy."

Terry Panter of Bandon, Ore., president of the Southwestern Oregon Cranberry Club, hit at President Carter's call for a 10 cents a gallon gasoline fee.

He said growers already were as displeased with Carter over fuel costs as with anything else that has happened under his administration.

"At least he got knocked down on that," Panter said.

INASMUCH as Ronald Reagan is basing his campaign heavily on a call for reduced federal spending and a smaller bureaucracy, he would seem to be the candidate most growers sympathize with.

If the sentiments of the association leaders are a reflection of the position of the growers themselves, that would indeed be the case.

Only one of the leaders, Le Munyon, said he would vote for

Jimmy Carter.

Said Le Munyon:

"I believe the one who is in there is as good as you're going to get. I think he's an honest man. There are damned few of them. Maybe he's not the best. But he's as good as can be expected."

Decas said he originally was for John Connally but now is for Reagan.

"Of those available," Sorensen said, "I'll go with Reagan."

Emphasizing that he doesn't vote along party lines, Panter declared, "As far as I'm concerned, Reagan is the lesser of the evils."

The Bandon, Ore., grower said: "I know they're (cranberry growers in his locale) are not pleased with Carter."

He added: "I thought Carter would do a better job because of his record in his state. Of course, Reagan had an impressive record in California. Jerry Brown has taken a lot of credit for it and blamed Reagan for what he

(Brown) did wrong. But that's politics."

Sorensen said that growers "are looking for better, stronger leadership, with an emphasis on the big problems of the economy number one.

"Secondly, they're concerned about foreign policy and, thirdly, about basic governmental operations."

(continued on the next page)

## CORRUGATED CULVERT PIPE

and

## FLOW GATES

Aluminum - Galvanized  
Asphalt Coated

# Felker Bros. Corp.

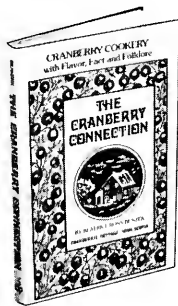
MARSHFIELD WISCONSIN

Area 715 384-3121

## The scoop of the year!

*Cranberry Flavor, Fact and Folklore in*

**THE CRANBERRY CONNECTION**, by Beatrice Buszek. Your favorite berry pops up in kitchen-tested recipes for every delight from Cranberry Bog to Cranberry-Banana Bread, Cranberry Avocado Dip, and countless other desserts, drinks, salads, entrees. "A fascinating revelation of the many uses for cranberries . . . you'll find this book a treasure."—*Des Moines Register*. Paperback, \$7.95.



Please send \_\_\_\_\_ copies of **THE CRANBERRY CONNECTION**, \$7.95 each.

Name \_\_\_\_\_

Address \_\_\_\_\_

Zip \_\_\_\_\_

Add. \$1.00 for postage; Conn. residents add 7% sales tax.

**CRANBERRIES MAGAZINE**  
P. O. Box 249, Cobalt, CT 06414

**LE MUNYON'S** biggest complaint about bureaucrats stemmed from government involvement with labor conditions and pay.

He assailed the government for requiring him to pay an elderly man \$3.10 an hour when the man was unable to produce enough to meet the cost of his labor.

"So what you have are people going on welfare when you could provide them with a job," Le Munyon declared.

He described a state employee who inspected the buildings in which Le Munyon housed his workers.

"That man just sat there in the hot sun for an hour. I asked him what he was doing. 'I'm fascinated watching these hop toads,' he said. Can you imagine that? That's the kind of people the state hires. Educated damned fools."

He went on: "All this government interference is no good. That's why I'm in farming. I want to be free."

fungicide applications by mid-June.

Orthene was granted an emergency registration again this year for control of brown spanworm. Worms are just hatching and spraying will start soon. Results last year were excellent.

\*\*\*\*

The spring weather data has not been helpful regarding the keeping quality of the 1980 cranberry crop. As of June 1 we have only five of a possible 16 points favoring good keeping quality this year.

As a result, the prospect for quality is only fair, and we urge all growers to make use of fungicides and to use them carefully as prescribed on the 1980 Insect and Disease Control Chart.

It should be noted that fungicide use in 1979 (when we had a record low of 1 point of a possible 16 favoring quality) was very helpful in reducing fruit rots where fungicides were used in timely applications.



### BARBECUED SHORT RIBS

5½ to 6 lbs. beef short ribs  
2 teaspoons salt  
Dash pepper

½ cup water  
1 12-ounce jar (1 cup) pineapple preserves  
½ cup canned whole cranberry sauce  
½ cup chili sauce  
½ cup vinegar

Trim excess fat from ribs; sprinkle meat with salt and pepper. Place ribs in Dutch oven. Add ½ cup water; cover and simmer till tender, about 2 hours (add more water during cooking, if needed). Drain. Combine remaining ingredients; coat ribs. Grill over slow coals 15 to 20 minutes, brushing with sauce and turning frequently. Heat remaining glaze and serve with ribs. Makes six servings.



### MARKET NEWS CHIEF HONORED

Clay J. Ritter, a market news branch chief for the Agricultural Marketing Service, received a superior service award at the U.S. Department of Agriculture's 34th annual awards ceremony recently in Washington, D.C. Ritter was honored for his outstanding service to the department in preparing timely and accurate sources of information nationwide on the trucker's strike.



### ABOUT ¼ BURN WOOD

About 526,000 households in Massachusetts—25.6 percent—burned some wood for fuel last winter.



## regional news notes

### Massachusetts

By IRVING DEMORANVILLE

There were a total of nine frost warnings issued in May—three afternoon and six evening.

The last week in the month was the problem, with warnings five of even nights. Basically, 27 to 30 degrees were the low temperatures for all of the nights. This compares with 10 warnings in 1979 and 1978, 15 in 1977, 24 in 1976 and none in 1975.

Bogs, except those badly winter-killed, are looking good and have really started to push out the last week. Most bogs should be ready for first

## BARK RIVER *Culvert and Equipment Co.*

(Wisconsin-Michigan Growers)

ALUMINUM HEADGATES FABRICATED  
TO YOUR SPECIFICATIONS  
HAND WHEEL OPERATED GATES  
ALUMINUM CORRUGATED PIPE  
INTERNATIONAL POWER UNITS  
INTERNATIONAL CRAWLER TRACTORS  
WARNER & SWASEY EXCAVATORS  
WALDON LOADERS AND USED EQUIPMENT

Eau Claire, Wis.  
715-835-5157

Escanaba, Mich.  
906-786-6920

Milwaukee, Wis.  
414-461-5440

Madison, Wis.  
608-222-4151

Green Bay, Wis.  
414-435-6676

Ironwood, Mich.  
906-932-0222



**INTERNATIONAL CONSTRUCTION EQUIPMENT**

INTERNATIONAL HARVESTER COMPANY

# Investment Scoop

## LOOKING BETTER ALL THE TIME

By MARTIN B. PERSON JR.

President, Gage-Wiley & Co. Inc.

Did you ever wonder what it would be like to have a period of time when the stock and bond markets just rolled quietly along and didn't especially excite anyone? Would you prefer to read the business news in the business section of the daily paper instead of in the front page headlines? Would you like all those "economic experts" to just talk to each other rather than be pressed to offer their opinions for everyone to cherish?

Over the past few months we have witnessed a spectacular display of record rates of interest and inflation. Everyone has been aware of the effect of these disturbing conditions because their impact is directly felt in every pocketbook. Painfully, in most instances.

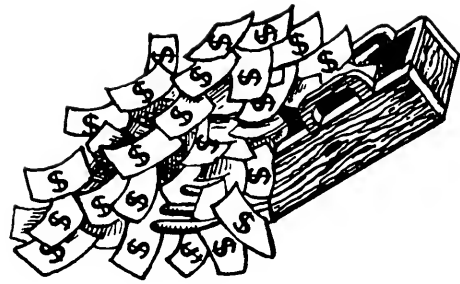
But today those interest rates have dropped, sharply in the case of short term obligations and moderately in the longer term. It is entirely reasonable to expect the inflation rate is also dropping. Now that the record setting pace is behind us, there is little reason for the media to waste time and space on headlines of economic hype. Obviously, the politicians will be

## MT. ST. HELENS . . .

(continued from page 3)

devastated nearby terrain and lakes, left many dead and missing and caused serious ash problems in Kelso and Longview, Wash., did not create any crop damage on the peninsula, according to Edie Shire of the Coastal Washington Research and Extension Unit in Long Beach.

Kay Chabot, wife of grower Jim Chabot, told CRANBERRIES "there was just a very little ash." Azmi Y. Shawa, supervisor of the Washington cranberry station, recommended that the sparse fallout be washed off with sprinklers, she said.



overjoyed to rush into any space once occupied by the jargon of economics. Personally, I will be very happy to let the toothy grins replace the somber Treasury types on the up front scene.

Meanwhile, in relative calm and quiet, we are returning to a more

normal bond market. Namely, a dull one. It positively thrives on obscurity. Who needs headlines when you are trying to raise money to run a business?

The stock market has taken inspiration from the better bond market and is quietly building.

## WISCONSIN CRANBERRY HEADQUARTERS FOR



EVITAL • SOLO • DIQUAT  
2-4-D • DOWPON • ETHREL  
SEVIN • PARATHION • GUTHION • DIAZINON  
KOCIDE • DIFOLITAN • FERBAM  
COPPER SULFATE • PRINCEP

## Cole Chemical Supply

DIVISION OF *Hopkins* AGRICULTURAL CHEMICAL CO  
P.O. BOX 7211, MADISON, WISCONSIN 53707  
608-221-1581

## Niemi Electric Co.

ROBERT NIEMI

## ELECTRICAL CONTRACTORS

HEAT, LIGHT and POWER WIRING

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL



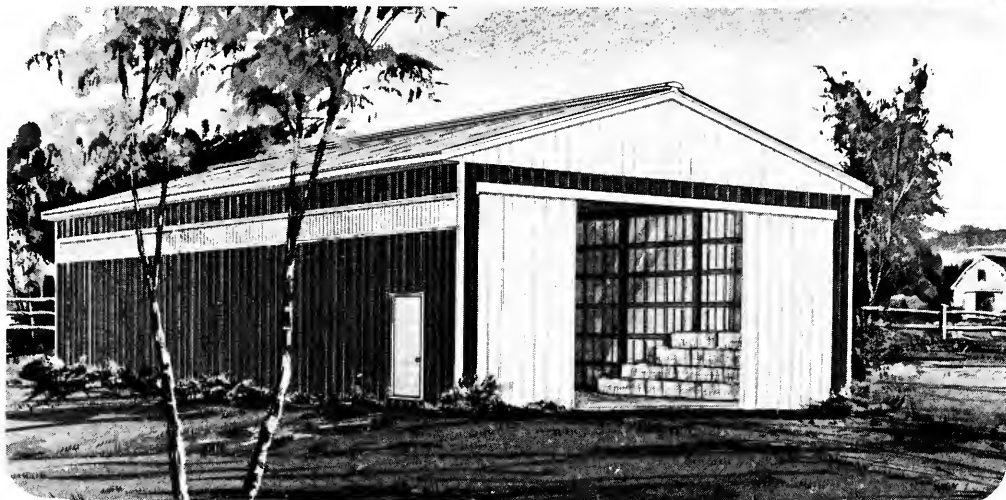
TEL. 295-1880

Robert Niemi

Pinchurst Dr.

Wareham, Mass.

# AGWAY



## BEAT INFLATION...

### Buy An AGWAY Package Building NOW!

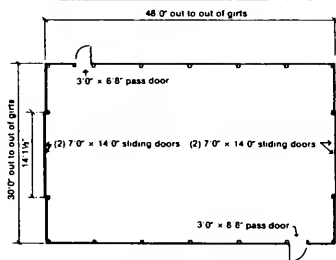
(CONSTRUCTION TO BE HANDLED BY YOU OR YOUR CONTRACTOR.)

The price quoted by Agway is guaranteed for 90 days after signing the contract and covers all materials needed except plumbing, heating, electrical supplies, concrete floor, insulation and interior finishing products.

#### PACKAGE INCLUDES:

- BLUEPRINTS designed to comply with most building codes.
- MATERIAL SPECIFICATIONS LIST.
- GUARANTEED ADEQUATE SUPPLY OF MATERIALS TO COMPLETE THE BUILDING when blueprints & specifications are followed.
- PLANNING ASSISTANCE including help with developing a total budget for the building: site cost, site preparation, electrical, plumbing, water, etc.

**FINANCING AVAILABLE** through Telmark, Agway's own financing company. Ask your salesperson for details.



### The 30/48 Storage

30' x 48' x 16'

General purpose building. Ideal for: • farm equipment • crop storage • tractors • fertilizer storage • seed storage • fencing supplies • pesticides • snow blades, seasonal equipment

FROM \$8,300

## AGWAY BUILDING MATERIALS

15 Washington St., Rte. 53  
PEMBROKE—Tel: 826-5171



New Store Hours Are: Mon., Tues., Wed., Thurs., Fri., 7:30-4:30. Sat., 8:00-4:30

## IN MASSACHUSETTS

### THEFT, VANDALISM ARE GROWING PROBLEMS

The increasing problems of theft and vandalism received a thorough airing at a recent meeting of 11 officers and directors of the Cape Cod Cranberry Growers Assn. in the Massachusetts Cranberry Experiment Station

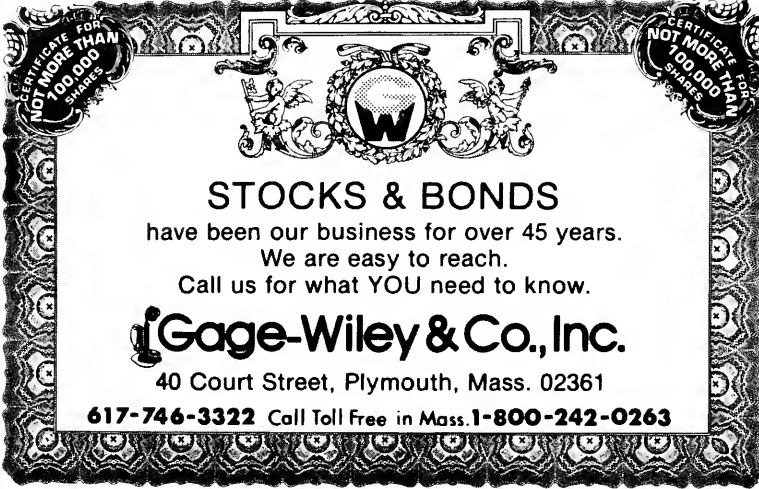
in East Wareham.

Doug Beaton was named chairman of a reward subcommittee. Members are George Andruk, Bob St. Jacques and Arthur Handy.

"Any ideas regarding this matter are welcomed and encouraged and should be passed on to Doug Beaton and other members of his subcommittee,"

says John C. Decas, association president.

(continued on next page)



**STOCKS & BONDS**  
have been our business for over 45 years.  
We are easy to reach.  
Call us for what YOU need to know.

**Gage-Wiley & Co., Inc.**  
40 Court Street, Plymouth, Mass. 02361  
**617-746-3322** Call Toll Free in Mass. **1-800-242-0263**

## FOR SALE

'78 Int. Scout 11.  
Four cylinder. Four speed std. Locking hubs for four wheel drive. Blue and white. AM radio. Power steering. 34,000 miles. Excellent condition. Never on beaches. Demonstrate any day or night. Call or write Bill Richards, Box 500, Forestdale, Mass. 02644. Tel. 477-0234.

**AGWAY**

## Agway 12-24-12 Cran-Best

This product is an ammoniated, granulated fertilizer containing all three major plant food elements in each granule, not to be confused with the dry blended fertilizer being sold.

Don't guess on fertilizer, know what you are getting. Be sure. Use AGWAY 12-24-12 Cran-Best.

AGWAY 12-24-12 Cran-Best is available at the following stores:

Robert Alberghini  
Carver, MA  
617-866-4429  
New Bedford Agway  
New Bedford, MA  
617-997-0093

Cape Agricultural Supply Inc.  
Sandwich, MA  
617-888-0044

Pilgrim Agricultural Supply Inc.  
Plymouth, MA  
617-746-0970  
Merle Stetson  
E. Taunton, MA  
617-822-6748



Among other matters, the board reaffirmed its determination that the provisions of 1A (farmland assessment laws) apply to cranberry properties as it does to all other agricultural properties throughout Massachusetts.

The board instructed David Mann to ask the law firm of Hale and Dorr that represents the association to meet with the board on the morning of the annual meeting Aug. 19 and then speak briefly to the membership in the afternoon.

The board asked the subcommittee on mechanization to develop and distribute to growers rules for the machinery contest at the annual meeting.

The board heard that the wetland ecology leaflet was in the formative stage.

The officers and directors noted:

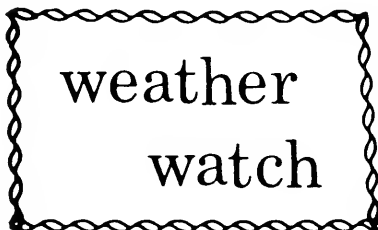
1—that 25,000 square feet of land behind the Cranberry station that belongs to the

association be transferred to the University of Massachusetts trustees when the work on Route 25 is completed.

2—that \$20,000 in treasury bills be renewed for another 90 days.

3—that Louis Fachetti be hired to audit the books of the association this year.

There was agreement that Dr. Chester E. Cross, station director, should select the guest speaker from among several names that were suggested.



### MASSACHUSETTS

May was cool and dry.

The temperature averaged 0.8 degree below normal for the month.

Maximum temperature was 84 degrees on the 22nd and the minimum was 38 degrees on the 3rd. Cooler than average periods were the 1st-3rd, 7th-9th, 11th and 21st. The only warmer than average days were the 22nd, 23rd and 25th.

Rainfall totaled only 1.54 inches, nearly 2 inches below normal. There was considerable precipitation on 10

(continued on next page)

## CRANBERRY GROWERS REALTY

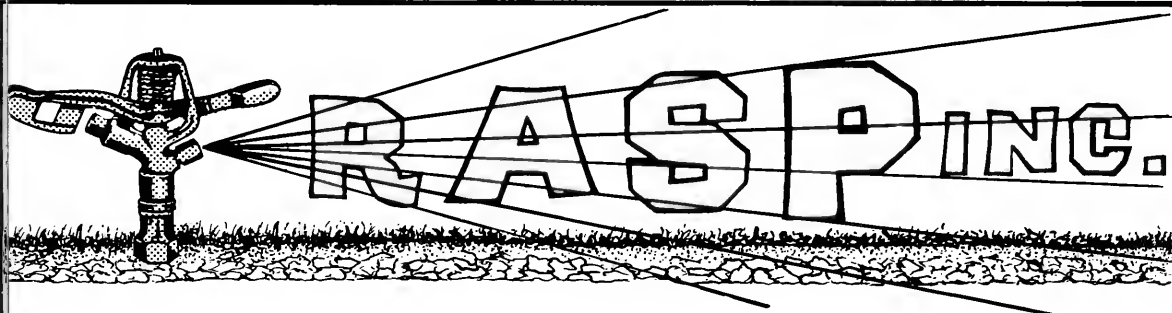
Listings of buyers and sellers welcomed on cranberry acreage and upland.

Appraisals

DOUGLAS R. BEATON

E. Sandwich, Mass.  
02537

(617) 888-1288



**AUTHORIZED AGWAY REPRESENTATIVE**

**LICENSED SPRAYING OF PESTICIDES (Seasonal)**

**WITH A COMPLETE LINE OF:**

**CRANBERRY INSECTICIDES • FUNGICIDES  
HERBICIDES • MITICIDES • and FERTILIZERS  
IN STOCK!**

**ROBERT A. ALBERGHINI — SPRAYING  
RFD 5 PLYMOUTH STREET, CARVER, MASS. 02330**

**TELEPHONE: 866-4429**

**For further information, call evenings after 5:30**

**AGWAY**

**AGWAY**

(continued from preceding page)

days but 0.61 inch on the 21st was the greatest amount from a single storm. This was the driest May since 1964 and the fifth driest in our records. We are 5½ inches below normal for the five month period and about 15½ inches behind 1979 for the period.

I.E.D.

### NOVA SCOTIA

The critical period in our weather during May was the nights of May 24 and 25 when the temperature dropped to zero degrees C at Kentville. Fortunately, crops like apples had not reached full bloom and injury to date appears minimal. Further north in Cumberland County there is considerable frost injury to strawberry blossoms. Lowbush blueberry blossoms apparently were not far enough advanced to be affected.

I.V.H.

### WISCONSIN

Temperatures during the last week in May were 7 degrees above normal. Rain scarcity was a problem during the month.

Wisconsin Agriculture  
Reporting Service

### READ THAT LABEL

It's an obvious rule.

But it's a rule that the Oregon State University Extension Service believes must be stressed. The rule? *Read that label!*

Says the Extension Service: "The first guide in the safe use of pesticides is to thoroughly read the label on each container before each use and follow the directions given."

It continues: "If you are in doubt after reading the label as to the proper use of the pesticide, contact a qualified person such as your county extension agent or chemical company representative for assistance."

All pesticides should be handled with care, the agency warns. But even the most hazardous can be used with safety if recommended precautions are followed, it adds.

"The organophosphorous insecticides—Parathion and

Guthion—are extremely poisonous and require special warnings," the agency says.

## SPRINKLER HEADS FOR SALE USED

Final clearance!  
Forty seven no. 70  
Rainbird sprinkler  
heads. Good operating  
condition. All or any  
part \$10 each.

Veg Acre Farms,  
Box 500, Forestdale,  
Mass. 02644 or  
telephone 477-0234

A MOST COMPLETE INVENTORY OF  
IRRIGATION ACCESSORIES



# LARCHMONT

ENGINEERING & IRRIGATION, INC.

P.O. Box 66, 11 Larchmont Lane, Lexington, MA 02173 (617) 862-2550

IRRIGATION EQUIPMENT DESIGNED ESPECIALLY  
FOR THE CRANBERRY INDUSTRY

FOR EXAMPLE:

*Gorman-Rupp Self Priming Electric Sprinkler Pumps*  
*Proven Quick Couple Riser*  
*Ingersoll-Rand Water Harvest Pumps*  
*Aluminum Insert Coupling For 4" Poly Pipe*

Contact:

Larchmont Engineering  
Phil Tropeano, President  
(617) 862-2550 (Call Collect)



Contact:

Bill Stearns, Plymouth, Mass.  
(617) 746-6048  
(617) 746-2610



# HAVE YOU MISSED THESE ARTICLES?

*Cranberry Magazine's Reader's Service makes available copies of the articles listed below which have appeared in past issues. Order the articles you want to update your library. Please send cash or check with each article requested. ORDER BY NUMBER.*

## TECHNICAL ARTICLES

868	Sprinkler Frost Protection, Parts I, II, III . . . . .	8.00
469	Chemical Color Enhancement of Cranberry Fruit . . . . .	1.75
569	Increasing Yields by Controlling Weeds in Nova Scotia . . . . .	1.25
971a	Cranberry Growth as Related to Water Levels in the Soil . . . . .	1.25
1171	Sevin, DDT and the Gypsy Moth . . . . .	2.00
1271a	Seed Germination in Cranberry . . . . .	1.25
172	Water Harvest Procedures & Quality of Early Blacks in Mass. . . . .	1.25
372a	Recent Tests with Fertilizer Supplements . . . . .	1.50
472	Spreader Reel for Cranberry Bog Sanders . . . . .	1.25
672	Phosphorus Removal Calculated in Oregon . . . . .	1.25
672a	Honeybee Populations and Fruit Set in Cranberry . . . . .	1.25
772	Surface Water Quality in Drainage Areas of Cranberry Bogs . . . . .	1.25
872	Cranberry Production and Water Quality . . . . .	1.25
1172	Development of a New Cranberry Harvester . . . . .	2.00
1272	Gel Power Index of Cranberries . . . . .	1.75
173	An Evaluation of Difolatan in Massachusetts . . . . .	1.25
273	Effects of Continued Casoron Treatments . . . . .	1.25
573	Insecticide Toxicity to Honey Bees . . . . .	1.25
673	Prolonging the Life of Harvested "McFarlin" Cranberries . . . . .	1.50
773	Tolerance of Cranberries to the Experimental Herbicide San-9789 . . . . .	1.50
1073a	An Analysis of the DDT Controversy . . . . .	3.00
369b	Growth of Cranberry Plants in Pure Sands and in Weedy Areas under Nova Scotia Conditions . . . . .	1.75
769	Pesticide Use in Massachusetts Cranberries . . . . .	1.25
1069	Resanding of Massachusetts Bogs (Parts I & II) . . . . .	2.50
1269a	Malathion Hastens Maturity of Highbush Blueberry Fruit . . . . .	1.50
270	Reduced Chilling Requirement of McFarlin Cranberry Buds . . . . .	1.25
370a	Photo Period Effect on Plant Growth in Cranberry . . . . .	1.50
570a	Cranberry Diseases in Nova Scotia . . . . .	1.75
570b	Cranberry Pollination . . . . .	1.25
770a	Effect of Herbicides on Vital Plant Systems . . . . .	2.00
1070a	Evaporation Cooling (Parts I & II) . . . . .	4.00
1170a	Nova Scotia Cranberry Insects . . . . .	1.75
1270a	Progress in Controlling Bird Damage to Crops . . . . .	1.50
171	Cranberry Bog Microclimate . . . . .	2.00
371a	Oxygen Deficiency Kills Cranberry Insects . . . . .	1.50
371b	Summer Spray Application of Phosphorus . . . . .	1.50
471a	Biological and Integrated Control of Cranberry Insects . . . . .	1.50
274	Effect of Light on Cranberry Seed Germination . . . . .	1.25
374	Effect of Temperature on Germination of Cranberry Seeds . . . . .	1.25
674	2,4,5-T Story . . . . .	1.50
874	Timing Cranberry Herbicide Application . . . . .	1.25
175	Control of Fairy Ring—Progress Report . . . . .	1.25
275	Analyses of Cranberry Marsh Discharge Waters—Progress Report . . . . .	1.75
675	Review of Cranberry Weed Control . . . . .	1.50
477	Dearness Scale, Vine Pest—Parts I, II, III, IV . . . . .	6.50
976	Response of Cranberry Bogs to Sulfur-Coated Urea . . . . .	1.75

# 1930 - 1980 50 YEARS OF SUCCESSFUL COMMITMENT

- To handling members' crops — all year, every year
- To developing and expanding the market for members' crops — nationally and internationally
- To generating consumer acceptance of the Ocean Spray trademark as the standard of excellence for the industry
- To increasing grower returns at a rate consistent with long-term stability and growth

Ocean Spray: the handler of choice now  
— and for the years ahead



Ocean Spray Cranberries, Inc., Plymouth, MA 02360



# CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

Vol. 44, No. 8

August 1980



**Golden anniversary . . . 3**



**Rail buff's dream . . . 8**

Library UMass  
Serials Section  
Amherst MA 01002



**We carry a complete inventory  
of **CRANBERRY**  
insecticides, fungicides,  
fertilizers and herbicides**



YOUR YEAR-ROUND SERVICE CENTER

CRANBERRY HIGHWAY\*WEST WAREHAM, MASSACHUSETTS 02576\* (617) 295-1553

## **A capsule history**

# **Ocean Spray has 50th anniversary**

*The flashbulb and yellow fever vaccine came into being. The Naval Reduction Treaty was signed by the U.S., Britain, Italy, France and Japan but France started building the Maginot Line. Max Schmeling was the world heavyweight champion and Gallant Fox won the Preakness, Belmont Stakes and Kentucky Derby. People walked about humming Georgia on My Mind, I've Got Rhythm, Three Little Words and Walking My Baby Back Home. About 40 percent of Americans lived without a bathtub or shower, lunch at a good*

*restaurant cost about 50 cents and you could buy a summer suit for less than \$10.*

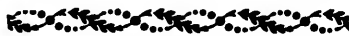
*Hoover was in a dither about what to do about the deepening Depression and the American people were getting queasy over the sight of breadlines. In the Southwest, a devastating drought*

*was destroying crops and cattle. The year was 1930.*

*It was a year that was to have a significant impact on "the ruby of the bog."*

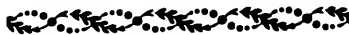
**ON AUG. 14, 1930** was born Cranberry Canners Inc., a cooperative created from the merger of Ocean Spray Preserving Co. of South Hanson, Mass., the A.D. Makepeace Co. of Wareham, Mass., and Cranberry Products Inc. of New Egypt, N.J. Cranberry Canners later became the National Cranberry Association and, finally, Ocean Spray Cranberries Inc.

*(continued on following page)*



### **COVER ART**

**THE LOGO** used by Ocean Spray in connection with the celebration of the cooperative's 50th anniversary.



## **History in photos**



**IN 1912** the berries for Ocean Spray cranberry sauce were unloaded at this packing house in Hanson, Mass.

## OCEAN SPRAY . . .

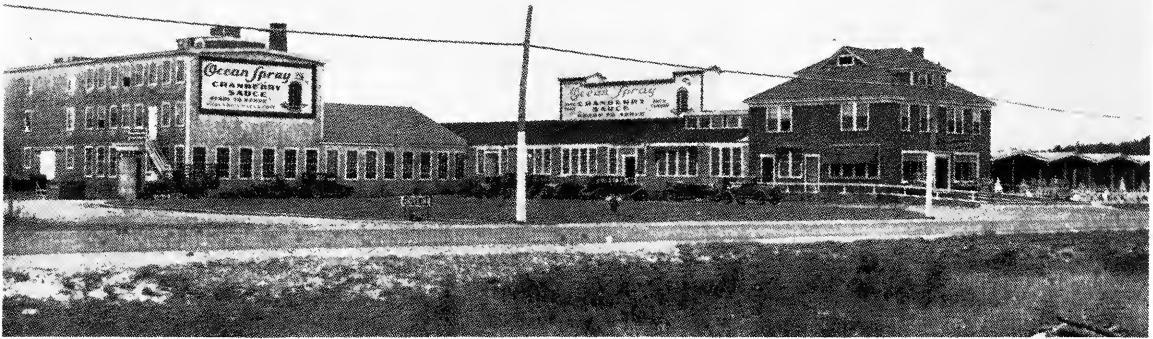
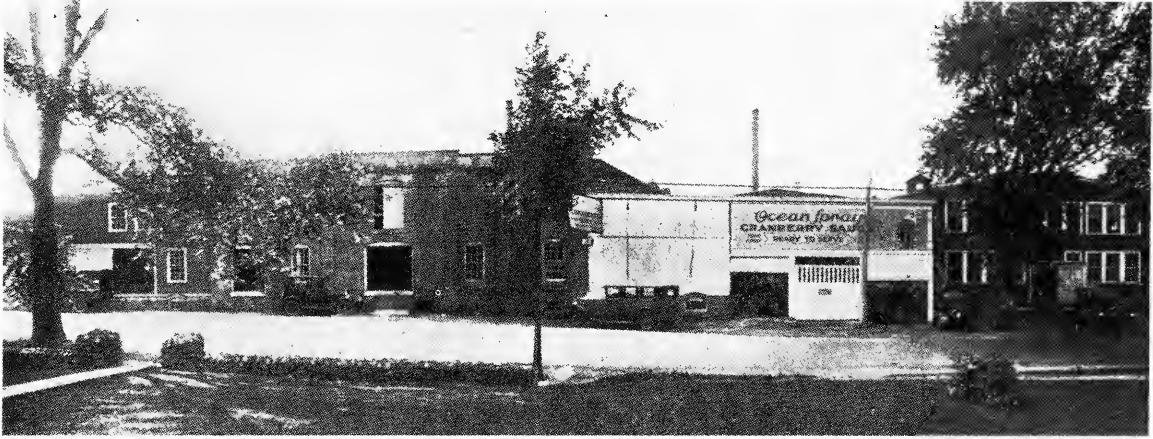
(continued from preceding page)

The original Ocean Spray Cape Cod Cranberry Sauce, "strained and sweetened," and first packed in cans in Hanson,

Mass., in 1912, was the source for the name of the cooperative that has stuck to this day. The sauce had been developed by Marcus L. Urann, a Boston lawyer who, in his spare time,


had begun buying up cranberry bogs in Plymouth County. A resolute, hard driving pragmatist, who combined industry with enterprise, Urann became bilious

(continued on page 6)



AT THE TOP is the old plant in Hanson, Mass., and at the bottom is the second plant in Onset, Mass.

INVESTMENT FOR  
NOT MORE THAN  
100,000  
SHARES



STOCKS & BONDS  
have been our business for over 45 years.  
We are easy to reach.  
Call us for what YOU need to know.

**Gage-Wiley & Co., Inc.**  
40 Court Street, Plymouth, Mass. 02361  
**617-746-3322** Call Toll Free in Mass. **1-800-242-0263**

INVESTMENT FOR  
NOT MORE THAN  
100,000  
SHARES

## CRANBERRY GROWERS REALTY

Listings of buyers and  
sellers welcomed on cran-  
berry acreage and upland.

Appraisals

**DOUGLAS R. BEATON**

**E. Sandwich, Mass.  
02537**

(617) 888-1288



# editorial



## A proud achievement

In this century of rapid change, fewer are accorded an opportunity to celebrate a 50th anniversary, be they brand names, countries or couples.

Remember the Cord? Modern day Estonia and Latvia only were granted 22 years each. Richard and Liz never made their silver anniversary. One can go on and on.

Ocean Spray Cranberries Inc. has reached its 50th year. For this reason alone, it deserves hearty congratulations. Another pat on the back is warranted when you consider that it's healthier than it's ever been.

Oh, not everybody regards Ocean Spray with affection. Its very share of market would draw critics, especially from rivals bruised in the competitive fray. And you might argue that the cranberry would have attained the stature it has and have given birth to the variety of products it has without Ocean Spray. But that's far from a sure bet.

Whatever else can be said, a considerable amount of marketing genius, business ingenuity and plain hard work has resided in the cooperative, from the days of Urann and Makepeace to the present. How else explain such monumental success, both financially and in quality and variety of product?

Happy birthday Ocean Spray. May you enjoy many more of them.

## Baldwin Excavators



Specializing in  
Agricultural Construction

Mert Howes  
295-5542

Fred Locke  
866-2639

COUNTY ROAD  
W. WAREHAM, MASS.  
02576

Flumes  
Canals  
Land clearing  
Sanding  
Water holes  
Ditching  
Dikes  
Grading

## EXAM DATES GIVEN

Examinations for private applicator licenses for restricted pesticides use will be given Aug. 5 at the Suburban Experiment Station, 240 Beaver St., Waltham, Mass.

The Farley 4-H Clubhouse at the University of Massachusetts, Amherst, will be the site of examinations Aug. 15.

## CRANBERRIES

THE NATIONAL CRANBERRY  
MAGAZINE

—Our 44th Year of Publication—

VOLUME 44—No. 8  
August 1980

Send correspondence to:

P.O. Box 249  
Cobalt CT 06414

Phone: (203) 342-4730

Bob Taylor, Publisher/Editor

### ADVISORS, CORRESPONDENTS

Massachusetts—Dr. Chester E. Cross, Director, Massachusetts Cranberry Experiment Station; Irving Demoranville, Extension Cranberry Specialist, Massachusetts Cranberry Station; Michael Couture, East Wareham, Mass.

New Jersey—Philip E. Marucci, Cranberry and Blueberry Specialist, Cranberry and Blueberry Laboratory, Chatsworth, N.J.; Mary E. Archibald, Collingswood, N.J.

Nova Scotia—I.V. Hall, botanist, Research Station, Kentville, N.S.

Oregon—Arthur Poole, Coos County Extension Agent, Coquille, Ore.

Washington—Azmi Y. Shawa, Associate Horticulturist and Extension Agent in Horticulture, Extension Unit, Long Beach, Wash.

Wisconsin—Vernon Goldsworthy, Eagle River, Wisc.; Tod D. Planer, Farm Management Agent, Wood County, Wisc.; Joan E. Humphrey, Friendship, Wisc.

CRANBERRIES is published monthly by the Taylor Publishing Co., Wellwyn Drive, Portland CT 06480. Second class postage is paid at the Portland, Conn., Post Office. Price is \$8 a year, \$15 for two years, 80 cents a copy in the U.S.; \$9 a year in Canada; \$10 a year in all other countries. Copyright 1980 by Taylor Publishing.

ISSN: 0011-0787

## OCEAN SPRAY . . .

(continued from page 4)

at the sight of fresh berries rotting in the sun for want of a market. Hence, the idea of processing the berry into sauce.

Urann invented the recipe, stirred the first batch, designed the label, canned the product and

sold it. He became the first president of Cranberry Cannery, a post he held until his retirement in 1955. John Makepeace, first secretary-treasurer of the cooperative, retired two years later. The current president of the cooperative is Harold Thorkilsen.

The marketing of processed berries—the brainchild of Urann—dovetailed well with a growing

interest among women in prepared foods in order to reduce household chores and pursue jobs and interest outside the home.

**OCEAN SPRAY** Cranberries, now some 800 members strong in the U.S. and Canada and with plants throughout the U.S., has been engaging in a year long celebration of its Golden Anniversary. Nine of the world's most

(continued on the next page)

# DIRECTORY for Cranberry Growers

## The CHARLES W. HARRIS Company

451 Old Somerset Avenue  
North Dighton, Mass.  
Phone 824-5607

**AMES**  
*Irrigation Systems*  
**RAIN BIRD**  
*Sprinklers*  
**HALE**  
*Pumps*

Highest Quality Products  
with Satisfaction Guaranteed

## Farm Credit Service

Box 7, Taunton, Mass. 02781  
Tel. 617-824-7578

•  
PRODUCTION CREDIT LOANS  
LAND BANK MORTGAGES

Office — on Route 44  
1/4 Mile West of Rt. 24



THOSE AREN'T CRANBERRY STEMS: Kay Pepin of Brockton, Mass., was Miss Cranberry Scoop Hairdo of 1957. (Photo by Stanley Bauman)



**PRESIDENT Eisenhower** couldn't persuade the turkey to eat cranberries. To the far left was Miss Ellen Stillman, vice president of Ocean Spray Cranberries, which then was called the National Cranberry Assn.

celebrated chefs—eight from Europe and one from Japan—were commissioned to create original recipes using the berry. Ocean Spray figured heavily in Macy's traditional Thanksgiving Day Parade with a spectacular float. And, among other happenings, Cranberry World, the museum which adjoins the cooperative's modern, three year old headquarters in Plymouth, Mass., is featuring special exhibits and events.

**AS IS THE CASE** with all major business ventures, existence for Ocean Spray hasn't been all smooth sailing. First of all, there were conflicts among the early parties to the merger, as well as

(continued on page 10)

## Niemi Electric Co.

ROBERT NIEMI

ELECTRICAL CONTRACTORS

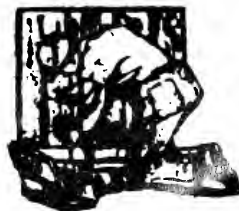
HEAT, LIGHT and POWER WIRING

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL

TEL. 295-1880

Robert Niemi Pinchurst Dr.

Wareham, Mass.



## Owner fulfills lifelong dream

# Edaville grows as tourist attraction

By MICHAEL COUTURE

Once a working cranberry hauling railroad located in the heart of cranberry country in Massachusetts, Edaville Railroad is now a growing tourist attraction.

Visitors from throughout New England and other parts of the country have come by the thousands to see this Carver site.

Owner George Bartholomew saw some mighty lean years after the oil embargo struck in 1973 but starting with last year's Christmas holiday season, crowds began to surpass any that he has seen since he bought

the attraction in 1970.

A TRAIN buff since he was 2-years-old and lived across the street in Boston from an engineer for the Boston and Albany line, Bartholomew has had a lifelong love for railroads and locomotives. He hasn't let it die.

His dad was a professor at MIT, with summers free. At that season, Bartholomew visited his grandfather in Wareham. The grandfather, a cranberry grower, knew Ellis D. Atwood, the well known cranberry grower who had started the rail line.

Like Bartholomew, Atwood was a rail enthusiast. He figured the line would carry freight and berries around his 1,800 acre

cranberry plantation in Carver. Track was laid in 1945.

Before the project was finished, however, Atwood began taking friends and relatives on short trips. One of the passengers was a 4-year-old boy named George Bartholomew. Bartholomew became fascinated with the sight of a railroad running through the scenic bogs.

Finally opened formally in 1947, the railroad—named the Cranberry Belt Line—hailed sand in the winter for the peat bogs, carried the berry harvest to the screen house and carried equipment and workers. When people found out about the



**Bog construction**

**Vine setting**

**Flumes and flume work**

**Bog sand**

**Nemasket Construction Co., Inc.**

**275 Wareham St., Middleboro MA 02346**

**(617) 947-1723**



**STANDING** beside his chugging giant is George Bartholomew, owner of the Edaville Railroad.

ailroad, they eagerly approached Atwood for rides. A passenger service was started to take care of the many requests.

**THUS BEGAN** the attraction that charms visitors and families, many of whom return yearly for the holiday season trip. Some came years ago and now bring their children.

Part of the allure is the locomotives, which date back as far as 1913. Functioning magnificently, the locomotives are driven by steam and have a fireman standing by to shovel coal into the furnace box.

They are remindful of the old movies featuring trains of a bygone era. They also bring back the mystique of an adventurous time when the engineer was hero and Casey Jones became a legend.

magic of the chugging giant, Bartholomew worked summers at Edaville and ended up getting his steam engineer's license at 18, becoming one of the youngest individuals ever to achieve this honor.

During this time, Atwood died in a tragic home accident and Nelson Blount of Rhode Island purchased the line. Blount also bought up all the railroad

(continued on page 14)

**BARK RIVER** *Culvert and Equipment Co.*

*(Wisconsin-Michigan Growers)*

- ALUMINUM HEADGATES FABRICATED TO YOUR SPECIFICATIONS**
- HAND WHEEL OPERATED GATES**
- ALUMINUM CORRUGATED PIPE**
- INTERNATIONAL POWER UNITS**
- INTERNATIONAL CRAWLER TRACTORS**
- WARNER & SWASEY EXCAVATORS**
- WALDON LOADERS AND USED EQUIPMENT**

<b>Eau Claire, Wis.</b> 715-835-5157	<b>Escanaba, Mich.</b> 906-786-6920	<b>Milwaukee, Wis.</b> 414-461-5440
<b>Madison, Wis.</b> 608-222-4151	<b>Green Bay, Wis.</b> 414-435-6676	<b>Ironwood, Mich.</b> 906-932-0222

**INTERNATIONAL CONSTRUCTION EQUIPMENT**  
INTERNATIONAL HARVESTER COMPANY

**LURED AS A YOUTH** by the



## OCEAN SPRAY . . .

(continued from page 7)

later joiners. Government agencies have poked, probed and prodded the cooperative in search for anti-trust violations.

Although he had been in grave doubts about the cooperative surviving its first year, John R. Quarles, the original counsel for the cooperative and its unofficial historian, once suggested that Ocean Spray thrived because it gave "attention to finding special ways to help

the growers and advance the industry generally."

In an address he gave on the 30th anniversary of the cooperative, Quarles cited some of those ways: "the financing of bogs and crops by loans, directly and through Cranberry Credit Corporation (organized 8/10/42); the development of dusting by helicopter and airplanes, including the ownership and operation of the early helicopter service; the promotion and development of mechanical harvesting, including

the financing of the Western Picker; the purchasing of equipment and supplies principally through the Trading Posts; and advice and services relating to methods of culture, handling and shipment, principally through the Grower Service Department."

Following a period of excess supply and lessened demand—largely a result of the notorious "cranberry scare" of 1959—the cooperative took a number of steps to revive the industry, including a host of new products, an improvement of existing products, modernized production, an aggressive marketing program and strong emphasis on research and development and quality control.

Among other more recent highlights in the history of Ocean Spray has been the inclusion of grapefruit growers in the cooperative starting in 1976.

Last year was a record breaker. The cooperative had its most successful sales year yet. Ocean Spray also saw its canned and bottled juices become the nation's leading juice product.

The cranberry cooperative was ranked 86th in Fortune Magazine's listing of the top U.S. food manufacturing companies, a lofty position when you consider that the ranking includes multi-food businesses as well as companies manufacturing foods that are generally considered staples in the diet.

Also, Ocean Spray achieved a new benchmark for modern day industry: lengthy, eye-catching and polished commercials on prime time TV.

**EMPHASIS** in the 1980's is on further growth.

Said Andrew J. Murray, vice president of sales, recently:

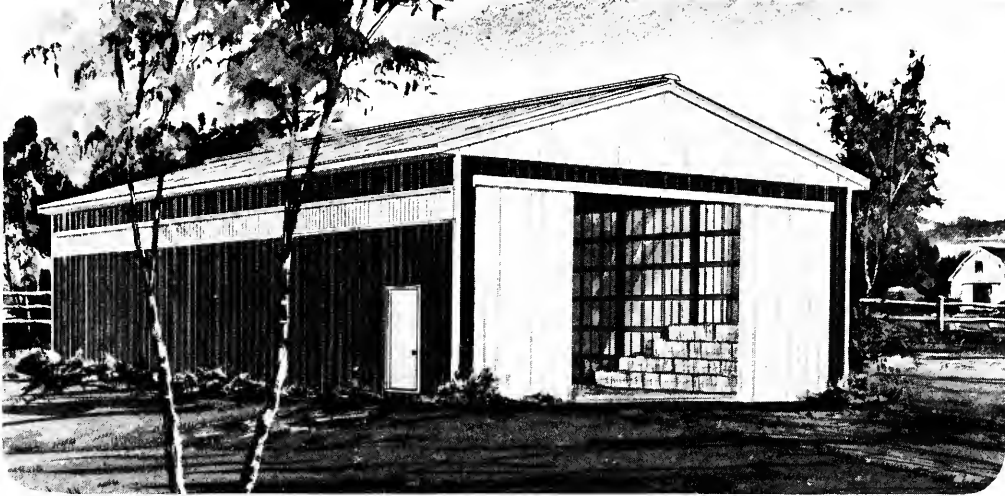
"Increased productivity is

(continued on page 12)



THIS landmark used to be on display at a cranberry stand in Onset, Mass.

# AGWAY



## BEAT INFLATION...

### Buy An AGWAY Package Building NOW!

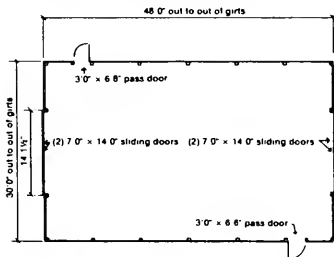
(CONSTRUCTION TO BE HANDLED BY YOU  
OR YOUR CONTRACTOR.)

The price quoted by Agway is guaranteed for 90 days after signing the contract and covers all materials needed except plumbing, heating, electrical supplies, concrete floor, insulation and interior finishing products.

#### PACKAGE INCLUDES:

- BLUEPRINTS designed to comply with most building codes.
- MATERIAL SPECIFICATIONS LIST.
- GUARANTEED ADEQUATE SUPPLY OF MATERIALS TO COMPLETE THE BUILDING when blueprints & specifications are followed.
- PLANNING ASSISTANCE including help with developing a total budget for the building: site cost, site preparation, electrical, plumbing, water, etc.

**FINANCING AVAILABLE** through Telmark, Agway's own financing company. Ask your salesperson for details.



### The 30/48 Storage

30' x 48' x 16'

General purpose building. Ideal for: • farm equipment • crop storage • tractors • fertilizer storage  
• seed storage • fencing supplies • pesticides  
• snow blades, seasonal equipment

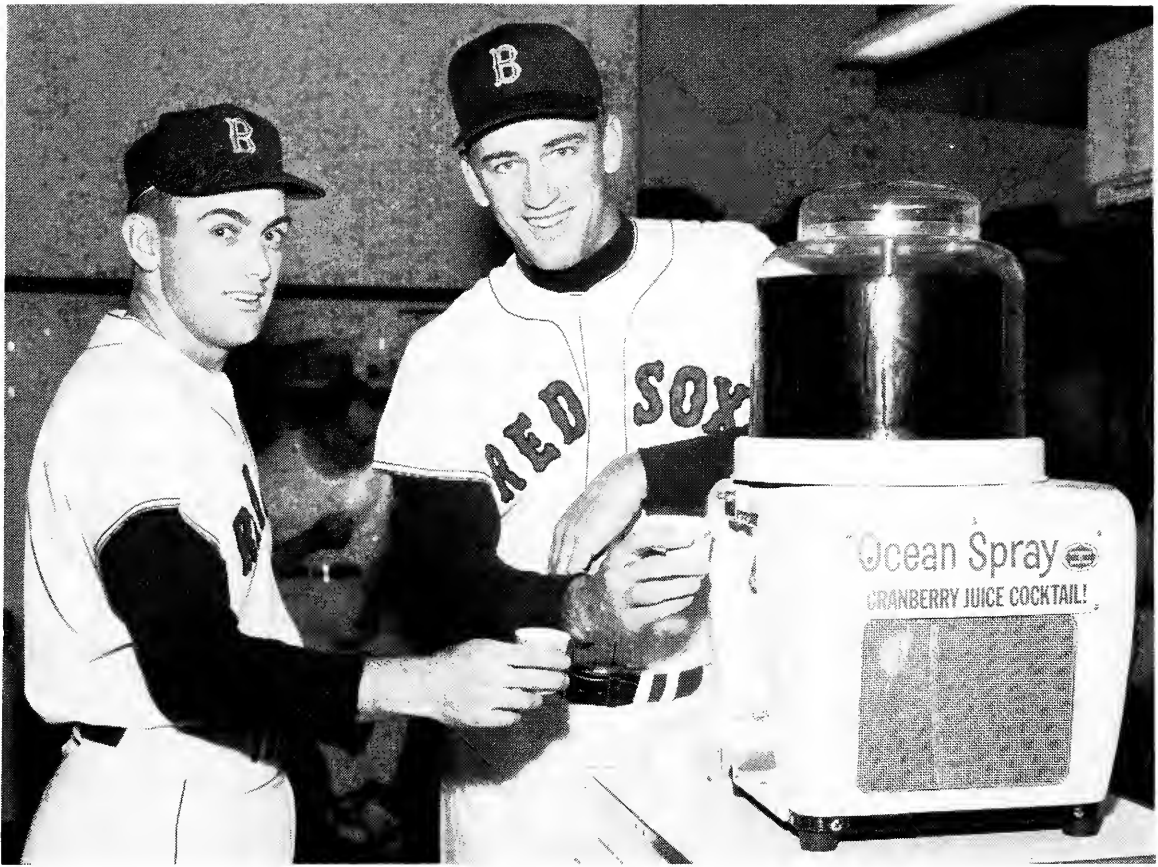
FROM \$8,300

## AGWAY BUILDING MATERIALS

15 Washington St., Rte. 53  
PEMBROKE—Tel: 826-5171



New Store Hours Are: Mon., Tues., Wed., Thurs., Fri., 7:30-4:30. Sat., 8:00-4:30



RED SOX players Chuck Schilling and Bob Tillman quenched their thirsts with some Ocean Spray cranberry juice cocktail during Cape Cod Day at Fenway Park in Boston in 1963.

OCEAN SPRAY . . .

(continued from page 10)

needed in all phases of our operation; but in none more important than the grower level. New acreage must be planted. Current yields must be increased."

regional  
news

notes

**Massachusetts**

By IRVING DEMORANVILLE

The 93rd annual meeting of the Cape Cod Cranberry Growers Assn. will be held at the Cranberry Station on Tuesday, Aug. 19 at 10 a.m.

(continued on the next page)

FOR BANKING SERVICE  
AND CONVENIENCE  
UNSURPASSED IN  
YOUR COMMUNITY.

THE  
NATIONAL BANK  
OF WAREHAM

<u>Marion</u>	<u>Wareham</u>	<u>Carver</u>
36 Main St.	237 Main St.	Main & Center Sts.
	295-2100	

MEMBER F.D.I.C.



## REGIONAL NEWS . . .

(continued from preceding page)

The program will consist of equipment displays, exhibits, tour of the state bog and a chicken barbecue lunch.

In the afternoon there will be a short business meeting, committee reports and the official crop estimate by the Crop Reporting Service.

Guest speaker will be Dr. Henry Koffler, chancellor of the University of Massachusetts, Amherst.

Also, there will be a cranberry equipment contest for commercial and non-commercial machinery.

\*\*\*\*

Reports and observations indicate an extremely heavy bloom in comparison with the ones in recent memory.

There was considerable winterkill injury—which is not very noticeable now—but the injured areas will vary greatly in the crop produced.

There has been a little vine and blossom injury from the hot days on June 24, 25 and 27. Also, some injury from drought associated with the heat.

The weather has been relatively good for pollination and bogs appear to be setting fast.

The winterkill and injury from heat and dryness have lopped off a considerable number of potential barrels—perhaps 50,000-70,000—which is cause for concern about the total crop. However, the early condition of bogs showed a real prospect of a record crop in 1980 and, at this time, we have great expectations for this to happen.

\*\*\*\*

Dr. Bert Zuckerman recently spent five weeks in Israel with a biomembrane research group at the Hebrew University Medical School, Jerusalem.

The Israeli group has uncovered clues as to the way that macrophages in human blood seek out and destroy bacterial invaders. Dr. Zuckerman is trying to apply these findings to understanding how soil insects and nematodes find plant roots.

In both cases, the key seems to be special membrane proteins which can detect chemical signals given off by other organisms.

Dr. Zuckerman's work was supported by a Massachusetts professional development grant.

\*\*\*\*

Dr. Karl Deubert attended the 14th Annual Conference on Trace Substances in Environmental Health

in Columbia, Mo., from June 2-7. He presented a paper on PCB's.

Karl also met with representatives of Monsanto Chemical Co. in St. Louis for discussions on Roundup laboratory analyses.

## Washington

By AZMI Y. SHAWA

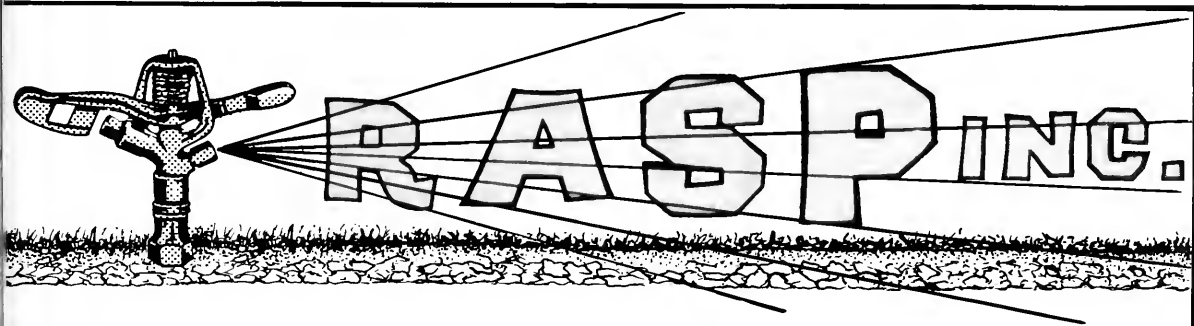
About 140—a larger crowd than expected—came to breathe the "clean" air and enjoy the fellowship and expertise shared at the annual Cranberry Field Day at the Coastal Washington Research and Extension Unit in Long Beach.

The sun came out following the smoke-bake salmon lunch and the participants enjoyed the ideas, discussion and program.

Dr. Art Antonelli, extension entomologist, Western Washington Research and Extension Center, spoke on bee poisoning.

Dr. Carl Shanks Jr., entomologist, Southwestern Washington Research Unit, Vancouver, spoke on entomological research on cranberries.

Chuck Henry of the Stauffer Chemical Co. gave a slide presentation.



AUTHORIZED AGWAY REPRESENTATIVE

LICENSED SPRAYING OF PESTICIDES (Seasonal)

WITH A COMPLETE LINE OF:

CRANBERRY INSECTICIDES • FUNGICIDES  
HERBICIDES • MITICIDES • and FERTILIZERS  
IN STOCK!

•

ROBERT A. ALBERGHINI — SPRAYING  
RFD 5 PLYMOUTH STREET, CARVER, MASS. 02330

TELEPHONE: 866-4429

For further information, call evenings after 5:30

AGWAY

AGWAY

## EDAVILLE . . .

(continued from page 9)

property he could for the line as well as the standing exhibits located throughout the grounds and the museum. He also added attractions along the ride.

The Christmas Festival of Lights, which now has more than 200,000 colored bulbs, became one of the prime appeals at the holidays. The light display was started at Ellis Atwood's home and, because so many people stopped to admire it, he moved it to Edaville.

Blount added to the light display as a memorial to Atwood. And the railroad was named Edaville, the first three letters of which were derived from the initials of Ellis D. Atwood's name.

So the railroad prospered, taking young and old on an awe-inspiring journey into bogs filled with lights and exhibits signifying the season as it moved along with great flumes of smoke and whistles going. Along the route, conductors collected tickets and children would go from side to side inside the train to see the attractions as they appeared.

**BLOUNT WAS TO DIE** in an airplane accident and Frederick H. Richardson became president.

It was about this time that Bartholomew came back to New England following graduation from a college in Arizona.

Settling in Mattapoisset, Bartholomew became the owner of a car wash but returned to the railroad line at Christmas time to work as a volunteer engineer as he had done while in college and when he came home for the holidays. His obsession with trains had never ceased.

So it was only fitting that Bartholomew would be offered the first chance to purchase the railroad when it was put up for sale.

Searching for a loan was exasperating and Bartholomew soon learned a lesson in rejection.

"But I finally walked into a bank in New Bedford and met a president who also was a railroad buff," Bartholomew told CRANBERRIES.

"He listened to me for two hours and then called up the chairman of the board who had had an engineer friend who had taken him for rides aboard the trains. I spent another two hours talking about the Edaville Railroad and then walked out with the loan."

But it wasn't an easy ride to success. Along came the energy crisis starting in '73. This had a decided impact on business.

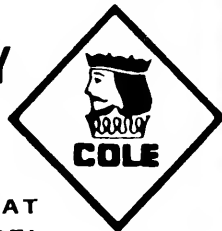
"The general economy, oil shortages, cash shortages and general fear among the public cut into business," Bartholomew says.

Explaining the boost that began with the last holiday season, the railroad owners said: "I think people restrained themselves too long and with Christmas and New Year's here, they wanted to get out. They were tired of skimping and it was the end of the year, so they felt they had something coming."

**THAT SOMETHING** was Edaville with its lights, locomotives, animal petting zoo, museum and general atmosphere, all guaranteed to induce that certain holiday feeling.

(continued on the next page)

## WISCONSIN CRANBERRY HEADQUARTERS FOR



EVITAL • SOLO • DIQUAT  
2-4-D • DOWPON • ETHREL  
SEVIN • PARATHION • GUTHION • DIAZINON  
KOCIDE • DIFOLITAN • FERBAM  
COPPER SULFATE • PRINCEP

## Cole Chemical Supply

DIVISION OF *Hopkins* AGRICULTURAL CHEMICAL CO  
P.O. BOX 7211, MADISON, WISCONSIN 53707  
608-221-1581

Office  
295-2222

K. Beaton  
295-2207

## BEATON'S CRANBERRY GROWERS SERVICE

  
WAREHAM, MASS.

D. Beaton  
888-1288

P. Beaton  
947-3601

Specializing in

- DITCHING
- NETTING
- SANDING
- WEED CLIPPING
- COMPLETE BOG MANAGEMENT
- HARVESTING (Wet and Dry)

Also

Complete line of portable Crisafulli Pumps 2" - 16"  
Plastic netting for suction boxes

## EDAVILLE . . .

(continued from preceding page)

The Edaville Railroad is open daily from June through Labor Day. In the fall, with a full view of cranberry picking, the diesel engine runs Monday through Friday and the steam locomotive operates on Saturdays, Sundays and holidays.

The attraction closes for the winter starting Jan. 6. Then in April it opens on Sundays and holidays. In May it is open Saturdays, Sundays and holidays.

In the summer, the congenial Bartholomew engages in his favorite pastime—taking out the train.

# weather watch

## MASSACHUSETTS

June was extremely cool, averaging 2.9 degrees a day below normal. This was the coldest June since 1948 and the third coldest in our records, surpassed only by 1926 and 1948.

Maximum temperature was 92 degrees degrees on the 27th and the minimum was 42 degrees on the 11th and 12th. The only warmer than average days were the 1st, 24th, 25th and 27th. Cooler than average periods were the 5th-12th, 14th-15th, 18th, 20th and 30th.

Rainfall totaled 3.69 inches or about 0.4 above normal. There were measurable amounts on 10 days with 0.75 and on the 2nd occurred the greatest storm. The last half of the month was dry with only 0.7 inch for the two weeks. We are now about 5 inches below normal for the first half of the year and 13-1/3 inches behind 1979 for the same period.

I.E.D.

## NOVA SCOTIA

Cranberry florets were so sufficiently advanced by July 3 that full bloom was anticipated within a week.

We still were having weather problems and one bog had to be irrigated the night of July 2. Fortunately, we have plenty of moisture.

I.V.H.

## WASHINGTON

April rainfall totaled 6.69 inches,

May totaled 2.12 inches and June totaled 2.03 inches.

The annual rainfall to date is 39.40 inches, just 1.82 inches below average.

The continual overcast sky condition has led to a very late season for cranberry bloom, as well as cool growing conditions for all gardens and crops.

June's maximum temperature was 66 degrees on the 8th and the minimum was 34 degrees on the 4th.

A.Y.S.

## CORRUGATED CULVERT PIPE

and

## FLOW GATES

Aluminum - Galvanized  
Asphalt Coated

# Felker Bros. Corp.

MARSHFIELD WISCONSIN

Area 715 384-3121

A MOST COMPLETE INVENTORY OF  
IRRIGATION ACCESSORIES



# LARCHMONT

ENGINEERING & IRRIGATION, INC.

P.O. Box 66, 11 Larchmont Lane, Lexington, MA 02173 (617) 862-2550

IRRIGATION EQUIPMENT DESIGNED ESPECIALLY  
FOR THE CRANBERRY INDUSTRY

FOR EXAMPLE:

*Gorman-Rupp Self Priming Electric Sprinkler Pumps*  
*Proven Quick Couple Riser*  
*Ingersoll-Rand Water Harvest Pumps*  
*Aluminum Insert Coupling For 4" Poly Pipe*

Contact:

Larchmont Engineering  
Phil Tropeano, President  
(617) 862-2550 (Call Collect)



Contact:

Bill Stearns, Plymouth, Mass.  
(617) 746-6048  
(617) 746-2610



# 1930 - 1980 50 YEARS OF SUCCESSFUL COMMITMENT

- To handling members' crops — all year, every year
- To developing and expanding the market for members' crops — nationally and internationally
- To generating consumer acceptance of the Ocean Spray trademark as the standard of excellence for the industry
- To increasing grower returns at a rate consistent with long-term stability and growth

Ocean Spray: the handler of choice now  
— and for the years ahead



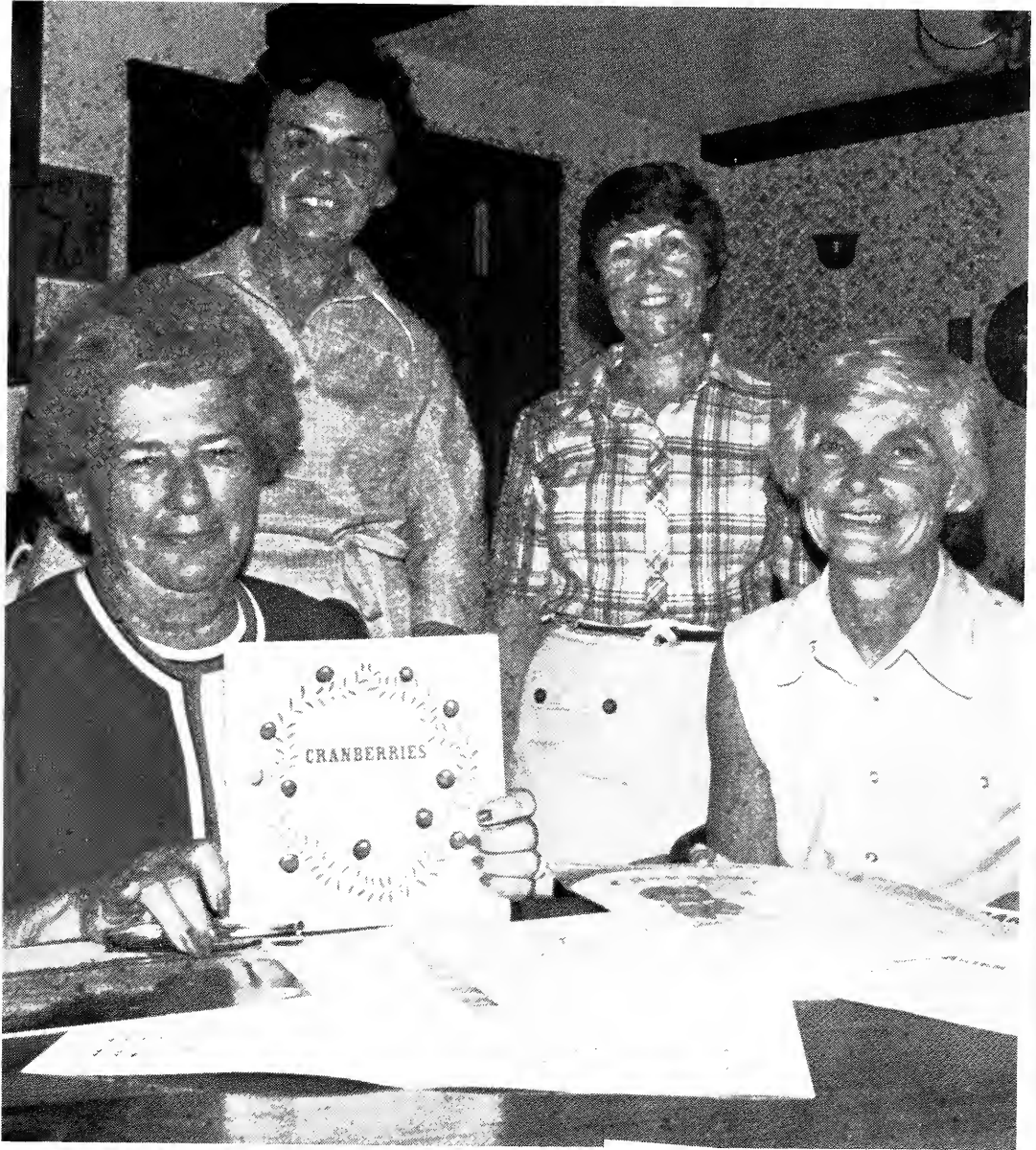
Ocean Spray Cranberries, Inc., Plymouth, MA 02360

# CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

Vol. 44, No. 9

September 1980

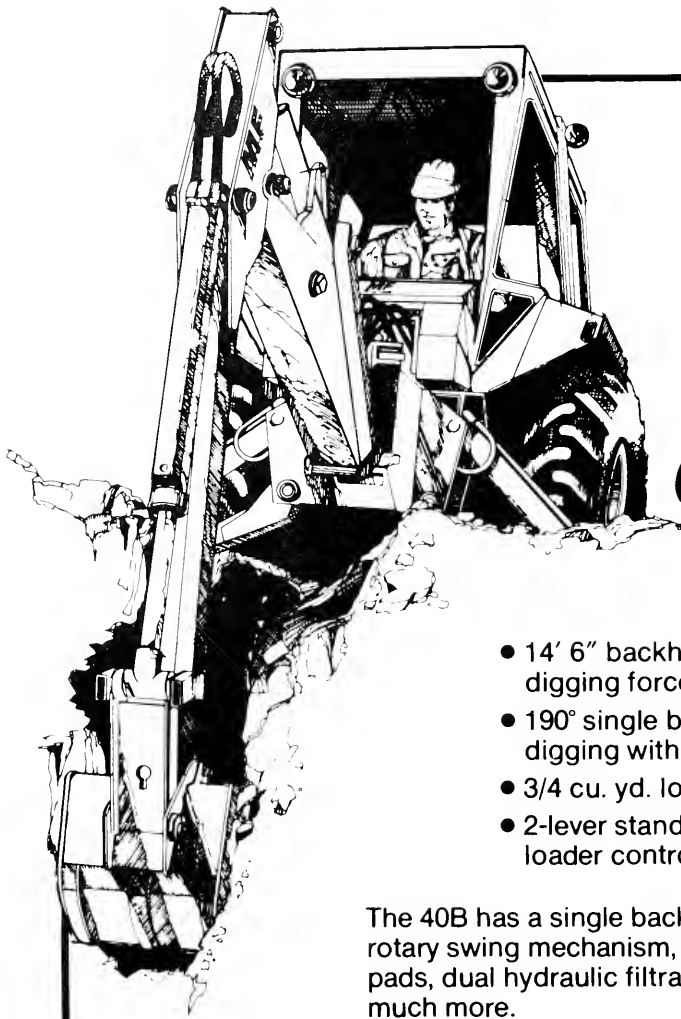


**Berries and books . . . 8**

★★★★★

**\$500 reward posted . . . 6**

Library UMass  
Serials Section  
Amherst MA 01002



# **MF 40B:** **a lot of** *ditching for* **your dollar.**

- 14' 6" backhoe digging depth with 9,885 lbs. digging force.
- 190° single bucket linkage . . . straight wall digging with no special adjustments.
- 3/4 cu. yd. loader with increased lifting capacity.
- 2-lever standard backhoe control and single lever loader control.

The 40B has a single backhoe mounting system, improved rotary swing mechanism, new stabilizers and hinged stabilizer pads, dual hydraulic filtration system to 10 microns, plus much more.

The smart investment in a heavy-duty backhoe/loader.

SEE US FOR QUALITY NEW AND  
USED EQUIPMENT



# Marketing body set

There were three new faces among the 14 members and alternates named recently to the Cranberry Marketing Committee by U.S. Secretary of Agriculture Bob Bergland.

The new member named was Stephen D. Warnock of Bandon, Ore., who became the committee's first appointee from Oregon.

Named as new alternates were Douglas R. Beaton of East Sandwich, Mass., and Charles H. Lewis of Shell Lake, Wisc.

The breakdown of the committee, the rest of whose members and alternates were reappointed, is:

District 1 (all from Massachusetts): member Russell M. Lawton, Middleboro, and

alternate Beaton; member John C. Decas, Wareham, and alternate Robert B. Hiller.

District 2 (all from New Jersey): member J. Garfield DeMarco, Chatsworth, and alternate Stephen V. Lee III, Chatsworth; member Charles S. Thompson Jr., Vincentown, and alternate Alvan R. Brick, Medford.

District 3 (all from Wisconsin): member C.L. Searles, Wisconsin Rapids, and alternate Lewis; member Richard H. Indermuehle, Manitowish Waters, and alternate Patrick A. Getzin, Wisconsin Rapids.

District 4 (Oregon-Washington): member Warnock and alternate Donald Hatton, Grayland, Wash.

Thompson is chairman of the recently appointed body, which will serve through July 31, 1982.

The committee assists the U.S. Department of Agriculture in administering the federal marketing order for cranberries grown in Massachusetts, Rhode Island, Connecticut, New Jersey, Wisconsin, Michigan, Minnesota, Oregon, Washington and Long Island, N.Y.

(continued on page 12)



## COVER PHOTO

### THE PLAY LEARNING

Publications team, l. to r.: Shirley Bourget, Jean Thompson, Doris Collins and Eloise Doyle. (Duxbury Clipper photo by Deni Johnson) Story, pg. 8.

A MOST COMPLETE INVENTORY OF IRRIGATION ACCESSORIES



# LARCHMONT

ENGINEERING & IRRIGATION, INC.

P.O. Box 66, 11 Larchmont Lane, Lexington, MA 02173 (617) 862-2550

IRRIGATION EQUIPMENT DESIGNED ESPECIALLY FOR THE CRANBERRY INDUSTRY

FOR EXAMPLE:

- Gorman-Rupp Self Priming Electric Sprinkler Pumps*
- Proven Quick Couple Riser*
- Ingersoll-Rand Water Harvest Pumps*
- Aluminum Insert Coupling For 4" Poly Pipe*

Contact:

Larchmont Engineering  
Phil Tropeano, President  
(617) 862-2550 (Call Collect)



Contact:

Bill Stearns, Plymouth, Mass.  
(617) 746-6048  
(617) 746-2610





## 1st pickup made

# Sulphur Springs plant

The first truckload of cranberry drinks and sauce was picked up recently at Ocean Spray Cranberries' newest manufacturing and distribution center in Sulphur Springs, Tex.

The pickup was made by Grocery Supply Co., a Sulphur Springs based supplier of food and other products to supermarkets and grocery stores in Texas and surrounding states.

In addition to serving as a distribution center for all Ocean Spray sauce, beverage and fresh berry products, the 154,000 square foot plant now has the capability to process the cooperative's entire line of juice drinks, Sam Malaney, plant manager, said.

Malaney noted that 95 people, all but four from the local area, presently work at the facility. Most of the employees operate two high speed bottling lines capable of producing 14,000 cases of drink and juice products per eight hour shift.

"I ANTICIPATE that another 25 to 50 employees will be recruited from the local area in the weeks ahead as the number of pickups and shipments increase," Malaney said. "And four to six months from now, we may also have to add a second shift."

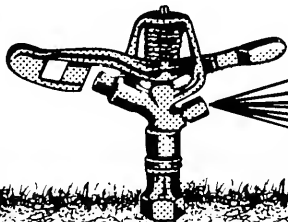
Ocean Spray purchased the plant and 17.4 acres of land in the spring of 1979 from Consolidated Foods Corp. The facility was opened by Ocean Spray on March 6 of this year, following several months of extensive reno-



**SAM MALANEY** has served as plant manager of the new Ocean

(continued on page 12)

(continued on page 12)



# RASPBERRY

**AUTHORIZED AGWAY REPRESENTATIVE**

**LICENSED SPRAYING OF PESTICIDES (Seasonal)**

**WITH A COMPLETE LINE OF:**

**CRANBERRY INSECTICIDES • FUNGICIDES  
HERBICIDES • MITICIDES • and FERTILIZERS  
IN STOCK!**

**ROBERT A. ALBERGHINI – SPRAYING  
RFD 5 PLYMOUTH STREET, CARVER, MASS. 02330  
TELEPHONE: 866-4429**

**AGWAY**

For further information, call evenings after 5:30

**AGWAY**

# editorial



## PESTICIDE EXAM DATES ARE SET

Certification and licensing exams for private pesticide applicators will be held Sept. 3 and Nov. 3 starting at 10 a.m. at the Massachusetts Cranberry Experiment Station in East Wareham.

## The unique berry

It seems fitting that the cranberry is the subject of two books introduced to children and schools by a quartet of talented ladies from Duxbury, Mass.

The cranberry is so much part of the warp and woof of American history and legend. It was part of the diet of the early American Indian. The Pilgrims made it part of their Thanksgiving repast.

The very cultivation of this native American fruit is unique, making it a fascinating subject for study by school youngsters.

Yes, everyone associated with this unique product of agriculture has a reason for feeling a special kind of pride for his or her role in perpetuating the exceptional berry. That includes the four enterprising women from Duxbury who are keeping the cranberry alive in the minds of school children.

## Time to get tough

The Cape Cod Cranberry Growers Assn. is offering a \$500 reward for information leading to the arrest and conviction of thieves and vandals found plundering area bogs. Such concerted action is to be applauded.

Let's hope that the police pursue any leads diligently and that the courts hand down the stiffest penalties allowable on these despicable types who have been a growing source of frustration to growers.



## BARK RIVER *Culvert and Equipment Co.*

(Wisconsin-Michigan Growers)

ALUMINUM HEADGATES FABRICATED  
TO YOUR SPECIFICATIONS

HAND WHEEL OPERATED GATES

ALUMINUM CORRUGATED PIPE

INTERNATIONAL POWER UNITS

INTERNATIONAL CRAWLER TRACTORS

WARNER & SWASEY EXCAVATORS

WALDON LOADERS AND USED EQUIPMENT

Eau Claire, Wis.  
715-835-5157

Escanaba, Mich.  
906-786-6920

Milwaukee, Wis.  
414-461-5440

Madison, Wis.  
608-222-4151

Green Bay, Wis.  
414-435-6676

Ironwood, Mich.  
906-932-0222



**INTERNATIONAL CONSTRUCTION EQUIPMENT**

INTERNATIONAL HARVESTER COMPANY

## CRANBERRIES



THE NATIONAL CRANBERRY  
MAGAZINE

—Our 44th Year of Publication—

VOLUME 44—No. 9  
September 1980

Send correspondence to:

P.O. Box 249  
Cobalt CT 06414

Phone: (203) 342-4730

Bob Taylor, Publisher/Editor

### ADVISORS, CORRESPONDENTS

Massachusetts—Dr. Chester E. Cross, Director, Massachusetts Cranberry Experiment Station; Irving Demoranville, Extension Cranberry Specialist, Massachusetts Cranberry Station; Michael Couture, East Wareham, Mass.

New Jersey—Philip E. Marucci, Cranberry and Blueberry Specialist, Cranberry and Blueberry Laboratory, Chatsworth, N.J.; Mary E. Archibald, Collingswood, N.J.

Nova Scotia—I.V. Hall, botanist, Research Station, Kentville, N.S.

Oregon—Arthur Poole, Coos County Extension Agent, Coquille, Ore.

Washington—Azmi Y. Shawa, Associate Horticulturist and Extension Agent in Horticulture, Extension Unit, Long Beach, Wash.

Wisconsin—Vernon Goldsworthy, Eagle River, Wisc.; Tod D. Planer, Farm Management Agent, Wood County, Wisc.; Joan E. Humphrey, Friendship, Wisc.

CRANBERRIES is published monthly by the Taylor Publishing Co., Wellwyn Drive, Portland CT 06480. Second class postage is paid at the Portland, Conn., Post Office. Price is \$8 a year, \$15 for two years, 80 cents a copy in the U.S.; \$9 a year in Canada; \$10 a year in all other countries. Copyright 1980 by Taylor Publishing.

ISSN: 0011-0787

# Steps taken against thieves and vandals

A \$500 reward for information leading to the arrest and conviction of thieves and vandals is being offered by the Cape Cod

Cranberry Growers Assn.

Theft and vandalism have become growing problems among Massachusetts cranberry farmers.

At a recent meeting of association officers and directors, it was voted to have signs made up indicating the reward.

The group also decided to:

- (1) distribute to all growers copies of laws relating to trespassing and damage to agricultural property;
- (2) have President John C. Decas and Doug Beaton and the reward committee draft a letter to town police chiefs explaining the growing problem;
- (3) send to each grower a form on which he can list cases of theft and vandalism.

The completed forms will be sent to the appropriate police chiefs.

**IN OTHER BUSINESS**, it was decided that Decas and Paul Morse would meet with the appropriate experts in the composition of the wetland ecology leaflet.

Approval was given to the paying of \$125 per season to frost telephone distributors, up from \$100.

Clark Griffith, chairman of the promotion subcommittee, reported a proposed budget for the Eastern States display of \$4,300. This is more than in 1979 due to a \$500 increase for lodging, extra meal money and the cost of enlarged prints of food items for the display.

The treasurer reported that Louis Facchetti has agreed to audit the association books this year.

## CRANBERRY ACREAGE IS UP IN WISCONSIN

A total of 7,100 acres of cranberries was harvested in Wisconsin in 1979.

That total was the largest amount harvested in the past eight years and was up from 7,000 acres in 1978 and 6,400 acres in 1977.

Also disclosed in the Wisconsin agricultural statistics for 1980 was the fact that 900,000 barrels was the state yield for 1979. That was the highest amount since 1972 except for 1976 when the yield was 1,004,000 barrels.

The 1979 yield amounted to 126.8 barrels per acre. That was lower than the 1976 yield of 147.6 barrels per acre and the 1977 yield of 133.4 barrels per acre.

## Baldwin Excavators



Specializing in  
Agricultural Construction

*Flumes*  
*Canals*  
*Land clearing*  
*Sanding*  
*Water holes*  
*Ditching*  
*Dikes*  
*Grading*

Mert Howes  
295-5542

Fred Locke  
866-2639

COUNTY ROAD  
W. WAREHAM, MASS.  
02576

Office  
295-2222

## BEATON'S CRANBERRY GROWERS SERVICE

K. Beaton  
295-2207



WAREHAM, MASS.

D. Beaton  
888-1288

F. Beaton  
947-3601

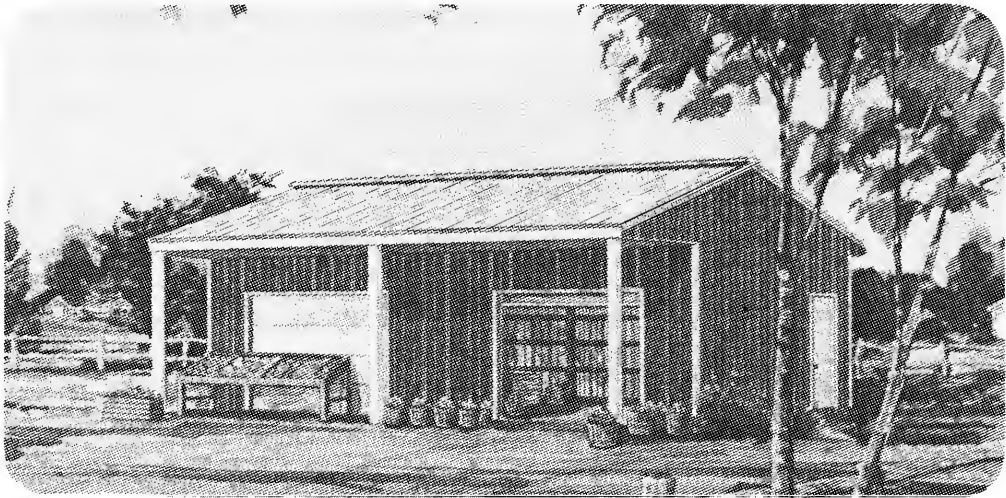
Specializing in

- DITCHING
- SANDING
- COMPLETE BOG MANAGEMENT
- NETTING
- WEED CLIPPING
- HARVESTING (Wet and Dry)

Also

Complete line of portable Crisafulli Pumps 2" - 16"  
Plastic netting for suction boxes

# AGWAY



## BEAT INFLATION...

### Buy An AGWAY Package Building NOW!

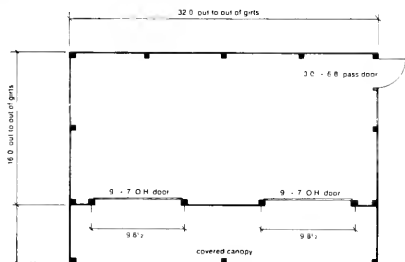
(CONSTRUCTION TO BE HANDLED BY YOU  
OR YOUR CONTRACTOR.)

The price quoted by Agway is guaranteed for 90 days after signing the contract and covers all materials needed except plumbing, heating, electrical supplies, concrete floor, insulation and interior finishing products.

#### PACKAGE INCLUDES:

- BLUEPRINTS designed to comply with most building codes.
- MATERIAL SPECIFICATIONS LIST.
- GUARANTEED ADEQUATE SUPPLY OF MATERIALS TO COMPLETE THE BUILDING when blueprints & specifications are followed.
- PLANNING ASSISTANCE including help with developing a total budget for the building: site cost, site preparation, electrical, plumbing, water, etc.

**FINANCING AVAILABLE** through Telmark, Agway's own financing company. Ask your salesperson for details.



### The 32/22 Roadside Stand

32' x 22' x 10'

A showcase for selling farm-grown produce: • 512 sq feet of inside area (32' x 16') • 6' x 32' cantilevered overhang across front • storage and display area • 9' x 7' overhead doors

## AGWAY BUILDING MATERIALS

15 Washington St., Rte. 53  
PEMBROKE—Tel: 826-5171

New Store Hours Are: Mon., Tues., Wed., Thurs., Fri., 7:30-4:30. Sat., 8:00-4:30



# The cranberry goes to school

All the ingredients were there for Doris (or "Dottie," as her friends call her) Collins.

Brought up in Massachusetts cranberry country, she had walked about quite a few bogs and had on occasion picked the berry.

An imaginative, able nursery school teacher for a decade and a half, she believed in introducing the kiddies to their heritage and to the things about them in nature.

That meant feeling, touching, tossing and squishing the berry, discussing its history and talking about its color and weight.

And, all the time she was teaching, Doris Collins had in the back of her mind the idea that she'd like to write children's books.

Now you take all the above ingredients, add in a trio of talented friends and some expert advice and you have Play

Learning Publications of Duxbury, Mass., and its two products to date, *Cranberry Recipes for Learning* and *Cranberries: Children's Activity Book*.

**THE FIRST** is a learning kit aimed at the education market and intended for pre-school and early school age children, and it includes a series of teacher directed activities and posters about cranberrying.

The activity book tells the story about the cranberry in sharp, succinct text and photo from the preparation of the bog to the grocery shelf, and is intended for children to work on by themselves. It is being marketed in museums, book stores and resource centers.

A cassette with cranberry songs recently was added to the learning kit and each product neatly crosses over to the other's market; the learning kit to the bookshop, the activity book to the schoolroom.

**THE TALENTED** friends who assisted author Collins included Jean Thompson, nursery school teacher and church music composer, who wrote the music for the nursery song rhymes in the learning kit; Shirley Bourget, a New England School of Art graduate and one-time art and science teacher, who did the illustrations, and Eloise Doyle, professional designer, who did the graphics and layout.

Doyle came into the picture

after Collins tried unsuccessfully to find a publisher for her brain-children.

One asked rhetorically: "Who would ever want to know that much about cranberries?"

That's when Doyle was called in and the fearless foursome then strode undauntedly into the perilous world of publishing.

**EACH POURED \$1,000** into the project. They hired a lawyer and a CPA. Husbands and other family members offered encouragement and free advice. Ocean Spray Cranberries Inc. assisted with photographs.

A printer, whose owner lives right in Duxbury, was found in Braintree, Mass.

"We'd never sold anything in our lives," the publishing quartet confessed.

But sell they did.

## FOR SALE

1978 Massey Ferguson  
30B Diesel Tractor  
Loader/Backhoe

Brand new condition. 150  
hours. Attachments include  
roll over protection system,  
category I 3 point hitch, 6  
foot Triumph 2500 series  
side mower.

\$20,000 or best offer

(617) 224-6078

**CORRUGATED  
CULVERT PIPE**

and

**FLOW GATES**

Aluminum - Galvanized  
Asphalt Coated

**Felker Bros.  
Corp.**

**MARSHFIELD WISCONSIN**

**Area 715 384-3121**

The proceeded cautiously, printing only 1,000 copies of the activity book. They approached museums, bookshops and resource centers in southeastern Massachusetts in an effort to get them to sell the product. This writer first became familiar with the project when he visited Plymouth Plantation in Massachusetts.

By the end of the summer last year (the initial season of sales) they had sold out. That fall they ordered a second printing—of 3,000 copies.

Adding extra excitement to the venture is the fact that their book has been sold in Puerto Rico and as far away as France and Japan.

They've still to learn what results they're getting from the learning kit. Its sales have been placed in the hands of an educational supply house, whose catalogue will hit the schools this school year.

But one thing is certain, says Collins:

"Play Learning Publications is solvent."

**SOME OF THE** activities in *Cranberries: Children's Activity Book* include simple recipes for cranberry "fun food" (cran-pops, cranberry fluff, etc.), a cranberry "bounce" board game, follow the dots drawings with a cranberry motif, and illustrations to color in. The text and photos are certainly instructive for older children—as well as adults—who are not familiar with the growing of the unique berry.

In addition to nursery school songs about the berry, the learning kit contains exercises aimed at developing vocabulary, counting skills, weight and measure concepts, motor skills and other aids to child development.



ABOVE are the materials produced by Play Learning Publications.

**CERTIFICATE FOR  
NOT MORE THAN  
100,000  
SHARES**

**CERTIFICATE FOR  
NOT MORE THAN  
100,000  
SHARES**

## STOCKS & BONDS

have been our business for over 45 years.  
We are easy to reach.  
Call us for what YOU need to know.

# Gage-Wiley & Co., Inc.

40 Court Street, Plymouth, Mass. 02361  
**617-746-3322 Call Toll Free in Mass. 1-800-242-0263**

## WISCONSIN CRANBERRY HEADQUARTERS FOR

EVITAL • SOLO • DIQUAT  
2-4-D • DOWPON • ETHREL  
SEVIN • PARATHION • GUTHION • DIAZINON  
KOCIDE • DIFOLITAN • FERBAM  
COPPER SULFATE • PRINCEP

## Cole Chemical Supply

DIVISION OF *Hopkins* AGRICULTURAL CHEMICAL CO  
P.O. BOX 7211, MADISON, WISCONSIN 53707  
608-221-1581

# regional news notes

## Massachusetts

By IRVING DEMORANVILLE

Dr. Chester E. Cross, director of the Massachusetts Cranberry Station, and his wife, Shirley, traveled in several European countries as part of a delegation of agricultural leaders on a People to People goodwill tour. The group was sponsored by the Massachusetts Department of Agriculture. They visited agricultural areas in Poland, Romania, Denmark and Sweden for two weeks from July 12-26.

\*\*\*\*

A total of 13 frost warnings were issued during the 1980 spring frost season.

Frost injury appears to be minimal. There were a few reports of some

scattered spots of injury that occurred early—probably May 4 when temperatures were in the low 20's locally.

Also, there were reports of spots of injury reported from the June frost, possibly from the 9th and 11th when there were reports of 27 and 28 degrees locally.

Comparing 1980 to other years, there were four warnings each in 1979 and 1978, 15 in 1977 and 25 in 1976.

## Oregon

The 1980 Bandon, Ore., Cranberry Festival will be held Sept. 26-28. A highlight of this year's festival will be an arts and crafts show to be sponsored by the Chicago Street Gallery. Other fair features will be game booths, live entertainment and handcrafted items for sale.

## FARM EXPORTS SOAR

By STEPHEN R. MILMOE

Following the January 4, 1980, suspension of U.S. grain and oilseed and product exports to the USSR, it looked as if total U.S. agricultural exports during fiscal 1980 would decline \$1 billion below earlier export

projections of \$38 billion.

Now export projections are back up to the pre-suspension level with actual exports running well above those in the same period last year.

In the first seven months of fiscal 1980 (October-April), U.S. agricultural exports were 34 percent above the level of a year earlier, to \$24.76 billion. This figure represents 65 percent of the current estimate for fiscal 1980, versus 58 percent last year at this time. The export rate would have to drop 25 percent to \$2.6 billion a month (from the current rate of \$3.5 billion) for the remaining five months of the fiscal year in order to reach the current estimate of \$38 billion.

The agricultural trade surplus thus continues to widen, reaching \$14.4 billion in October-April 1979/80 versus \$9.1 billion during the same period last year. However, the total U.S. trade deficit also widened, from \$12.5 billion to \$17.2 billion.

## 1,500 INGREDIENTS

There are now about 1,500 pesticide ingredients and some 35,000 products that contain them.



**Bog construction**

**Vine setting**

**Flumes and flume work**

**Bog sand**

**Nemasket Construction Co., Inc.**

**275 Wareham St., Middleboro MA 02346**

**(617) 947-1723**



"THEY WANT TO KNOW WHY WE INVADE ONE BOG AND NOT ANOTHER . . . BECAUSE WE KNOW WHAT GOOD IS . . . RIGHT?"

**CRANBERRY GROWERS  
REALTY**

Listings of buyers and sellers welcomed on cranberry acreage and upland.

Appraisals

**DOUGLAS R. BEATON**  
E. Sandwich, Mass.  
02537  
(617) 888-1288

**Niemi Electric Co.**

ROBERT NIEMI

**ELECTRICAL CONTRACTORS**  
**HEAT, LIGHT and POWER WIRING**

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL



TEL. 295-1880

Robert Niemi Pinchurst Dr.

Wareham, Mass.



## MALANEY . . .

(continued from page 4)

**Spray manufacturing and distribution center in Sulphur Springs, Tex., since November 1979. He previously served for seven years as area engineer at Ocean Spray's manufacturing facility in Kenosha, Wisc. Prior to joining Ocean Spray in Kenosha as plant engineer in 1972, he was with William Underwood Co. in Portland, Me. Malaney holds a BS in electrical engineering from University College at London University, England, and a diploma in business administration from Sir George Williams College in Montreal. He and his wife, Edna, live in Sulphur Springs.**

## SULPHUR SPRINGS . . .

(continued from page 4)

vation. In its first few months of operation, the facility has been stocking inventory and serving as a warehouse for a variety of products destined for Sunbelt markets, utilizing some 75,000 square feet of warehouse space.

The air conditioned structure also includes 3,685 square feet of newly appointed office space, a freezer capable of storing 11,000 barrels of cranberries (100 pounds per barrel), and 11 acres of surrounding landscape. A 29,600 square foot concrete pad adjoins the warehouse and is available to support another building.

Malaney said that Ocean Spray's first wholly owned facility in the South will expand its product pickups and soon will begin deliveries to brokers and other food store suppliers in Texas, Oklahoma, Louisiana, Arkansas, Tennessee, Kansas, Mississippi, Missouri, Colorado, New Mexico, Nebraska and Wyoming.

"The convenient location of this facility (80 miles northeast of Dallas near Interstate 30 and Texas Route 154) to our customers in the South, Southwest and Midwest will help them realize cost savings up to 95 cents a case, based on 45,000 pound truck-load shipments," Malaney said. "They can save more than a dollar on pickups."

**THE PRESIDENT** of Grocery Supply Co., Mickey McKenzie, was

also on hand for his firm's pickup. He mentioned the added benefit of time savings between ordering and receiving products.

"As Ocean Spray's new plant nears full capability," McKenzie said, "I should be able to pick up products within a day or two of an initial order."

The Sulphur Springs facility is one of five manufacturing plants owned and operated by Ocean Spray.

Others are located in Middleboro, Mass.; Bordentown, N.J.; Kenosha, Wisc., and Markham, Wash. Headquartered in Plymouth, Mass., Ocean Spray also manufactures product at four "satellite" facilities owned by other companies. In addition to the manufacturing plants, the cooperative has four cranberry receiving stations and one grapefruit receiving station.

## MARKETING BODY . . .

(continued from page 3)

Charles Brader, fruit and vegetable marketing official with USDA's Agricultural Marketing Service, said the marketing order has authority for regulating the volume of cranberries that are shipped and also authorizes research and development activities.



## MASSACHUSETTS

The month of July was warm, averaging 1.2 degrees a day above normal, making it the ninth warmest in our records. Maximum temperature was 88 degrees on the 21st and 25th. Minimum was 52 degrees on the 7th. The only warmer than average days were the 21st, 25th and 26th. Cooler than average days were the 1st, 2nd, 6th, 8th and 11th.

Precipitation total was only 1.20 inches, which is 1 2/3 inches below normal. This made it the driest July since 1966 and the sixth driest in our records. There was measurable rainfall on six days with 0.66 inch on the 6th as the greatest storm. From the 6th on, we had only .21 inch, making

sprinklers work overtime and reservoir levels drop. We are about 6 1/4 inches below normal for the year to date and nearly 16 inches behind 1979 for the same period.

I.E.D.

## NOVA SCOTIA

Precipitation for the month of June at Kentville was 129.1 mm compared with the 50-year average of 73.2. Our mean temperature for the month was 14.6 degrees C against the 50 year average of 15.3. Most of the weather in July followed the same pattern. Harvesting of most fruit crops is running a week to 10 days late.

I.V.H.

## WISCONSIN

Temperatures during July were above normal as several days had high readings in the 90's. This was a sharp contrast to last summer when there were only a few days with highs in the 90's. The first two weeks of July were drier than normal but good rains fell in the third week. These rains were needed to relieve moisture stress on crops from the hot, dry weather.

# DIRECTORY for Cranberry Growers

## The CHARLES W. HARRIS Company

451 Old Somerset Avenue  
North Dighton, Mass.  
Phone 824-5607

**AMES**  
Irrigation Systems  
**RAIN BIRD**  
Sprinklers  
**HALE**  
Pumps

Highest Quality Products  
with Satisfaction Guaranteed



**CHICKEN HAWAIIAN**

- Two 2-lb. ready-to-cook broiler-fryer chickens, split lengthwise
- 1/2 cup cooking oil
- 2 teaspoons salt
- 1/2 teaspoon pepper
- 1 8 1/2-ounce can crushed pineapple, drained
- 1 cup brown sugar
- 1/2 cup canned whole cranberry sauce
- 2 tablespoons lemon juice
- 2 tablespoons prepared mustard

Brush birds well with oil and season with 2 teaspoons salt and the pepper. Place on grill with bone side or inside down. Broil slowly. When bone side is well browned, 20 to 30 minutes, turn skin side down and cook 20 minutes longer. Combine remaining ingredients and dash salt; brush on both sides of birds. Broil about 10 minutes longer or till tender, turning and brushing each side twice with glaze. Heat and pass remaining glaze. Makes 4 servings.

O, gie me the lass that has acres o' charms,  
 O, gie me the lass wi' the weel-stockit farms.  
 —Robert Burns

**STAY INFORMED**

subscribe to CRANBERRIES  
 \$8 a year; \$15 two years  
 Send check or money order to:

**CRANBERRIES**  
 P.O. Box 249  
 COBALT CT 06414



**A Solid Investment**

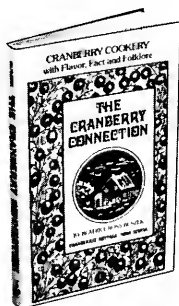
requires solid financing . . . and that's our specialty. Credit for equipment, land, buildings . . . all your financial needs. For Credit . . . Plus a full range of other finance-related services, see your local Farm Credit representative.

P.O. Box 7 Taunton, Mass. 02780 Tel: (617) 824-7578  
 Office: Located on Rt. 44, 1/4 Mile West of Rt. 24

**The scoop of the year!**

*Cranberry Flavor, Fact and Folklore in*

**THE CRANBERRY CONNECTION**, by Beatrice Buszek. Your favorite berry pops up in kitchen-tested recipes for every delight from Cranberry Bog to Cranberry-Banana Bread, Cranberry Avocado Dip, and countless other desserts, drinks, salads, entrees. "A fascinating revelation of the many uses for cranberries . . . you'll find this book a treasure."—*Des Moines Register*. Paperback, \$7.95.



Please send \_\_\_\_\_ copies of **THE CRANBERRY CONNECTION**, \$7.95 each.

Name \_\_\_\_\_

Address \_\_\_\_\_

Zip \_\_\_\_\_

Add \$1.00 for postage; Conn. residents add 7% sales tax.

**CRANBERRIES MAGAZINE**  
 P. O. Box 249, Cobalt, CT 06414

# HAVE YOU MISSED THESE ARTICLES?

*Cranberry Magazine's Reader's Service makes available copies of the articles listed below which have appeared in past issues. Order the articles you want to update your library. Please send cash or check with each article requested. ORDER BY NUMBER.*

## TECHNICAL ARTICLES

868	Sprinkler Frost Protection, Parts I, II, III	8.00
469	Chemical Color Enhancement of Cranberry Fruit	1.75
569	Increasing Yields by Controlling Weeds in Nova Scotia	1.25
971a	Cranberry Growth as Related to Water Levels in the Soil	1.25
1171	Sevin, DDT and the Gypsy Moth	2.00
1271a	Seed Germination in Cranberry	1.25
172	Water Harvest Procedures & Quality of Early Blacks in Mass.	1.25
372a	Recent Tests with Fertilizer Supplements	1.50
472	Spreader Reel for Cranberry Bog Sanders	1.25
672	Phosphorus Removal Calculated in Oregon	1.25
672a	Honeybee Populations and Fruit Set in Cranberry	1.25
772	Surface Water Quality in Drainage Areas of Cranberry Bogs	1.25
872	Cranberry Production and Water Quality	1.25
1172	Development of a New Cranberry Harvester	2.00
1272	Gel Power Index of Cranberries	1.75
173	An Evaluation of Difolatan in Massachusetts	1.25
273	Effects of Continued Casoron Treatments	1.25
573	Insecticide Toxicity to Honey Bees	1.25
673	Prolonging the Life of Harvested "McFarlin" Cranberries	1.50
773	Tolerance of Cranberries to the Experimental Herbicide San-9789	1.50
1073a	An Analysis of the DDT Controversy	3.00
369b	Growth of Cranberry Plants in Pure Sands and in Wgedy Areas under Nova Scotia Conditions	1.75
769	Pesticide Use in Massachusetts Cranberries	1.25
1069	Resanding of Massachusetts Bogs (Parts I & II)	2.50
1269a	Malathion Hastens Maturity of Highbush Blueberry Fruit	1.50
270	Reduced Chilling Requirement of McFarlin Cranberry Buds	1.25
370a	Photo Period Effect on Plant Growth in Cranberry	1.50
570a	Cranberry Diseases in Nova Scotia	1.75
570b	Cranberry Pollination	1.25
770a	Effect of Herbicides on Vital Plant Systems	2.00
1070a	Evaporation Cooling (Parts I & II)	4.00
1170a	Nova Scotia Cranberry Insects	1.75
1270a	Progress in Controlling Bird Damage to Crops	1.50
171	Cranberry Bog Microclimate	2.00
371a	Oxygen Deficiency Kills Cranberry Insects	1.50
371b	Summer Spray Application of Phosphorus	1.50
471a	Biological and Integrated Control of Cranberry Insects	1.50
274	Effect of Light on Cranberry Seed Germination	1.25
374	Effect of Temperature on Germination of Cranberry Seeds	1.25
674	2,4,5-T Story	1.50
874	Timing Cranberry Herbicide Application	1.25
175	Control of Fairy Ring—Progress Report	1.25
275	Analyses of Cranberry Marsh Discharge Waters—Progress Report	1.75
675	Review of Cranberry Weed Control	1.50
477	Dearness Scale, Vine Pest—Parts I, II, III, IV	6.50
976	Response of Cranberry Bogs to Sulfur-Coated Urea	1.75

# HAVE YOU MISSED THESE ARTICLES?

*Cranberry Magazine's Reader's Service makes available copies of the articles listed below which have appeared in past issues. Order the articles you want to update your library. Please send cash or check with each article requested. ORDER BY NUMBER.*

## GENERAL

536	Volume 1, Number 1—Cranberries Magazine (Reprint)	1.00
1065	Our Changing Value in Cranberry Culture	1.50
1066	Early History of Massachusetts State Cranberry Bog	1.25
1166	New Jersey Research Center at Oswego	1.50
1266	Whitesbog, New Jersey	1.50
867	Cranberry Growing in Washington	1.50
568	New Direction in Harvesting Techniques	1.50
668	New Variety in Nova Scotia	1.50
768a	History of Cranberry Industry in Wisconsin	1.75
969	Operation and Maintenance of Darlington Picking Machine	1.75
969a	Operation and Maintenance of Western Picking Machine	1.25
570	Cranberries Greeted our Forefathers	1.25
870	Pesticides and Progress	1.50
671	Christmas Trees—A Cash Crop	2.00
871	Another Point of View Concerning Pesticides	1.50
472a	Federal Examiner says DDT Not Environmental Threat	1.25
572	Banning DDT is a Big Mistake	2.00
975	DDT Ban Justified According to New EPA Report	1.25
1175	Rebuttal to "DDT Ban Justified"	1.25

## TECHNICAL

864	Casoron and Weed Control in Cranberries	1.25
265	Evaluation of Newer Fungicides in Massachusetts	1.25
265a	Application of Granular Herbicides	1.25
365	Fertilizer Requirements of Cranberries	1.25
465	Encouraging the Bumble Bee in Washington	1.25
565	Research and Problems in Weed Control in Wisconsin	1.50
865	New Cranberry Varieties for Processing	1.25
1165	Observations on the Symptoms and Control of Cranberry Red-Gall Disease	1.25
166	Cranberry Pollination	1.25
266	Casoron Retention in Cranberry Soils	1.25
666	Progress Report of Trace Elements Studies on Cranberries	1.25
766	Objective Measures to Determine Cranberry Yields	1.25
866	Cranberry Speckling Can be Controlled	1.25
167	Telephone Frost Warning Device	1.75
167a	Cranberry Ring Spot Disease Injuring Searles Variety	1.25
367	Cranberry Vine Injury	1.25
467	Control of Red-Gall in Cranberries	1.25
567	Miscellaneous Thoughts on Cranberry Insects	1.25
1167	Cranberry Pollination	1.25
1267	Frost Forecasting in Bandon, Oregon	1.50
168	Die Back of Cranberry in Wisconsin	1.25
268	Control of Fairy Ring Disease	1.25
368	Cranberry Varieties in Nova Scotia	1.25
368a	Wisconsin Cranberry Research Report	1.25
468	Nitrogen Fertilization and Cranberries	1.75

# 1930 - 1980 50 YEARS OF SUCCESSFUL COMMITMENT

- To handling members' crops — all year, every year
- To developing and expanding the market for members' crops — nationally and internationally
- To generating consumer acceptance of the Ocean Spray trademark as the standard of excellence for the industry
- To increasing grower returns at a rate consistent with long-term stability and growth

Ocean Spray: the handler of choice now  
— and for the years ahead



Ocean Spray Cranberries, Inc., Plymouth, MA 02360

# CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

Vol. 44, No. 10

October 1980

56  
30  
10  
10



State aids growers . . . 4

★★★★★

Economic Threshold' . . . 6

Library UMass  
Serials Section  
Amherst MA 01002

# GROWING WORLD OF OWATONNA



**770**

The Mustang 770 is what we call an "in between" kind of machine. In between the lighter skid-steers and heavy earth-movers that are simply too big to handle a lot of jobs in construction, industry and materials handling that need to be done efficiently.

With its 36° articulation and 22° oscillation on the rear axle, the 770 goes most anywhere. In rough, uneven terrain, where it's muddy or soft... the 770 keeps all four wheels down and driving. Articulation plus power steering make it easy to maneuver, easy on the operator.

Equipped with boom and bucket, the 770 offers ¾ yard capacity, handles a ton of materials at a time.



**880**

Like the 770, Owatonna's 880 earns its "in between" rating, but takes the next step up in power and capacity. Here's a "7-ton compact" that handles up to two tons of material with ease. In the yard-plus class, it's big, but not too big. With right or left articulation of 40° and full time power steering, maneuvering in tight quarters is easy for the 880. The rear axle oscillates 22°, allowing 12 inches of vertical travel for each back wheel. Lets you work rough terrain, maintain traction and balance.

With boom and self-leveling bucket, the 880 gives you over 11' lift height and 8'8" of dump clearance. Reach is over 3½ feet at maximum lift height.

**See them now at . . .**



**YOUR YEAR-ROUND SERVICE CENTER**

**CRANBERRY HIGHWAY\*WEST WAREHAM, MASSACHUSETTS 02576\* (617) 295-1553**





**CAPE COD CRANBERRY GROWERS:** Cover—Cranberry juice cocktail is always a favorite at annual meetings of the Cape Cod Cranberry Growers Assn. Left row, top to bottom—Lunch is a time to meet old friends; Clark Griffith, right, who won the door prize (a tool set), receives the prize from Wayne Morse of the Shuster Corp; Mr. Chester E. Cross, left, cranberry station director, and the featured speaker, Dr. Henry Koffler. Right row—The Pres, John C. Decas; the station's Irving E. Demoranville, right, talks with beekeeper Ralph Everett; the association's new reward sign.

(CRANBERRIES photos by Michael Couture)



# Cape Cod growers hear about new laws, UMass

By MICHAEL COUTURE

A Massachusetts Farm Bureau speaker told the 93rd—yes, 93rd—annual meeting of the Cape Cod Cranberry Growers Assn. that the cranberry industry had “a great year” in terms of helpful state legislation.

Speaking recently at the Massachusetts Cranberry Experiment Station in East Wareham, the bureau’s Jay Slattery said one bill on the issuance of farm plates to growers would save \$100,000 in insurance and registration fees.

Also, Slattery said, under a new law that will take effect Oct. 15, tractors and construction

equipment used in the industry no longer will be subject to the state sales tax.

The Farm Bureau speaker also said the Bureau of Revenue will seek a tax credit for farmers with respect to the newly enacted state gasoline tax. Farmland assessment legislation, which died in committee in the last General Assembly session, will be refiled, he added.

As usual, there was a large crowd and their enthusiasm brightened a day of leaden skies and occasional sprinkles.

DR. HENRY KOFFLER, chancellor of the University of Massachusetts, of which the experiment station is part, told the audience that “the state has a

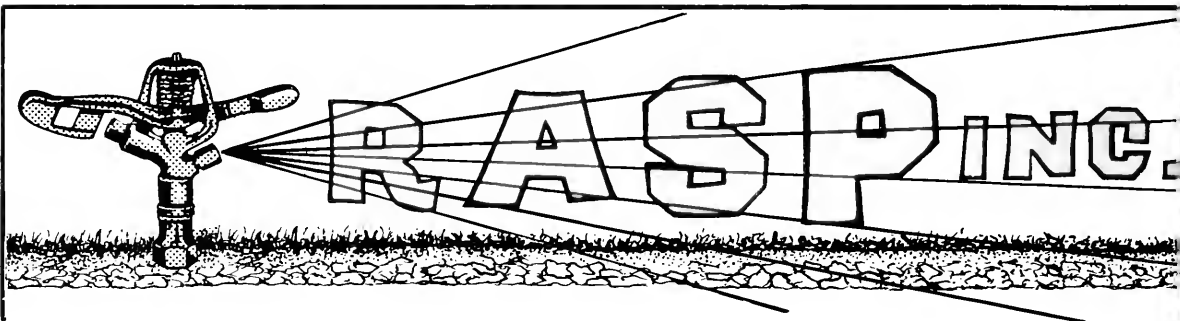
great need to become more independent as far as agriculture goes.”

He lauded the quality of UMass. Having been at four top schools in the country, he said the level of teaching at UMass was better than at any of the others.

Citing that there are 24,000 students at the Amherst campus, he said UMass ranks 50th among the nation’s many colleges and universities and, in some categories, is in the top 10.

Remarking about the impact school could have on the future course of a student’s life, he singled out John C. Decas, association president. Decas’ decision to devote himself to cranberrying was heavily influenced by working summers at the experiment station and studies at UMass Agricultural

(continued on page 7)



**AUTHORIZED AGWAY REPRESENTATIVE**

**LICENSED SPRAYING OF PESTICIDES (Seasonal)**

**WITH A COMPLETE LINE OF:**

**CRANBERRY INSECTICIDES • FUNGICIDES  
HERBICIDES • MITICIDES • and FERTILIZERS  
IN STOCK!**

**ROBERT A. ALBERGHINI — SPRAYING  
RFD 5 PLYMOUTH STREET, CARVER, MASS. 02330  
TELEPHONE: 866-4429**

**AGWAY**

For further information, call evenings after 5:30

**AGWAY**

# editorial



## Man of many parts

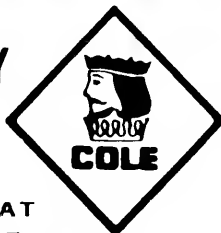
Dr. Charles F. Brodel, entomologist at the Massachusetts Cranberry Experiment Station, not only writes an informative, cogent and neatly phrased piece on insect matters. He also creates excellent illustrations to assist the reader. And, this time, he's also added a cartoon. His offerings, on economic thresholds and cranberry pest management, are in this issue.



**STOCKS & BONDS**  
have been our business for over 45 years.  
We are easy to reach.  
Call us for what YOU need to know.

**Gage-Wiley & Co., Inc.**  
40 Court Street, Plymouth, Mass. 02361  
**617-746-3322 Call Toll Free in Mass. 1-800-242-0263**

## WISCONSIN CRANBERRY HEADQUARTERS FOR



EVITAL • SOLO • DIQUAT  
2-4-D • DOWPON • ETHREL  
SEVIN • PARATHION • GUTHION • DIAZINON  
KOCIDE • DIFOLITAN • FERBAM  
COPPER SULFATE • PRINCEP

## Cole Chemical Supply

DIVISION OF *Hopkins* AGRICULTURAL CHEMICAL CO  
P.O. BOX 7211, MADISON, WISCONSIN 53707  
608-221-1581

## SCHOOL FOR FARMERS

A small farm demonstration and training center at Belchertown State School has been approved by the Massachusetts General Assembly.

The facility will provide educational opportunities for existing and new entry farmers in methods of small scale farming.

## CRANBERRIES

THE NATIONAL CRANBERRY  
MAGAZINE

—Our 44th Year of Publication—

VOLUME 44—NO. 10  
October 1980

Send correspondence to:

P.O. Box 249  
Cobalt CT 06414

Phone: (203) 342-4730

Bob Taylor, Publisher/Editor

### ADVISORS, CORRESPONDENTS

Massachusetts—Dr. Chester E. Cross, Director, Massachusetts Cranberry Experiment Station; Irving Demoranville, Extension Cranberry Specialist, Massachusetts Cranberry Station; Michael Couture, East Wareham, Mass.

New Jersey—Philip E. Marucci, Cranberry and Blueberry Specialist, Cranberry and Blueberry Laboratory, Chatsworth, N.J.; Mary E. Archibald, Collingswood, N.J.

Nova Scotia—I.V. Hall, botanist, Research Station, Kentville, N.S.

Oregon—Arthur Poole, Coos County Extension Agent, Coquille, Ore.

Washington—Azmi Y. Shawa, Horticulturist and Extension Agent in Horticulture, Coastal Wash. Res. and Ext. Unit, Long Beach, Wash.

Wisconsin—Vernon Goldsworthy, Eagle River, Wisc.; Tod D. Planer, Farm Management Agent, Wood County, Wisc.; Joan E. Humphrey, Friendship, Wisc.

CRANBERRIES is published monthly by the Taylor Publishing Co., Wellwyn Drive, Portland CT 06480. Second class postage is paid at the Portland, Conn., Post Office. Price is \$8 a year, \$15 for two years, 80 cents a copy in the U.S.; \$9 a year in Canada; \$10 a year in all other countries. Copyright 1980 by Taylor Publishing.

ISSN: 0011-0787

# Land use rivals crop concerns

By ELIZABETH M. CARPENTER

Long term leasing of state owned land for cranberry growing was among the topics at the recent semi-annual meeting of the American Cranberry Growers Assn. (ACGA) at the New Hedger House, Chatsworth, N.J.

Other highlights included estimates of the 1980 cranberry crop in New Jersey and the U.S., an explanation of the testing and labeling of Roundup, discussion of the recently adopted management plan for 368,000 acres of the New Jersey Pinelands and presentation of a citation to the N.J. Agricultural Experiment Station commemorating its 100th anniversary.

An afternoon tour of the Chatsworth based DeMarco cranberry bogs revived an association tradition of an annual visit to bogs of a local grower.

The day concluded with a visit to the Rutgers Research Bogs, Oswego. Here the efficiency of a

ditch digging machine was demonstrated and several weed wipers with adaptations for Roundup application were displayed.

MIKE FLINT, marketing analyst, New Jersey Crop Reporting Service, enumerated New Jersey grower observations of bloom, set of fruit and size of berries for August 1978, 1979 and 1980. Each classification was divided into three categories.

Bloom for 1980 was similar to the two previous years, with 0 percent light, 41 percent average and 59 percent heavy. Set of fruit promises more berries per acre during the 1980 harvest with 7 percent light, 52 percent average and 41 percent heavy. This represents an increase in the heavy category of 14 percent over 1979 and 24 percent over 1978. Overall size of berries appears average for this time of year with 9 percent classed as small, 84 percent as medium and 7 percent as large.

ADVERSE WEATHER conditions could prompt a decrease in 1980 production of 3 percent in New Jersey,

it was reported.

Although the New Jersey crop was exposed to June frost, prolonged periods of heat in July and August, an scattered thunder showers, no rot problems have occurred.

A change in weather conditions can have a significant impact on final production as the 1979 August forecast vis-a-vis the final cranberry production figures reveal, Flint said. New Jersey increased by 5 percent, Massachusetts and Washington remained the same, while Oregon dropped 13 percent and Wisconsin dropped 1 percent. Flint concluded that the key to increased 1980 New Jersey production is much needed rain.

ROBERT BRUCH, agricultural economist with the Division of Rural Resources, N.J. Department of Agriculture, presented a six month progress report on lease back arrangements of state-owned land for cranberry and blueberry growing.

Bruch said land is being purchased by the N.J. Department of Environmental Protection (DEP) with money

(continued on page 13)

A MOST COMPLETE INVENTORY OF  
IRRIGATION ACCESSORIES



# LARCHMONT

ENGINEERING & IRRIGATION, INC.

P.O. Box 66, 11 Larchmont Lane, Lexington, MA 02173 (617) 862-2550

IRRIGATION EQUIPMENT DESIGNED ESPECIALLY  
FOR THE CRANBERRY INDUSTRY

— FOR EXAMPLE: —

*Gorman-Rupp Self Priming Electric Sprinkler Pumps*  
*Proven Quick Couple Riser*  
*Ingersoll-Rand Water Harvest Pumps*  
*Aluminum Insert Coupling For 4" Poly Pipe*

Contact:

Larchmont Engineering  
Phil Tropeano, President  
(617) 862-2550 (Call Collect)



Contact:

Bill Stearns, Plymouth, Mass.  
(617) 746-6048  
(617) 746-2610



## CAPE COD GROWERS . . .

(continued from page 4)

School, of which he is a graduate.

**CRANBERRY GROWERS** are "fed up" with vandalism on the bogs, said Doug Beaton of the association's reward committee. He spoke about the \$500 reward the association is offering to anyone who provides information leading to a conviction.

Beaton also mentioned forms that are being passed out to growers suffering damage so that a year end report can be made to local police, state police and the judiciary.

"There has been \$52,000 worth of damage so far on four forms I've gotten back," he said. "We might get into alarm systems, patrols and other means of protection. We want to know about problems because one grower lost 14 acres to fire started by vandals."

Speaking of rewards, Beaton said he already has made out one check for \$500 for an individual who provided a tip that led to the arrest several weeks ago of a vandal.

**DR. CHESTER E. CROSS**, director of the Massachusetts

Cranberry Experiment Station, praised highly Dr. Charles F. Brodel, station entomologist.

"He has brought a lot of youthful vigor to his job of controlling insects," Dr. Cross said. "We can also be grateful to cranberry growers who are aiding him."

Dr. Cross also gave plaudits to the station's Stan Norton (for his weed wiper invention); Karl Deubert (for his work with glyphosate), and Bert Zuckerman (for his work with ground limestone).

### JOHN DECAS REELECTED

The Cape Code Cranberry Growers Assn., which has members from the Cape to Duxbury, Mass., reelected John C. Decas as president at its recent annual meeting.

Also reelected were J. Clark Griffith, first vice president, and Irving E. Demoranville, secretary-treasurer. George J. Andrul was named second vice president.

Named to the board of directors were Douglas Beaton, Robert B. Hiller, William A.

Rhodes, W.H. Harju, Elton Ashley, Christopher Makepeace, David Mann, Robert St. Jacques and Arthur Handy. Dr. Chester E. Cross, director of the Massachusetts Cranberry Experiment Station, became ex-officio director and Ruth E. Beaton an honorary director.

M. C.

### CRANBERRY GROWERS REALTY

Listings of buyers and sellers welcomed on cranberry acreage and upland.

Appraisals

**DOUGLAS R. BEATON**

**E. Sandwich, Mass.  
02537**

**(617) 888-1288**



**Bog construction**

**Vine setting**

**Flumes and flume work**

**Bog sand**

**Nemasket Construction Co., Inc.**

**275 Wareham St., Middleboro MA 02346**

**(617) 947-1723**

# Economic thresholds and cranberry pest management

By DR. CHARLES F. BRODEL  
Massachusetts Cranberry  
Experiment Station

## The Word 'Threshold'

At one time or other, you have probably heard the word "threshold" used to convey an idea. For instance, if you scream when being victimized by a mosquito, you have likely endured the remark, "My, you have a low *threshold* for pain." If you are married, perhaps you recall being "carried over the *threshold*" or, as the case may be, asking your lover to perform that chivalrous feat.

In either usage, the word "threshold" implies a real or imaginary line separating one condition or state from another. There is a certain amount of pressure, stress or heat that the human body can stand without pain being sensed. Beyond a critical point, pain is realized. Similarly, one can approach the entrance to a home, but not until stepping over the door sill can one be considered inside.

## Pest Population Levels and Crop Losses

When speaking about insects and the damage they cause, the word "threshold" is coupled with

the word "economic" to create the phrase "economic threshold." An understanding of this type of threshold may be gained by carefully considering Figure 1.

In Figure 1, first notice that the graph (solid line) shows the insect pest population increasing (bottom to top) as time passes (left to right). When the pest population reaches or exceeds the "economic injury level," economically significant loss of crop should be expected. Control measures taken when this level is reached (point A) will cause the pest population to decline (dotted line) and preclude economic loss

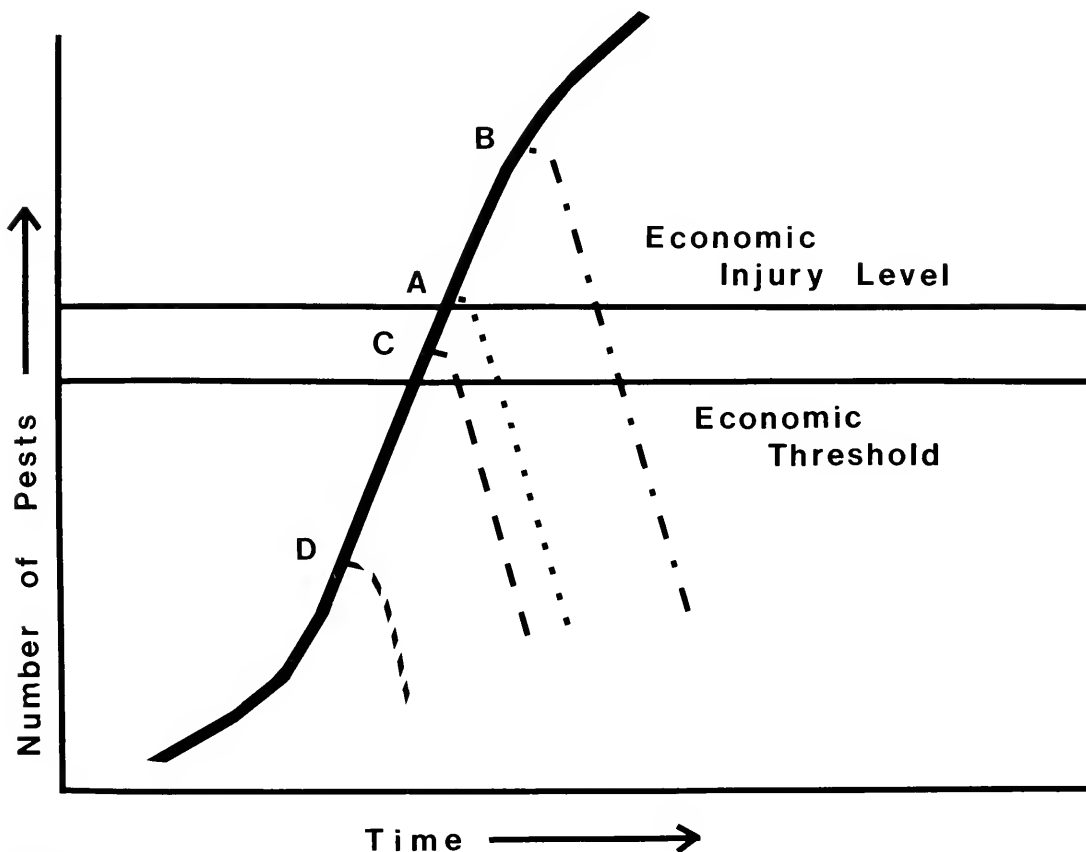


FIGURE 1

of crop. In this case, the cost of control measures will equal the value of the crop saved from pest depredation.

What happens if control measures recommended when populations reach the economic injury level (point A) cannot be implemented until later (point B)? Under these circumstances, the pest population will be

depressed (broken and dotted line), but substantial loss of crop will also result. The monetary value of damaged commodity will exceed the cost of control measures.

While examining the above two cases, you might have reached the following conclusion: Unless control measures are executed *immedi-*

IPM HARRY

*ately* after population levels reach the "economic injury level," the value of damaged crop will always exceed the cost of control. This conclusion is a correct one.

How can this undesirable situation be avoided? It can be avoided by carrying out control measures after the "economic threshold" (Fig. 1) is reached.

### Definition of

### 'Economic Threshold'

The "economic threshold" is a pest population level slightly lower than the "economic injury level." The threshold serves as a warning to the grower that crop loss is impending if control measures are not taken soon afterward. If control measures are carried out *before* the pest population reaches the "economic injury level," as at point C, the

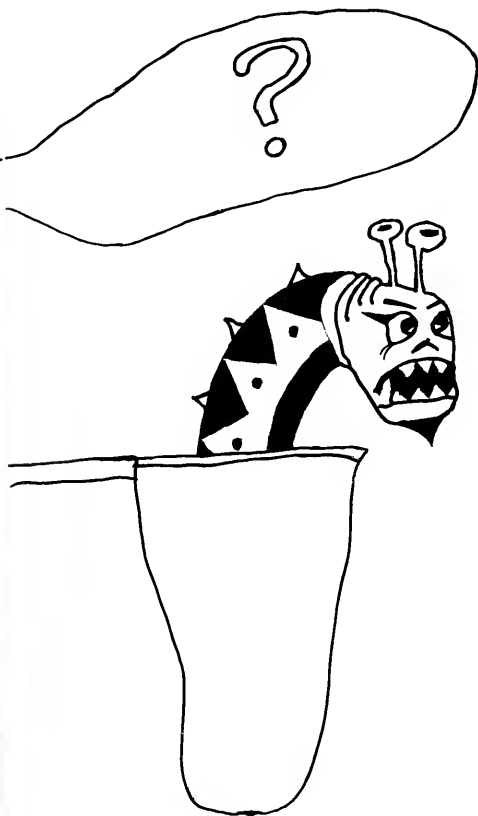
population will be depressed and no economic loss will ensue. Thus, the "economic *threshold*" separates a set of pest population levels at which no control measures are necessary from another set of populations where controls must be implemented to avoid loss.

### Dynamic Nature of the Threshold Level

Lest one believe that the economic threshold is a fixed, static level, please be advised that the level changes whenever one or more of the following factors change:

(1) Pest organism: A given number of pest A might inflict tremendous damage to a cranberry bog, whereas the same number of pest B might cause little or no

(continued on the next page)



CFB

"Hey, Harry, do you remember how many of these we need in 50 sweeps before we can spray?"

## ECONOMIC . . .

(continued from page 9)

damage. In Massachusetts, for example, it is generally accepted that four times as many spanworms as cutworms are needed to cause equivalent amounts of damage.

(2) Time of season: Some pests can inflict damage to a bog at more than one stage of vine development. At each stage of development, a different number of a given pest must be present to cause economic damage. It is probable, for instance, that different numbers of the cranberry weevil are needed to cause equivalent damage to buds in the spring and to fruits in the summer.

(3) Value of crop: As the value per unit volume of cranberries increases, the economic threshold for most pests decreases. In other words, when the profits per unit are higher, the grower stands to gain by controlling pests at lower population levels.

(4) Cost of control measures: As the cost of pesticides, labor, equipment and fuel increase, the economic threshold for most pests increases. In other words, as the expenditures for each spray application, bog flooding or sanding operation increase, the grower can afford fewer such measures without appreciably reducing his profits. Therefore, he or she must wait for pest populations to attain higher levels before exercising controls.

### Preventative Control Measures

Because the economic threshold is such a complex concept, you might be tempted to agree with a neighboring grower who says: "I don't bother to sample pest populations. Instead, I use a reliable material at about the same time each year, and, as a result, have no worries." But THINK first!

Ponder the pros and cons of his preventative approach to pest management.

If you do ponder the issue, you will discover that the only pro argument is that the grower, in his own mind, "has no worries." He feels that he is taking positive action against any pests "hiding" on his bogs. Actually, though, treating according to a schedule is a poor substitute for knowing which pests are present on the bog and at what levels. Let's look at Fig. 1 again and assume that a scheduled treatment occurs at point D. The pest population at that time is well below the economic threshold, which means that the cost of treatment will far surpass any damage inflicted by the pests. Why lose money controlling a few pests?

There are additional arguments against the preventative approach:

(2) A pest population does not always increase to an injurious level each year. Why treat in a

given year unless pests are known to be present?

(3) A pest population might attain the economic threshold at a different time each year. A scheduled treatment in some years will precede the increase of a pest population and thereby be totally

(continued on page 12)

## CORRUGATED CULVERT PIPE

and

## FLOW GATES

Aluminum - Galvanized  
Asphalt Coated

# Felker Bros. Corp.

MARSHFIELD WISCONSIN

Area 715 384-3121



## A Solid Investment

requires solid financing . . . and that's our specialty. Credit for equipment, land, buildings . . . all your financial needs. For Credit . . . Plus a full range of other finance-related services, see your local Farm Credit representative.

P.O. Box 7 Taunton, Mass. 02780 Tel: (617) 824-7578  
Office: Located on Rt. 44, ¼ Mile West of Rt. 24

# AGWAY



## BEAT INFLATION... Buy An AGWAY Package Building NOW!

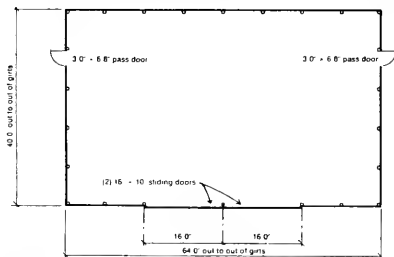
**CONSTRUCTION TO BE HANDLED BY YOU OR YOUR CONTRACTOR.)**

The price quoted by Agway is guaranteed for 90 days after signing the contract and covers all materials needed except plumbing, heating, electrical supplies, concrete floor, insulation and interior finishing products.

### PACKAGE INCLUDES:

- BLUEPRINTS designed to comply with most building codes.
- MATERIAL SPECIFICATIONS LIST.
- GUARANTEED ADEQUATE SUPPLY OF MATERIALS TO COMPLETE THE BUILDING when blueprints & specifications are followed.
- PLANNING ASSISTANCE including help with developing a total budget for the building: site cost, site preparation, electrical, plumbing, water, etc.

**FINANCING AVAILABLE** through Telmark, Agway's own financing company. Ask your salesperson for details.



### The 40/64 Closed Storage

40' x 64' x 12'

General purpose storage. Ideal for: • farm equipment • crop storage • building supplies • packaged goods • plumbing and electrical supplies • trucks and forklifts • wholesale warehouse

## AGWAY BUILDING MATERIALS

15 Washington St., Rte. 53  
PEMBROKE—Tel: 826-5171



New Store Hours Are: Mon., Tues., Wed., Thurs., Fri., 7:30-4:30. Sat., 8:00-4:30





## FRUIT TURKEY KABOBS

- 12 1-inch cubes (about 3/4 lb.)  
cooked boneless turkey roast
- 1 medium orange, cut in wedges
- 1 medium pear, cut in wedges
- 8 1-inch squares green pepper
- 4 small spiced crab apples
- 1/2 cup canned jellied cranberry sauce
- 1/2 cup apricot preserves
- 1/2 cup light corn syrup
- 1/4 cup lemon juice
- 2 tablespoons butter or margarine
- 1/4 teaspoon ground cinnamon
- Dash ground cloves

Thread pieces of turkey, orange, pear, green pepper and crab apples onto four 10-inch skewers. Combine remaining ingredients in saucepan. Bring to boil, stirring occasionally. Brush sauce over turkey and fruit. Place on grill and cook about 4 inches from coals, turning and brushing with sauce till meat and fruit are hot and well glazed, 5 to 10 minutes. Pass remaining sauce. Makes 4 servings.

## ECONOMIC . . .

(continued from page 10)  
ineffective.

(4) More frequent exposure of a pest population to a given pesticide accelerates the development of a resistance within the population to that pesticide. Once resistance develops, the pesticide has lost its usefulness.

(5) Parasites and predators often consume enough pests to maintain the pest population below the economic threshold. Yet these natural enemies are, in most cases, more vulnerable than is the pest organism.

Is your neighbor's preventative approach so inviting after all?

## Thresholds and the Future

It would be nice if cranberry entomologists could provide growers with an up-to-date threshold for every cranberry pest. The fact is that most thresholds are nonexistent or obsolete. In Massachusetts, for instance, the most recently issued threshold was for the cranberry fruitworm in 1966. Most sweep net thresholds now in use were determined during the 1930s and 1940s.

What can be done? In brief, cranberry entomologists must work to determine new thresholds for most pest species. It will take effort, time and much assistance—and the enthusiastic support and cooperation of all cranberry growers. But it *can* be accomplished. In these days of high costs and wages, more governmental regulation and greater public concern for environmental quality, it had *better* be accomplished.

## GROWERS HEAR TALK ON SOUTHERN BEES

You can lease chainsaws and vacation homes and just about anything else these days, including—as many a cranberry grower will tell you—bees for pollination.

At the annual meeting of the Cape Cod Cranberry Growers Assn. to explain bee leasing was Ralph J. Everett, field supervisor for the East Coast Pollination Co.

Everett explained that his company, which has offices in Knoxville, Tenn., and Arcadia, Fla., leases bees for \$24 to \$26 a colony.

The price includes insurance for everything except poisoning, bear damage and disease, he said.

A colony, he noted, consists of 64,000 bees.

"The life span of bees working in the bogs is about 36 days," he said, "because they literally work

themselves to death."

In a controlled environment, he added, they would live for five years.

Everett said the main problems for bees are bears, people and climate.

His company has eradicated climate by quartering the bees in Florida for the winter, he added.

M. C.

## MARKETING COMMITTEE NAMES PUBLIC MEMBER

After an interview of three candidates, the Cranberry Marketing Committee named Susan Nitzke as its public member at the committee's recent annual meeting at the Governor Carver Motor Inn in Plymouth, Mass.

Nitzke is a nutritionist with the University of Wisconsin, Madison.

Named as public member alternate was Rita T. Wood, a cooperative extension service home economist with Rutgers University.

**IN OTHER BUSINESS**, the body named Russell M. Lawton chairman and Richard Indermuehle vice chairman. Stephen Warnock was named secretary-treasurer.

It was voted to notify appellants that their appeals of awards from the reserve pool had been denied.

After a poll of members and fieldman, the committee came up with a higher estimate for the 1980 crop—2,521,666 bbls.—than did the USDA—2,475,000.

The committee's average estimates were: Massachusetts, 1,087,500; New Jersey, 226,666; Oregon, 88,000; Washington, 136,000; Wisconsin, 983,000.

The committee predicted that foreign production would be 175,000 bbls. and that, with U.S. production rounded off to 2,522,000 bbls., total cranberry production would be 2,697,000 bbls. Carry in as of Sept. 1, 1980 was estimated at 700,000 bbls. and 5 percent shrinkage at 135,000 bbls., leaving a total market supply of 3,262,000 bbls. as against a total trade demand of 3,281,450, for a deficit of minus 19,450 bbls.

By unanimous vote, the assessment rate was set at 3 cents a barrel.

## LAND USE RIVALS . . .

(continued from page 6)

from various funding sources, such as Green Acres, Fish and Game, and Land and Water Conservation. The department wants these state lands, where appropriate, to be available for agricultural use, he added.

Growers should have equal leasing opportunity, Bruch remarked. To facilitate this, a brochure detailing bid procedure will be developed within the next year. An effort also will be made to identify state lands with agricultural potential in addition to those currently leased.

Bruch said the staff looks forward to working as intermediary between interested growers and the DEP in obtaining long-term leases. He added that the department ultimately envisions this program will extend to all state-owned land, including upland agricultural areas.

JOHN WILSON, Growers' Relations, Ocean Spray, explained the complexities involved in getting the Monsanto weed killer, Roundup, tested and labeled for use in cranberry bogs.

Research involving study of residue

samples is being completed in major cranberry producing states, he said. New Jersey is involved in this project.

Monsanto has prepared a product label that has been submitted to the Environmental Protection Agency (EPA) for approval. Recommended application of Roundup on bogs is not to exceed 20 percent, it can only be applied as a weed wiper treatment and it is not to be wiped on weeds within 30 days prior to harvest.

Wilson said Ocean Spray is continuing to push for EPA approval. The goal is Roundup use on bogs within a year.

ANTHONY ESSER, natural scientist, New Jersey Pinelands Commission, updated growers on some of the changes made by the 13 member body in the Comprehensive Management Plan for the 368,000 acre Preservation Area

(continued on the next page)

## Niemi Electric Co.

ROBERT NIEMI

ELECTRICAL CONTRACTORS

HEAT, LIGHT and POWER WIRING

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL



TEL. 295-1880

Robert Niemi

Pinchurst Dr.

Wareham, Mass.

## DIRECTORY for Cranberry Growers

### The CHARLES W. HARRIS Company

451 Old Somerset Avenue  
North Dighton, Mass.  
Phone 824-5607

AMES

Irrigation Systems

RAIN BIRD

Sprinklers

HALE

Pumps

Highest Quality Products

with Satisfaction Guaranteed

Office  
295-2222

K. Beaton  
295-2207

## BEATON'S CRANBERRY GROWERS SERVICE



D. Beaton  
888-1288

WAREHAM, MASS.

P. Beaton  
947-3601

Specializing in

- DITCHING
- SANDING
- COMPLETE BOG MANAGEMENT
- NETTING
- WEED CLIPPING
- HARVESTING (Wet and Dry)

Also

Complete line of portable Crisafulli Pumps 2" - 16"  
Plastic netting for suction boxes

## LAND USE RIVALS . . .

(continued from page 13)  
described as "the heart of the Pines" prior to its adoption.

The plan, Esser says, emphasizes promotion of agriculture as well as preservation of water quality.

The plan condones a variety of agricultural practices, including a grower's right to extend his bogs into Atlantic White Cedar swamps on his property; continued use of existing state and federal water quality standards; resource extraction by a farmer on his private land; bog sanding; use of pesticides adjacent to agricultural land; installation of above ground utilities on farmland; and planting of any crop compatible with the soil.

Agricultural housing for employees is regarded as an authorized use in the Preservation Area and existing farm-related facilities may continue as they are. Finally, in response to a question about vandalism and trespassing, Esser said the commission has no jurisdiction over trespass laws but is working with state agencies to promote an effective law.

**STEPHEN LEE III**, ACGA representative on environmental matters, reflected growers' concerns that the Pinelands Comprehensive Management Plan could have a negative impact on the Preservation Area's agricultural land value and farming activity. He reported profits reached a new high in the 1970's with more berries being grown and sold than ever before. However, the 1980's promises to be the decade of regulatory obstacles, he said.

Lee anticipates land use problems in the 1980's, with a key issue being sale on the open market of development credits, the value of which have yet to be established. State government has not volunteered to pay for these and individual land owners will not.

Therefore, it appears a segment of the N.J. taxpaying public will pay for this Transfer of Development Rights (TDR), he said.

The privilege of increased residential development in parts of the Pinelands' Protection Area abutting the Preservation Area will be borne by builders who may pass additional costs of possibly \$4,000 to \$5,000 per house on to prospective buyers, he remarked.

"Is this fair for all," he asked.

Anticipating the possibility of state-wide agricultural zoning, Lee noted that farmland soon might be designated as "sensitive," as are state wet lands and flood plains. In order to maintain flexibility in the use of their land as well as just compensation for it, growers have started a legal effort, he said. He added that donations of time and money are welcome.

**A NOTE OF HISTORIC INTEREST** was sounded with presentation of a citation from the ACGA to the N.J. Agricultural Experiment Station commemorating the station's 100th anniversary, dating from March 10, 1880. Representing the growers, Edward V. Lipman, son of the late Jacob Lipman, dean and director of the N.J. Agricultural Experiment Station at Rutgers from 1916-1940, presented the citation to his son, Edward V. Lipman Jr., assistant dean of Cook College, who accepted it on behalf of Grant F. Walton, dean of the Agricultural Experiment Station, Cook College, Rutgers.

**AFTER LUNCH** association members drove to the bogs of A. R. DeMarco Enterprises. Jets of water from the vast irrigation system arced over acres of cranberry vines, prompting a Texas visitor to contrast the scene with the parched conditions in his home state. The appearance of an abundant crop in numerous bogs attested, in part, to the value of this

kind of overhead irrigation system, particularly during prolonged dry periods.

**PHILIP E. MARUCCI**, research professor in entomology and extension specialist in cranberry and blueberry culture, presented historical information, explained cultivation practices and listed harvest records at each of the six bogs visited—Stevens, New Cropper, Old Early Black, Wilcox, Cropper and Howe.

The four year old Stevens bog, notable for its flowering and fruiting uprights, produced approximately 200 barrels per acre in 1979. Weed control in this bog was enhanced by the application of 95 pounds of 5 percent Evtal applied 10 days after the 1976 planting and again in the spring of 1977.

The New Cropper bog, planted on June 5, 1980, was started with prunings kept in a reservoir during the past winter. Ninety five pounds of 5 percent Evtal were applied on the day of plantings and vines have been irrigated and fertilizer applied to induce growth.

No herbicides have been used for a number of years on the comparatively weed free Old Early Black bog and it compares with the best in Wisconsin. The 1980 crop in this bog appears to be very large.

The Wilcox bog, one of two in New Jersey, has an excellent record of production, averaging an annual yield of approximately 200 barrels per acre. Disadvantages attributed to the berries' elongated shape include uneven color, late ripening and relatively poor bouncing. However, these are outweighed by excellent and consistent production. Marucci recommends more Wilcox be planted in New Jersey.

Several years ago, Cropper, the late Anthony R. DeMarco's favorite variety, suffered severe damage from false blossom disease. Recent production of 303 barrels per acre on this bog is a tribute to persistent work, including late holding and leafhopper control that has resulted in almost complete elimination of the virus.

The Howe variety was virtually eliminated from New Jersey by false blossom disease and tip worm. However both these conditions are well controlled now and this variety is making a comeback in the state. The bog viewed produces close to 200 barrels per acre.

Marucci invited growers to conclude the afternoon with a visit to the Rutgers research bogs, Oswego, where experimentation and research necessarily take precedence over cranberries harvested per acre.

Along the periphery of a Rutgers bog, Ernie Bowker

## BARK RIVER *Culvert and Equipment Co.*

(Wisconsin-Michigan Growers)

**ALUMINUM HEADGATES FABRICATED  
TO YOUR SPECIFICATIONS**

**HAND WHEEL OPERATED GATES**

**ALUMINUM CORRUGATED PIPE**

**INTERNATIONAL POWER UNITS**

**INTERNATIONAL CRAWLER TRACTORS**

**WARNER & SWASEY EXCAVATORS**

**WALDON LOADERS AND USED EQUIPMENT**

Eau Claire, Wis.  
715-835-5157

Escanaba, Mich.  
906-786-6920

Milwaukee, Wis.  
414-461-5440

Madison, Wis.  
608-222-4151

Green Bay, Wis.  
414-435-6676

Ironwood, Mich.  
906-932-0222



**INTERNATIONAL CONSTRUCTION EQUIPMENT**

INTERNATIONAL HARVESTER COMPANY

demonstrated the efficiency of a ditch digging machine as compared to a back hoe. The ditch digger speeds construction and maintenance of bogs, he said.

### THREE AREA GROWERS—

Thomas Darlington, Harry Moulter and Paul Burk—displayed weed wiping machines equipped with devices for herbicide application. These inventions are still in the process of being refined, with problems related to even application and steady flow of solution yet to be resolved.

Dr. William Welker, USDA, demonstrated a hand applicator he had constructed for weed elimination, consisting in part of a hockey stick with padded blade, back pack and tubing through which the herbicide can flow. Overall, considerable progress has been made in the development of weed wiping equipment in the past year, it was noted.

The winter meeting of the American Cranberry Growers Assn. will be held in February 1981.

## HIGH CROP IN '80 IS ANTICIPATED

The first forecast of U.S. cranberry production is for a crop of 2.48 million barrels, virtually the same as last year's record crop and 1 percent above 1978 production, Richard A. Blood, agricultural statistician, New England Crop and Livestock Reporting Service, reports. Based on early August conditions, Oregon and Wisconsin expect increases in production from a year ago, Massachusetts is unchanged, while Washington and New Jersey are expecting smaller crops.

**THE MASSACHUSETTS** crop is forecast at 1.08 million barrels, the same level as a year earlier but 8 percent percent below 1978.

New Jersey expects a crop of 245 thousand barrels, a decrease of 3 percent from 1979 but 10 percent above 1978, Blood noted.

Production in Wisconsin is forecast at 925 thousand barrels, 3 percent above last season and 13 percent more than the crop of 1978.

Oregon expects a crop of 96 thousand barrels, up 2 percent from both last year and 1978.

The Washington crop is forecast at 129 thousand barrels, down 12 percent from 1979 and 7 percent below 1978.

# weather watch

## MASSACHUSETTS

August was a warm month, averaging 1.8 degrees a day above normal. It was the seventh warmest in our records. Maximum temperature was 92 degrees on the 7th and 9th, minimum was 53 degrees on the 17th and 23rd. Warmer than average days occurred on the 16th and 19th through 22nd.

Rainfall totalled only 2.05 inches, which is 2¼ inches below normal. Rainfall occurred on 11 days, with 0.60 inch on the 3rd as the greatest amount. This was the 9th driest August in our records. We are now 9 inches below normal for the eight month period and nearly 20 inches behind 1979.

The summer has been very hot and dry.

I.E.D.

## NOVA SCOTIA

The latest report from British

# regional news notes

## Massachusetts

By IRVING DEMORANVILLE

Prof. Stan Norton attended the annual meeting of the North Atlantic Region of the American Society of Agricultural Engineers in Willimantic, Conn., from Aug. 4-7.

\*\*\*\*

The crowd, despite the threatening weather, was larger—about 350—than last year at the 93rd annual meeting of the Cape Cod Cranberry Growers Assn. at the Massachusetts Cranberry Experiment Station.

The only change in officers was that George Andruk moved up to second vice president and Elton Ashley Jr. was added as a director replacing Paul Morse. Paul was a most helpful and productive

Columbia states that the cranberry crop was about two weeks delayed compared to normal years.

In Nova Scotia, weather has continued cool and wet with the exception of two days in the second week of August. During this period I had the good fortune to take a visit in Peace River District of Alberta. Harvest of rapeseed and barley was just beginning there at that time.

I.V.H.

## WASHINGTON

July brought a summer day on the 22nd with 93 degrees registered for the previous 24 hours, the 21st registered 76 degrees and the remainder of the month was in the 60's. The minimum was 42 degrees on the 29th. Precipitation for July totaled 1.36 inches, which is above normal.

Cooler temperatures returned for August and the maximum of 68 degrees was registered during the 24 hours previous to 8 a.m. on the 30th. The thermometer dropped to 36 degrees on the 29th and the bog low was 35 degrees. Precipitation for August totaled 1.10 inches. The total for the year, 41.86 inches, is 5.84 inches below average for this time of the year.

A.Y.S.

member of the board for many years and deserves a well done thank you.

\*\*\*\*

The official crop estimate released by the New England Crop Reporting Service indicated a prospective crop of 1.08 million barrels for Massachusetts, the same as last year, which was our second largest crop on record.

This figure may be shaved some, as we are in a drought condition and water supplies are seriously affected. Generally berry size is small, color is very poor and quality appears good at this time. Only heavy rains of at least 3 or 4 inches will help some growers to have enough water for frost protection and harvesting.

## Washington

By AZMI Y. SHAWA

The Washington County Extension Agents Assn. held its summer meeting recently at the Chautauqua Lodge. The group visited the Coastal Washington Research and Extension Unit, and was given a slide presentation about cranberry production and a tour of the bogs, hosted by this writer.

# 1930 - 1980 50 YEARS OF SUCCESSFUL COMMITMENT

- To handling members' crops — all year, every year
- To developing and expanding the market for members' crops — nationally and internationally
- To generating consumer acceptance of the Ocean Spray trademark as the standard of excellence for the industry
- To increasing grower returns at a rate consistent with long-term stability and growth

Ocean Spray: the handler of choice now  
— and for the years ahead



Ocean Spray Cranberries, Inc., Plymouth, MA 02360

# CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

Vol. 44, No. 11

November 1980

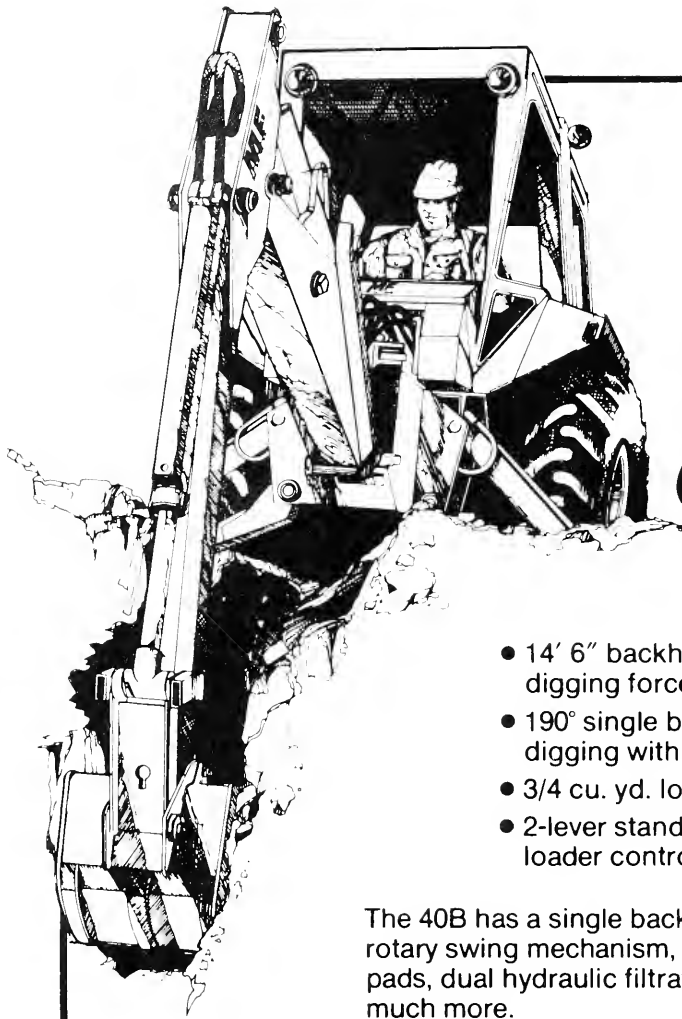


Library UMass  
Serials Section  
Amherst MA 01002

**Chemicals & bees . . . 3**

★★★★★

**Tomato joins coop . . . 11**



# **MF 40B:** **a lot of** *ditching for* **your dollar.**

- 14' 6" backhoe digging depth with 9,885 lbs. digging force.
- 190° single bucket linkage . . . straight wall digging with no special adjustments.
- 3/4 cu. yd. loader with increased lifting capacity.
- 2-lever standard backhoe control and single lever loader control.

The 40B has a single backhoe mounting system, improved rotary swing mechanism, new stabilizers and hinged stabilizer pads, dual hydraulic filtration system to 10 microns, plus much more.

The smart investment in a heavy-duty backhoe/loader.

SEE US FOR QUALITY NEW AND  
USED EQUIPMENT





# Cranberry station director replies to pesticide attacks

By CHESTER E. CROSS  
Director, Massachusetts  
Cranberry Experiment  
Station

Farmers who use pesticides are being severely criticized by the editor of a beekeepers' newsletter.

Furthermore, the editor, Mrs. Ann Forrester, whose organ is the newsletter of the Massachusetts Federation of Beekeepers Associations, is collecting signatures nationwide in an effort to get the Environmental Protection Agency and the Federal Aviation Administration to require that all nearby abutments be asked to approve each application of pesticide to a farmer's property.

Mrs. Forrester makes many allegations about pesticide use in agriculture which are biased, inaccurate, emotional or false.

**CRANBERRY GROWERS** will be interested in this quote from her recent addendum to the July 1980 newsletter:

"The pesticide prediction (myth) envisaged the development of new pesticides and new application techniques so that every pest problem could be solved by a remedy specific to the insect in question, and having no harmful side effects . . . and that we would have a pest-free planet by the year 2000."

Mrs. Forrester cites no source for the above prediction, and it is hard to imagine any competent professor of agriculture or entomology being so sanguine about the future of pest control.

Several years ago, the scientists at the Cranberry Station tested an experimental herbicide that proved very effective in

controlling nutgrass, *Cyperus dentatus* Torr., a very common and troublesome weed in cranberry bogs. The compound did not have any measurable effect on the cranberry vines,

flowers, or their production of cranberries

It was a very interesting, selective herbicide and our findings were communicated to the manufacturer with the estimate that 5,000 acres of cranberries might be profitably treated to control the nutgrass if the compound was found safe to handle, left no significant residues on the cranberries and was found to cause no environmental upset.

The manufacturer then proceeded to have the compound tested in other crops, where different species of nutgrass were problems. On these, the experimental compound was

(continued on the next page)

## COVER PHOTO

MRS. CHARLENE LAWSON screens berries at the cranberry exhibit displayed at the 12-day long Eastern States Exposition held recently in Springfield, Mass. Thousands viewed the exhibit. Other photos on pages 8 and 9.

(Photos by CRANBERRIES)



## A Solid Investment

requires solid financing . . . and that's our specialty. Credit for equipment, land, buildings . . . all your financial needs. For Credit . . . Plus a full range of other finance-related services, see your local Farm Credit representative.

P.O. Box 7 Taunton, Mass. 02780 Tel: (617) 824-7578  
Office: Located on Rt. 44, ¼ Mile West of Rt. 24



## CRANBERRY STATION . . .

(continued from the preceding page)

completely ineffective. The compound was apparently specific for the cranberry nutgrass and for nothing else.

In no way could the manufacturer pay the cost of development, find the answers to residue and environmental problems and pay the costs of EPA registration with any prospect of getting a return on the investment. The whole subject was dropped forthwith, and the Cranberry Station, like similar institutions elsewhere that are concerned with minor crops, went back to work with compounds and techniques used on major crops, where the future market is great enough to carry the increasingly heavy burdens of development and registration costs. So much for specific pesticides for specific pests—it is feasible and possible only for the major food crops.

# DIRECTORY for Cranberry Growers

## The CHARLES W. HARRIS Company

451 Old Somerset Avenue  
North Dighton, Mass.  
Phone 824-5607

**AMES**

*Irrigation Systems*

**RAIN BIRD**

*Sprinklers*

**HALE**

*Pumps*

Highest Quality Products  
with Satisfaction Guaranteed

**THIS WRITER SUSPECTS,** however, that Mrs. Forrester learned about the “pesticide prediction” and the “pesticide myth” by reading in the Audubon literature. The writers about pesticides in the Audubon organizations have shown themselves to be eloquent in theory and weak in fact.

A single illustration in confirmation of the above must suffice. On page 3 of the Massachusetts Audubon Newsletter for May-June 1971, in paragraph 4, is found the following: “One such ‘enemy,’ the gypsy moth, has been frustrating man for more than a century. The knockout punch that man counted on was DDT—but it failed. In fact, biologists now say, it actually spread the gypsy moth, making it more annoying.”

This statement is simply not true. The 1949 spray on Cape Cod was so effective in eliminating the heavy population of gypsy moths that the USDA made immediate plans for the Plymouth County spray in 1950.

I was living on Cape Cod when the DDT spray was applied to the gypsy moth in 1949 and I was working daily in adjacent

Plymouth County in 1950 when, it, too, was sprayed with DDT for the control of the gypsy moth. I saw no cranberry bog under attack by gypsy moths, nor did any grower report the presence of this pest on his bog for many years.

The gypsy moth, because of its absence, was removed from the annual cranberry pest control chart. Only in 1966, after 15 and 16 years of freedom from the pest, was a meeting called to familiarize growers with the gypsy moth

(continued on page 6)

## CRANBERRY GROWERS REALTY

Listings of buyers and sellers welcomed on cranberry acreage and upland.

Appraisals

**DOUGLAS R. BEATON**

**E. Sandwich, Mass.  
02537**

(617) 888-1288

# Baldwin Excavators



Mert Howes  
295-5542

Fred Locke  
866-2639

COUNTY ROAD  
W. WAREHAM, MASS.  
02576

Specializing in  
Agricultural Construction

*Flumes  
Canals  
Land clearing  
Sanding  
Water holes  
Ditching  
Dikes  
Grading*



## A curious campaign

Have you ever lived through a pre-election period that was quite as strange?

Have you ever met so many people who haven't made up their minds so close to the time they were to enter the voting booth?

The polls confirm what you sense intuitively. Even party workers at the grass-roots level aren't exactly exuberant about the candidates the major parties have fielded. And all this at a date when, in the past, people usually had firm opinions and were thinking and talking in partisan terms.

The situation can't be attributed simply to the candidates being made scapegoats for an economy and a world that seem topsy-turvy. The public is too smart for that.

The matter may betray a weakness in the nominating process. Or it may reflect a stagnation in the major parties. Certainly, it has a lot to do with Carter's dismal term and Reagan's foot-in-mouth disease. The polls indicate there may be a record low turnout. Many votes cast will be of the lesser-of-evils category.

Of course, you may want to shop around. There is John Anderson. And Ed Clark. And Barry Commoner. Even if one of them is your choice, and he has slight chance of being elected, a vote for him might influence the future direction of the major parties.

In the last analysis, the grower will cast his ballot for the candidate he believes will best provide those two mainstays: peace and prosperity. Add to those two basics an aversion for meaningless government regulation and government waste and big spending.

Who fits the bill? We hope your choice is the winner Nov. 4. *This* is not an endorsement editorial. At the time of this writing, we have not, for the only time in our memory, made up our mind yet. We're still lookin' 'em over. But every once in awhile, the thought of another four years of a Carter Administration slips into our consciousness and we get this feeling of . . . well . . . *blah*. Maybe the *blahs* will get to us.

## Terrific envoys

What a fantastic group of ladies!

The women who worked the cranberry exhibit at the Eastern States Exposition in Springfield, Mass., we mean.

They fielded questions deftly. They stayed fresh and smiling despite the long hours and huge crowds. Thousands come to the "Big E," baby.

A very rich, funny scene occurred when a couple of beery youths,

(continued on page 12)

## MILEAGE RATE HIKED

The Internal Revenue Service has increased the standard mileage rate deduction for auto business use.

The rate for the first 15,000 miles has been increased from 18.5 cents a mile to 20 cents a mile. The rate for use over 15,000 miles a year and for autos that have been depreciated fully has been increased from 10 to 11 cents a mile.

## CRANBERRIES

THE NATIONAL CRANBERRY  
MAGAZINE

—Our 44th Year of Publication—

VOLUME 44—NO. 11  
November 1980

Send correspondence to:

P.O. Box 249  
Cobalt CT 06414

Phone: (203) 342-4730

Bob Taylor, Publisher/Editor

### ADVISORS, CORRESPONDENTS

**Massachusetts**—Dr. Chester E. Cross, Director, Massachusetts Cranberry Experiment Station; Irving Demoranville, Extension Cranberry Specialist, Massachusetts Cranberry Station; Michael Couture, East Wareham, Mass.

**New Jersey**—Philip E. Marucci, Cranberry and Blueberry Specialist, Cranberry and Blueberry Laboratory, Chatsworth, N.J.; Mary E. Archibald, Collingswood, N.J.

**Nova Scotia**—I.V. Hall, botanist, Research Station, Kentville, N.S.

**Oregon**—Arthur Poole, Coos County Extension Agent, Coquille, Ore.

**Washington**—Azmi Y. Shawa, Horticulturist and Extension Agent in Horticulture, Coastal Wash. Res. and Ext. Unit, Long Beach, Wash.

**Wisconsin**—Vernon Goldsworthy, Eagle River, Wisc.; Tod D. Planer, Farm Management Agent, Wood County, Wisc.; Joan E. Humphrey, Friendship, Wisc.

CRANBERRIES is published monthly by the Taylor Publishing Co., Wellwyn Drive, Portland CT 06480. Second class postage is paid at the Portland, Conn., Post Office. Price is \$8 a year, \$15 for two years, 80 cents a copy in the U.S.; \$9 a year in Canada; \$10 a year in all other countries. Copyright 1980 by Taylor Publishing.

ISSN: 0011-0787

## CRANBERRY STATION . . .

(continued from page 4)

returning to Barnstable and Plymouth counties.

To say that DDT "failed" or that "it actually spread the gypsy moth" is a distortion of the truth which, despite my criticism to the executive vice president of the Society, was never corrected.

**AGAIN IN HER** addendum, Mrs. Forrester writes of "the fantastic growth in the use and misuse of pesticides and herbicides (emphasis added)." Food production professionals agree that a sizeable increase in use of pesticides has occurred, but misuse is another matter.

Enormous energies have been expended in testing new compounds and in providing data necessary for registration and safe use. Further, the EPA and USDA, in cooperation with the experiment stations and the extension services, have conducted the grower training and certification programs in all states to insure against misuse of registered pesticides.

What evidence, if any, does Mrs. Forrester have for the assertion of a fantastic growth in "misuse" of pesticides? Or is she merely writing about her preconceived notions?

Mrs. Forrester develops her theme for a "fantastic" growth in pesticide use by claiming that 200,000 lbs. of pesticides were produced in the U.S. in 1950. From this small beginning, she shows an increase to 1.6 million lbs. in 1978. She cites no source for these figures, but of course the lower the figure for 1950, the greater will be the annual percentage increase to that of 1978.

It can be shown with a high degree of accuracy that two herbicides used on cranberry bogs in Massachusetts alone in 1950 could account for all the 200,000 lbs. of pesticides produced in the U.S. that year. Obviously her figure for national usage in 1950 is spurious.

One of the two herbicides mentioned above is ferrous sulfate which was, and still is, used to control ferns and mosses in cranberry bogs. Mrs. Forrester frequently uses "pesticides" and "poisons" as synonymous, so it should come as a great relief to her that ferrous sulfate is the same compound that is used to

add iron to babies milk formulas!

**ANOTHER BIT** in the addendum states: "Thirty years of almost uncontrolled growth of the pesticide industry has failed to eradicate one insect pest."

Eradication is rarely the goal of the pesticide industry. It has occasionally been successful on limited land areas, as on islands, but the object has been the control of pests to reduce their "take" of the crops so there would be more for people and domestic animals to utilize.

But Mrs. Forrester shows ignorance of her subject when she describes the pesticide industry as one of "almost uncontrollable growth." It is immediately obvious that she has not had to answer the questions of efficacy, toxicity, environmental concerns or residues—all of which must be answered and substantiated during the years of effort required before

EPA and FDA will register a compound for pest control on a food product.

And what is more, farmers across the U.S. are fully aware that if a registered pesticide is not used as its label directs, his crop may be seized and destroyed without compensation! The surveillance system used in this country is massive, with the result that our food supply is second to none in the world for quality as well as variety and quantity.

Probably my chief complaint concerning the editorials of Mrs. Forrester is that she writes as an advocate, presenting her anti-pesticide case with all her arguments against these "poisons" and the "poison laboratories" from whence they come. And yet she has nothing to say about

(continued on page 10)



## Straight Talk about Thanksgiving



Farming is  
everybody's bread  
& butter

It's that time of year again. The end of another season. The harvest is in, the equipment is put away, the land lies silent for its long winter rest.

It's Thanksgiving time. A time for giving thanks for our many blessings, for the bounty of our farms and ranches, for the good life that we enjoy.

But it's so easy for Thanksgiving to go by as just another holiday. Just a day for a good meal and a good game. So easy to forget what the real meaning of the day is: thanks giving.

We've so much to be grateful for. Let's make it a real day of Thanks Giving this year.

**Production Credit Associations of Wisconsin**

# AGWAY



## BEAT INFLATION...

### Buy An AGWAY Package Building NOW!

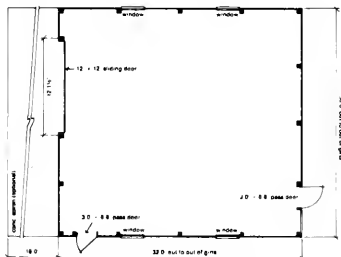
(CONSTRUCTION TO BE HANDLED BY YOU  
OR YOUR CONTRACTOR.)

The price quoted by Agway is guaranteed for 90 days after signing the contract and covers all materials needed except plumbing, heating, electrical supplies, concrete floor, insulation and interior finishing products.

#### PACKAGE INCLUDES:

- BLUEPRINTS designed to comply with most building codes.
- MATERIAL SPECIFICATIONS LIST.
- GUARANTEED ADEQUATE SUPPLY OF MATERIALS TO COMPLETE THE BUILDING when blueprints & specifications are followed.
- PLANNING ASSISTANCE including help with developing a total budget for the building: site cost, site preparation, electrical, plumbing, water, etc.

**FINANCING AVAILABLE** through Telmark, Agway's own financing company. Ask your salesperson for details.



### The 30/32 Shop

30' x 32' x 14'

Designed as a medium-size shop building for:

- appliance repair
- television service
- snowmobile repair
- farm shop
- plumbing shop

## AGWAY BUILDING MATERIALS

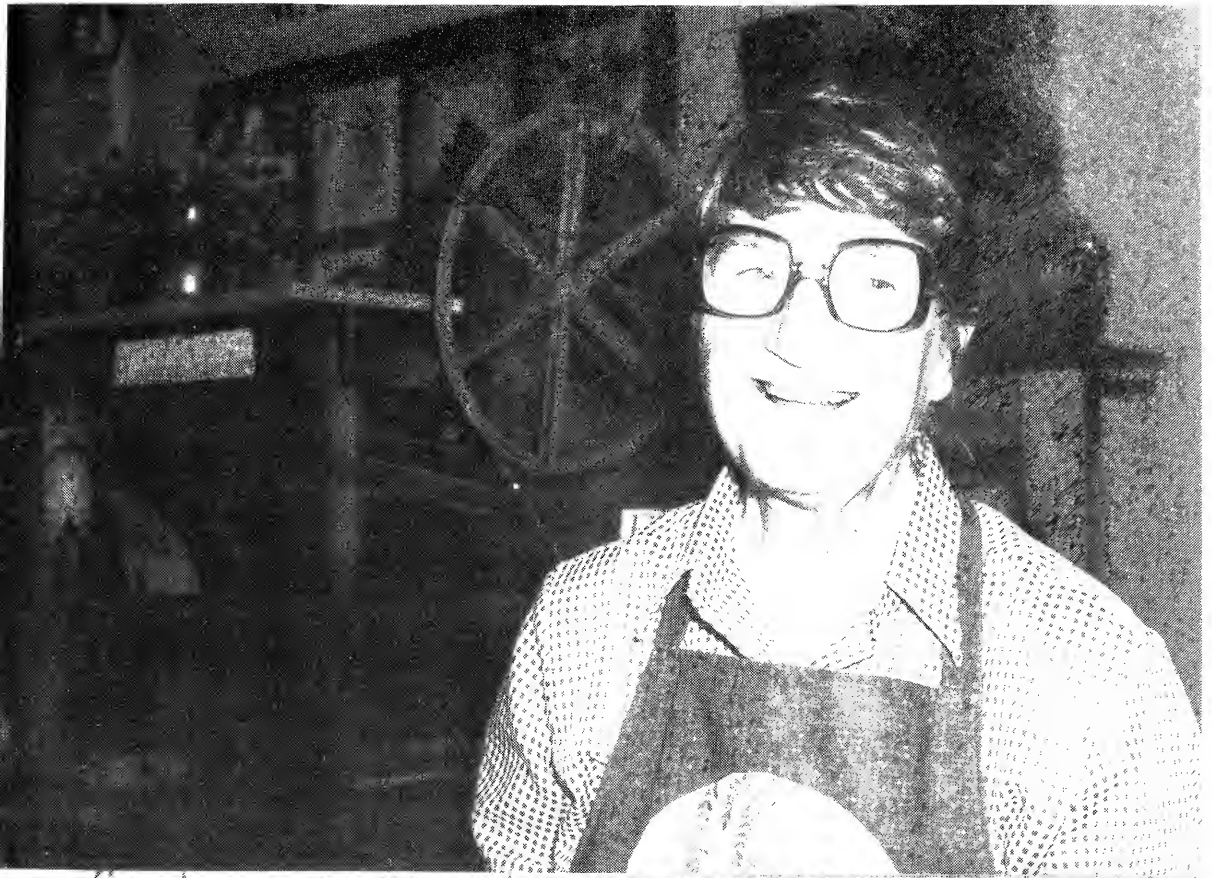
15 Washington St., Rte. 53  
PEMBROKE—Tel: 826-5171

New Store Hours Are: Mon., Tues., Wed., Thurs., Fri., 7:30-4:30. Sat., 8:00-4:30









# CRANBERRY STATION . . .

(continued from page 6)

the achievements attained with pesticides in agriculture or in human disease control.

The incredible arrest of the typhus epidemic in Italy during World War II by DDT made it possible for many of our boys to come

home, who would otherwise have found their final resting place overseas.

The same chemical in the World Health Organization's anti-malaria campaign reduced both the cases of malaria and death from the disease. In India this campaign increased life expectancy from 32 to 47 years. Removal or reduction of the malaria

hazard made it possible to cultivate huge tracts of wetlands for the production of rice.

Corn production per acre has increased from an average of 25 bushels 50 years ago to current yields averaging 100 bushels. Cranberry production in Massachusetts averaged 40 barrels per acre in 1950 and is currently at 100 barrels. Similar increases have been achieved with most commodities grown in the U.S. At least part of this bounty comes from improved insect, weed and disease control, making possible the feeding of increasing millions of Americans and leaving enough left over to relieve hunger and starvation elsewhere in the world.

MUCH HAS BEEN done in Mrs. Forrester's own state in the techniques of applying pesticides to the cranberry bogs to avoid harm to birds, bees and the aquatic environment. Many applications of insecticides and fungicides are made at dusk or after dark through sprinkler systems to avoid any direct spraying of birds and bees. Aircraft applications are made in early morning when wind velocity is less than 7 miles per hour. Drift problems have been sharply reduced by the abandonment of insecticide dusts. Granular herbicides do not drift onto neighbor's property.

There is no suggestion in the writings of Mrs. Forrester that the cranberry industry has for decades been using flood waters and its expensive resanding practice in conjunction with pesticides (when occasion required) in an integrated pest control effort.

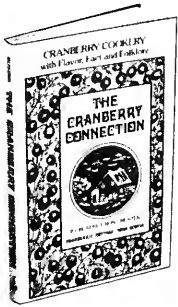
Fewer farmers now provide all the food, feed and fiber needed by this great country. They constitute a small minority of this country's work force and their political voice is correspondingly weak in the legislative councils where the rules and regulations governing farm activities are formulated.

Even so, farmers have made a tremendous contribution to the welfare of Americans. Their productive capacity is the envy of other nations, even if urban and suburban Americans have come to take it all for granted. In the opinion of many, the outcries of the anti-pesticide environmentalists are as exaggerated as they are loud, and just possibly vitally dangerous to the public weal.

## The scoop of the year!

*Cranberry Flavor, Fact and Folklore in*

**THE CRANBERRY CONNECTION**, by Beatrice Buszek. Your favorite berry pops up in kitchen-tested recipes for every delight from Cranberry Bog to Cranberry-Banana Bread, Cranberry Avocado Dip, and countless other desserts, drinks, salads, entrees. "A fascinating revelation of the many uses for cranberries . . . you'll find this book a treasure."—*Des Moines Register*. Paperback, \$7.95.



Please send \_\_\_\_\_ copies of **THE CRANBERRY CONNECTION**, \$7.95 each.

Name \_\_\_\_\_

Address \_\_\_\_\_

Zip \_\_\_\_\_

Add \$1.00 for postage; Conn. residents add 7% sales tax.

**CRANBERRIES MAGAZINE**  
P. O. Box 249, Cobalt, CT 06414

# Niemi Electric Co.

ROBERT NIEMI

ELECTRICAL CONTRACTORS

HEAT, LIGHT and POWER WIRING

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL

TEL. 295-1880

Robert Niemi Pinchurst Dr.

Wareham, Mass.



# New acquisition by Ocean Spray

Ocean Spray Cranberries Inc. has acquired the assets of Firehouse Foods Co., Ltd. of Westport, Conn., manufacturer and distributor of Firehouse Jubilee Tomato Cocktail.

Ocean Spray purchased the formula, trademark and existing inventory of Firehouse from the principal owners of Firehouse Foods Co., Ltd., who include Tom and Helen Lalley, originators of Firehouse Jubilee Tomato Cocktail. The Lalleys will be retained by Ocean Spray as consultants.

Using an old family recipe, they mixed their first batch of tomato cocktail for public consumption in the early 1950's when Tom was assistant chief of the fire department in West Redding, Conn. The product

eventually became somewhat of an institution in the community, being served as part of the fire department's annual fund raising jubilee.

UNTIL THE ACQUISITION of Firehouse Jubilee Tomato Cocktail, Ocean Spray's product line consisted solely of cranberry and grapefruit products, all based with fruit provided by the cooperative's grower-owners.

Ocean Spray president Hal Thorkilsen says that the cooperative decided to purchase Firehouse because of its unique potential and because it fits well into the cooperative's line of juices and drinks.

"It has a strong consumer franchise that promises a successful and substantial business," he said.

Thorkilsen said that Firehouse Jubilee has a distinct flavor with a slightly spicy character.



**FIREHOUSE JUBILEE** actually was originated by a fireman, who, with his wife, mixed the first batch in the early 1950's, using an old family recipe.

"In addition to a tomato juice base, it includes a marinated mixture of celery, onion, sweet pepper and spices."



**Bog construction**

**Vine setting**

**Flumes and flume work**

**Bog sand**

**Nemasket Construction Co., Inc.**

**275 Wareham St., Middleboro MA 02346**

**(617) 947-1723**



## TERRIFIC ENVOYS . . .

(continued from page 5)

straight out of a Brueghel painting, approached exhibit worker Jean Gibbs, expecting to kid her into tears of embarrassment.

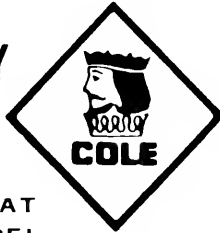
"Uh, what does that machine do?" asked one of the lads, pointing to the separator, while his partner tried suppressing the titters.

The cool Mrs. Gibbs didn't let on. She fixed them with a firm glance, a proper smile, and, with her resonant Lauren Bacall voice, delivered a precise, appropriately proportioned reply. Succinctly. She waited.

After several more exchanges of a similar nature, the lads, their game plan broken up, began to fidget. Just as calmly, just as masterfully, Jean Gibbs began to put them at ease, explaining to them the whole process without their need to supply the questions. They . . . damned it all . . . actually began to grow interested, despite their earlier intentions.

At the conclusion, she had them eating out of her hand. A mite sheepishly, they thanked her and made off for another exhibit.

## WISCONSIN CRANBERRY HEADQUARTERS FOR



EVITAL • SOLO • DIQUAT  
2-4-D • DOWPON • ETHREL  
SEVIN • PARATHION • GUTHION • DIAZINON  
KOCIDE • DIFOLITAN • FERBAM  
COPPER SULFATE • PRINCEP

## Cole Chemical Supply

DIVISION OF *Hopkins* AGRICULTURAL CHEMICAL CO  
P.O. BOX 7211, MADISON, WISCONSIN 53707  
608-221-1581

## MANAGEMENT TIPS FOR THE LATE FALL

By IRVING DEMORANVILLE

1- Casoron can be applied for control of many weeds, as listed on the weed control chart. It should not be applied until the weather turns quite cold (usually after Nov. 15).

2- Evital can be used for fall weeds as listed on the weed control chart. Rates of 100-120 lbs. per acre are best except for poverty grass and swith grass that require a slightly higher rate.

3- Devrinol is also good for fall application on newly planted areas. Forty lbs. per acre is sufficient.

4- This is an excellent time to rake and/or prune the bog. Also, do not forget the trash flood on dry, harvested bogs, where water supplies are available. These are very valuable practices that will keep the bog in shape for peak production next year.

5- Any bog that has not received sand for the past three years or more should be sanded as soon as possible, preferably this winter. Sanding, pruning and raking should be postponed until next spring on those bogs that do not have water for winter protection because the vines are more susceptible to winter injury following these operations.

6- Areas with fairy rings should be treated with Sul-Po-Mag as recommended on the fertilizer chart.

7- The fall Casoron treatment, followed by an application of kerosene-stoddard solvent in the spring is very good for control of blackberry and fresh meadow grass, and is quite helpful in controlling running bramble.

**STOCKS & BONDS**  
have been our business for over 45 years.  
We are easy to reach.  
Call us for what YOU need to know.

**Gage-Wiley & Co., Inc.**  
40 Court Street, Plymouth, Mass. 02361  
617-746-3322 Call Toll Free in Mass. 1-800-242-0263

CERTIFICATE FOR NOT MORE THAN SHARES

## CORRUGATED CULVERT PIPE

and

## FLOW GATES

Aluminum - Galvanized  
Asphalt Coated

## Felker Bros. Corp.

MARSHFIELD WISCONSIN

Area 715 384-3121

# weather watch

## MASSACHUSETTS

September was slightly on the warm side, averaging 0.6 degrees a day above normal. Maximum temperature was 88 degrees on the 22nd and the minimum was 37 degrees on the 28th. Warmer than average periods occurred on the 1st-3rd, 6th and 7th and 21st-23rd. Cooler than average days were the 15th, 16th, 24th, 25th, 27th and 29th.

Rainfall was a miserable 0.46 inch, which is about 3 1/3 inches below normal. There was measurable rain on only two days, with .34 inch on the 18th as the first and greatest for the month. This is the second driest September in our records, with 1930 as the record year.

The summer season, July through September, was the driest in our records, with July as the sixth driest, August the ninth driest and September

the second driest. We actually received only 1/3rd the normal rainfall. For the year to date, we are only 12.4 inches below normal and nearly 22 inches behind last year or about 1/2 of

that total.

I. E. D.

## NOVA SCOTIA

Cranberry harvest time arrived in

Office  
295-2222

K. Beaton  
295-2207

# BEATON'S CRANBERRY GROWERS SERVICE



WAREHAM, MASS.

D. Beaton  
888-1288

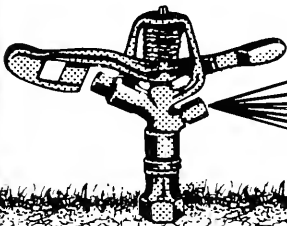
P. Beaton  
947-3601

Specializing in

- DITCHING
- SANDING
- COMPLETE BOG MANAGEMENT
- NETTING
- WEED CLIPPING
- HARVESTING (Wet and Dry)

Also

Complete line of portable Crisafulli Pumps 2" - 16"  
Plastic netting for suction boxes



# RASPBING.

AUTHORIZED AGWAY REPRESENTATIVE

LICENSED SPRAYING OF PESTICIDES (Seasonal)

WITH A COMPLETE LINE OF:

CRANBERRY INSECTICIDES • FUNGICIDES  
HERBICIDES • MITICIDES • and FERTILIZERS  
IN STOCK!

ROBERT A. ALBERGHINI - SPRAYING  
RFD 5 PLYMOUTH STREET, CARVER, MASS. 02330  
TELEPHONE: 866-4429

For further information, call evenings after 5:30

AGWAY

AGWAY

Nova Scotia at the end of September. With its arrival, there is always the threat of frost. We had at least three frosts here at Kentville, with the most serious ones on the mornings of Sept. 29 and 30. Fortunately, there was adequate water for sprinkler irrigation.

We expected that most of the berries would be harvested in time for our Thanksgiving on October 13.  
I.V.H.

## WASHINGTON

Precipitation for the month of September was 2.90 inches, bringing the total for the year to 44.76 inches, which is 6.68 inches below average. The greatest storm came prior to 8

# regional news notes

## Massachusetts

By IRVING DEMORANVILLE  
The general harvest began late this year.

a.m. on the 20th, with .66 inches total.

Temperatures during September were about normal, with four days with readings of 70 degrees and above. The warmest day recorded 84 degrees in the period from 8 a.m. Sept. 9 to 8 a.m. Sept. 10. The minimum was 40 degrees on the 3rd, 4th and 22nd.  
A.Y.S.

A very few growers began about Sept 10 or 11, but most waited until about the 17th.

Color was very slow to develop and was one reason for delayed harvesting. Size is generally average or less and quality appears very good to excellent.

Probably only about one third of the crop was picked by the end of the month, which means only about half of the Early Blacks were in.

Two frost warnings, on the 27th and 29th, but the cold temperatures did not occur, which was fortunate, as some growers were out of water for frost protection.

The Massachusetts crop is very difficult to predict and could decline if we do not get a substantial rainfall soon and if a bad frost happens.

However, at this time, we appear to be holding close to the August estimate.

\*\*\*\*

Dr. Charles Brodel attended the Eastern Branch Meeting of the Entomological Society of America in Baltimore, Md., from Sept. 23-26. Chuck presented a paper on resistance to aphids in red raspberry.

## Nova Scotia

By IVAN V. HALL

Bob Murray and I attended the Cranberry Workshop in Stevens Point, Wisc., Wisc., Sept. 2-5.

We were impressed by the cultural programs, the growth of the vines and the crop and the size of the operations in that state. To Drs. Dana and Boone, who organized the program, we say, "Well done."

## Washington

By AZMI Y. SHAWA

Harvesting began on a small scale in the Grayland and North Beach area in the last few days of September. The Long Beach harvest began Oct. 13.

\*\*\*\*

The author attended the National Cranberry Workshop Sept. 2-5 at the Holiday Inn Motel, Stevens Point, Wisc.

A MOST COMPLETE INVENTORY OF  
IRRIGATION ACCESSORIES



# LARCHMONT

ENGINEERING & IRRIGATION, INC.

P.O. Box 66, 11 Larchmont Lane, Lexington, MA 02173 (617) 862-2550

IRRIGATION EQUIPMENT DESIGNED ESPECIALLY  
FOR THE CRANBERRY INDUSTRY

FOR EXAMPLE:

*Gorman-Rupp Self Priming Electric Sprinkler Pumps*  
*Proven Quick Couple Riser*  
*Ingersoll-Rand Water Harvest Pumps*  
*Aluminum Insert Coupling For 4" Poly Pipe*

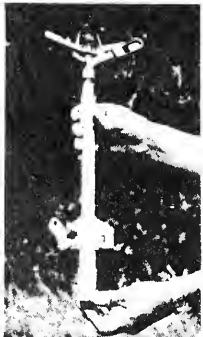
Contact:

Larchmont Engineering  
Phil Tropeano, President  
(617) 862-2550 (Call Collect)



Contact:

Bill Stearns, Plymouth, Mass.  
(617) 746-6048  
(617) 746-2610



# Cape Cod Cranberry Bread

**#4080** Our delicious Cranberry Bread is made from Cape Cod's oldest original recipe combining enriched flour, meaty walnuts, oranges, sugar and Cranberry Honey with other ingredients. The result . . . a delicious golden brown almost full pound loaf.

Available in several gift packages.

**A. One Loaf of Bread** . . . . . 2 lbs. packed \$3.50

**B. Three Loaves - a gift for yourself.** . . . . 6 lbs. packed \$8.95

## C. Jam n' Bread

Delightful and Delicious are the words for these two Cape Cod Cranberry Breads especially when they arrive with a 10 oz. jar of Peach Cranberry Preserve and a 10 oz. jar of Orange Cranberry Marmalade. . . . . 7 lbs. packed \$10.95

## Cape Cod Favorites

**#6080** This jelly assortment is made up of four favorites: a 10 oz. jar of Beach Plum Jelly, 10 oz. jar of Apple Cranberry Jelly, 10 oz. jar of Grape Cranberry Jelly and 10 oz. jar of Orange Cranberry Marmalade.

. . . . . 6 lbs. packed \$8.95

## Relish Sampler

**#580** A handmade Rooster Pot Holder oversees his flock of four 10 oz. jars of relish: two Cranberry, one Corn and one Red Pepper. This gift is something to crow about!

. . . . . 5 lbs. packed \$10.95

## An Orleans Breakfast

**#6280** A natural Clam Caddy holds 2 lbs. of old fashioned stoneground Buttermilk Pancake mix, a 12 oz. bottle of Cranberry Pancake Syrup, one half pint of pure Vermont Maple Syrup and a 3 oz. jar of Wild Flower Honey.

. . . . . 9 lbs. packed \$12.95

## Jumbo Jelly Assortment

**#1180** This large natural Clam Basket holds eight 10 oz. jars of Cape Cod jams and jellies. Included is one jar each of Grape Cranberry Jelly, one Crabapple Jelly, one Strawberry Cranberry preserve, one Blueberry Cranberry preserve, one Mixed Fruit preserve, one Apple Raspberry Jelly, one Cranberry Jelly and one Apple Cranberry Jelly.

. . . . . 12 lbs. packed \$19.95

## Letter Holder Scoop

**#2880** A smaller version of our magazine scoop but quite authentic; comes packed with a box of cranberry design notes and a pad of Cape Cod note paper; each page with a different design.

. . . . . 2 lbs. packed \$12.95

# CRANBERRY SHOP

Rt. 6 - 28 Cranberry Hwy., E. Wareham MA

**Bake Shop** - featuring our famous Cranberry Cheese Danish Super Muffins and Cranberry Bread. All made in our bakery.

**Coffee Shop** - Breakfast Special - French Toast, Cranberry or Maple Syrup 99¢.



**CAPE COD BY MAIL.** Send 25¢ for our Mail Order Catalogue sent out in September. Featuring Honey Cape Cod Gift Packages for the Holidays.

Send 25¢ to:

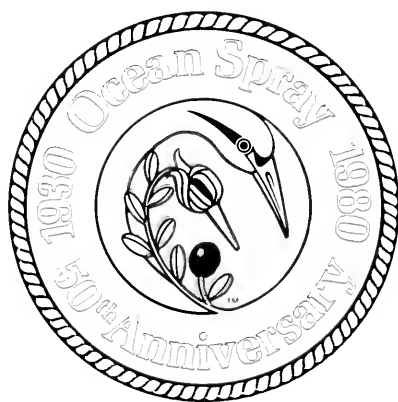
Cranberry Shop P.O. Box 503  
E. Wareham, Mass. 02538

Or: Stop by either of our shops and pick up one of our current flyers.

# 1930 - 1980 50 YEARS OF SUCCESSFUL COMMITMENT

- To handling members' crops — all year, every year
- To developing and expanding the market for members' crops — nationally and internationally
- To generating consumer acceptance of the Ocean Spray trademark as the standard of excellence for the industry
- To increasing grower returns at a rate consistent with long-term stability and growth

Ocean Spray: the handler of choice now  
— and for the years ahead



Ocean Spray Cranberries, Inc., Plymouth, MA 02360

# CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

Vol. 44, No. 12

December 1980

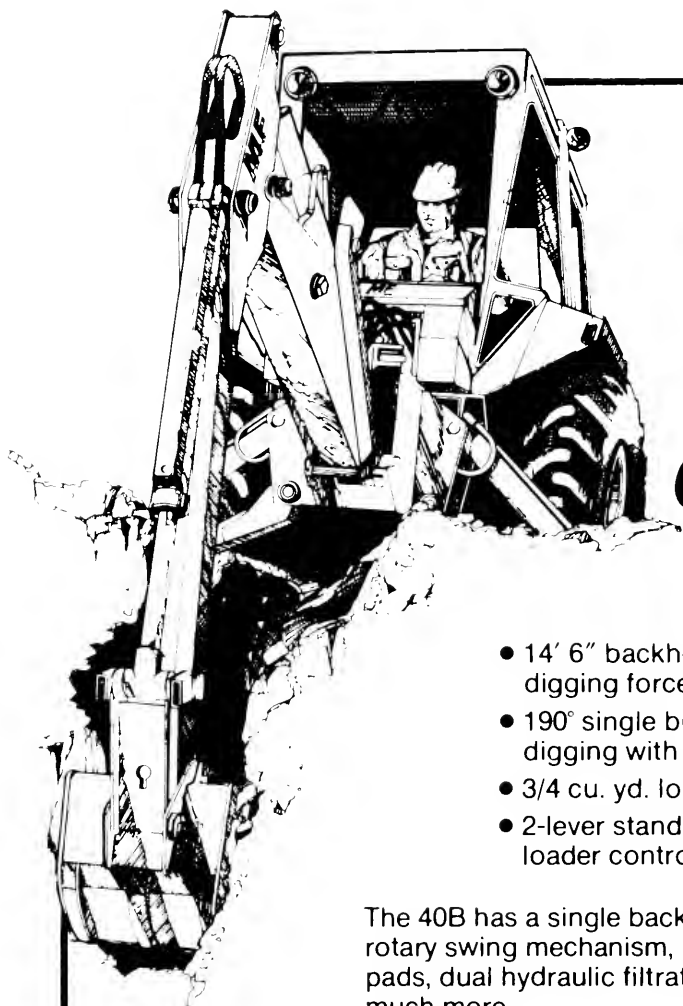


**Orthene and yields . . . 3**

★★★★★

**Four Badger marshes . . . 7**

Library UMass  
Serials Section  
Amherst MA 01002



# **MF 40B:** **a lot of** *ditching* **for** **your dollar.**

- 14' 6" backhoe digging depth with 9,885 lbs. digging force.
- 190° single bucket linkage . . . straight wall digging with no special adjustments.
- 3/4 cu. yd. loader with increased lifting capacity.
- 2-lever standard backhoe control and single lever loader control.

The 40B has a single backhoe mounting system, improved rotary swing mechanism, new stabilizers and hinged stabilizer pads, dual hydraulic filtration system to 10 microns, plus much more.

The smart investment in a heavy-duty backhoe/loader.

SEE US FOR QUALITY NEW AND  
USED EQUIPMENT





# Orthene: does it reduce cranberry yields?

By **DR. CHARLES F. BRODEL**  
 Massachusetts Cranberry  
 Experiment Station

For the past two years, Orthene 75S has been used by Massachusetts cranberry growers to control outbreaks of the cranberry brown spanworm. Consistently, grower reports on efficacy have been very favorable, especially when the insecticide has been applied to larvae within a week or two after egg hatch.

After the 1979 season, however, one observant grower was convinced that Orthene had reduced yield over many acres by about 40 percent. These reductions seemed to occur only where Orthene was applied in concentrate form from a helicopter, and not where it was applied in dilute form through a

sprinkler system. Also, the bogs on which bloom had begun seemed to incur greater reductions than those not yet in bloom.

The observations of this single grower, though not fully documented, were still cause for concern and action. In the summer of 1980, a preliminary field study was performed to attempt to substantiate adverse effects of concentrate Orthene on yield. The findings are



## COVER PHOTO

**LEONA OLSON**, president of Wetherby Cranberries Inc., operated one of 300 booths at the recent Warrens, Wisc., Cranberry Festival. Other photos are on page 6. (CRANBERRIES photos by Joan E. Humphrey)



reported here.

**PROCEDURES:** The experiment was performed on a section of State Bog uniformly vined with the 'Early Black' variety and uninfested with the brown spanworm. Three treatments included in the experimental design were (1) Orthene applied in water at the rate of 300 gallons per acre (=dilute), (2) Orthene applied in water at the rate of 13.1 gallons per acre (=concentrate), and (3) no application of Orthene (=control). Regardless of the volume of water used, Orthene 75S was applied at the rate of 1 pound of active ingredient or 1.33 pounds of formulation per acre. All spray treatments were applied with a 2-horsepower Hudson Suburban Power Sprayer at 80 pounds

(continued on page 8)

### Ditch

<b>B L O C K S</b>	<b>1</b>	<b>300</b>	<b>CONTROL</b>	<b>13.1</b>
	<b>2</b>	<b>13.1</b>	<b>300</b>	<b>CONTROL</b>
	<b>3</b>	<b>CONTROL</b>	<b>13.1</b>	<b>300</b>

### Ditch

### Dike

FIGURE 1. Block arrangement of field plots.

# regional news notes

## Massachusetts

By IRVING DEMORANVILLE

Still a few stragglers on Nov. 6 but the crop is about 98 percent harvested.

This is an amazing feat when one considers that there was precious little water around for frost protection and harvest. Then add that we issued 28 frost warnings, the most since 1974, and you wonder how we ever managed it.

The one lucky break was that the bad frosts did not happen until after the first week in October, so that many bogs without water were harvested.

The last 10 days of October saw bog temperatures generally in the teens, while on the night of Nov. 2 there were bog temperatures in the range of 5-10 degrees. There were a

total of 17 warnings in 1979, 22 in 1978, 11 in 1977 and 22 in 1976.

Quality has been generally excellent and size generally average with a few bogs with small berries.

\* \* \* \*

The latest USDA crop report shows Massachusetts at 1,080,000

barrels, the same as the August estimate. However, late returns indicate that this total is low and if we don't break our record of 1,180,000 barrels, we will push it hard.

(continued on page 13)

### Northern Wisconsin

#### CRANBERRY MARSH

600 acres near Hayward on Totgotic River.

53 acres producing.

Sprinklered & Equipped.

Stevens, Ben Lears, Searles.

*Century 21*

*E.C. Hoover & Assoc.*

*Box 128*

*Eagle River, Wisc. 54521*

*(715) 479-6402*



**AUTHORIZED AGWAY REPRESENTATIVE**

**LICENSED SPRAYING OF PESTICIDES (Seasonal)**

**WITH A COMPLETE LINE OF:**

**CRANBERRY INSECTICIDES • FUNGICIDES  
HERBICIDES • MITICIDES • and FERTILIZERS  
IN STOCK!**

**ROBERT A. ALBERGHINI — SPRAYING  
RFD 5 PLYMOUTH STREET, CARVER, MASS. 02330  
TELEPHONE: 866-4429**

For further information, call evenings after 5:30

**AGWAY**

**AGWAY**

# editorial



As one who long in populous city pent,  
Where houses thick and sewers annoy  
the air,  
Forth issuing on a summer's morn  
to breathe  
Among the pleasant villages and farms  
Adjoin'd, from each thing met  
conceives delight.

—Milton in Paradise Lost

## Economic realities

On the eve of the recent election, the perceptive columnist Sylvia Porter compared the state of the economy with what it was like four years ago.

"We are facing 1981," she said, "with the annual pace of inflation running at 13 percent, almost triple the rate four years ago."

"We are facing 1981 in what seems a weak, wavering recovery from a recession so short it has achieved nothing," Porter added.

She cited the prime interest rate at 14 percent against 6.25 percent four years ago.

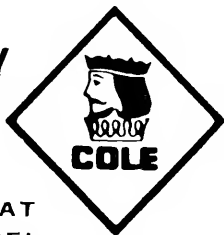
Mortgage rates, she noted, are at 13.5 percent in some areas, 15 percent in others, as compared to 9 percent four years ago.

"In buying power," she concluded, "we're almost 9 percent worse off than four years ago."

Toss in our silly, rattleheaded, weak sister image abroad and you have the reasons there will be new faces in the White House and Congress.



## WISCONSIN CRANBERRY HEADQUARTERS FOR



EVITAL • SOLO • DIQUAT  
2-4-D • DOWPON • ETHREL  
SEVIN • PARATHION • GUTHION • DIAZINON  
KOCIDE • DIFOLITAN • FERBAM  
COPPER SULFATE • PRINCEP

## Cole Chemical Supply

DIVISION OF *Hopkins* AGRICULTURAL CHEMICAL CO  
P.O. BOX 7211, MADISON, WISCONSIN 53707  
608-221-1581

## CRANBERRIES

THE NATIONAL CRANBERRY  
MAGAZINE

—Our 44th Year of Publication—

VOLUME 44—NO. 12

December 1980

Send correspondence to:

P.O. Box 249  
Cobalt CT 06414

Phone: (203) 342-4730

Bob Taylor, Publisher/Editor

### ADVISORS, CORRESPONDENTS

**Massachusetts**—Dr. Chester E. Cross, Director, Massachusetts Cranberry Experiment Station; Irving Demoranville, Extension Cranberry Specialist, Massachusetts Cranberry Station; Michael Couture, East Wareham, Mass.

**New Jersey**—Philip E. Marucci, Cranberry and Blueberry Specialist, Cranberry and Blueberry Laboratory, Chatsworth, N.J.; Mary E. Archibald, Collingswood, N.J.

**Nova Scotia**—I.V. Hall, botanist, Research Station, Kentville, N.S.

**Oregon**—Arthur Poole, Coos County Extension Agent, Coquille, Ore.

**Washington**—Azmi Y. Shawa, Horticulturist and Extension Agent in Horticulture, Coastal Wash. Res. and Ext. Unit, Long Beach, Wash.

**Wisconsin**—Vernon Goldsworthy, Eagle River, Wisc.; Tod D. Planer, Farm Management Agent, Wood County, Wisc.; Joa:1 E. Humphrey, Friendship, Wisc.

CRANBERRIES is published monthly by the Taylor Publishing Co., Wellwyn Drive, Portland CT 06480. Second class postage is paid at the Portland, Conn., Post Office. Price is \$8 a year, \$15 for two years, 80 cents a copy in the U.S.; \$9 a year in Canada; \$10 a year in all other countries. Copyright 1980 by Taylor Publishing.  
ISSN: 0011-0787

# Scenes from Warren fete Cranberries



SPECIAL GUEST of the Warrens Festival was beautiful Mary Rinas Miss Dominion of Canada. Ms. Rinas also is a former Miss World and Miss Universe candidate. Her chaperone for the event was Mrs. Duane Asp, president of the Greater Area Chamber of Commerce, Tomah, Wisc.



TOP PHOTO: Diane Lee, left, and Kathy Vanatta sell cranberry goodies from the Think Cranberry booth at the Warrens, Wisc., Cranberry Festival. Mrs. Vanatta worked with Jean Case and Kathy Knapp to compile and edit recipes, history and cranberry lore for the "Think Cranberries Cookbook." BOTTOM PHOTO: Trudy Johnson, Warrens Cranberry Festival queen, center, with the event's two princesses, Chris Andelbrandt, left, and Tamara Tessman.

(CRANBERRIES photos by Joan E. Humphrey)



# Cranberry experts tour marshes in Wisconsin

By MALCOLM N. DANA  
Professor of Horticulture  
Univ. of Wisconsin-Madison

Wisconsin hosted the recent third biennial gathering of research and extension workers involved with cranberry culture.

The professional cranberry workers of Massachusetts hosted the 1976 meeting and the West Coast laid out the welcome mat for the 1978 get-together.

**MEETING** at the Holiday Inn in Stevens Point, the group listened to informal talks by its members on insect and weed control programs.

The afternoon was spent touring the Whittlesey Cranberry Co. Marsh near Babcock and the Olson Bros. Cranberry Marsh near Warrens.

Mr. and Mrs. N.D. Jasperson welcomed the group to Whittlesey Cranberry with refreshments on a screened porch. The monstrous mosquito outbreak in Wisconsin encouraged the full enjoyment of the porch.

Mr. Jasperson recounted the history of the marsh, the oldest one established in the Cranmoor plain. The group observed the growing crop and the redevelopment of some old marsh for replanting in 1981.

The Olson marsh is developed in a sand marsh. Much of the planting has been done in the last 30 years, with several new acres planted in 1979 and 1980, with more land in preparation for 1981 planting. Many acres of this marsh are virtually weed free as a result of judicious use of Casoron and Evital on an annual basis where needed.

Allen and Curt Olson guided the group over the marsh and filled in cultural details where

requested.

**THE SECOND MORNING** dawned bright and windy and found the group taking off for the north. The first stop was at Ed Volhard's farm 9 miles west of Wausau.

Volhard has grown ginseng as a commercial crop for many years. His very candid discussion of cultural methods and the economics of ginseng was much enjoyed by the whole group.

Ginseng culture is a highly specialized crop production system involving soil fumigation, raised beds, planting of carefully stratified seed,

lathouse construction over the growing area and careful attention to disease and weed control.

The seedling plants require four years to produce a root of marketable size. The roots are harvested, cleaned, dried and sold for use in the brewing of ginseng tea. The Oriental cultures accept this tea for its reputed stimulant value. A few among the visiting group were successful in obtaining product samples.

The visit to Copper River Development Co. and Gerry Westphal was an opportunity to see a marsh

(continued on page 9)

de • pend (di-pen'd), v. t.  
being dependant upon; to  
de • pend • a • ble (di-pen'd  
worthy of trust; reliable.  
depend • a • bly (di-pen'd  
dependable manner.

## We try to live by Mr. Webster's definition



Credit for farmers  
and ranchers.

In the early 1930's, when Production Credit Associations were formed, the goal of the founding farmers was to establish a dependable source of credit.

They'd know the problems of having nowhere to go for money. And they wanted to build a business that would provide *dependable* credit to farmers *in good times and in bad*. That founders' goal has been our guide for more than 46 years.

When you work as long as we have to earn a reputation, you also work hard to keep it. So if *dependable* credit for farming is important to you, talk to us. You'll find that we'll do our best to be reliable and worthy of your trust.

**Production Credit Associations of Wisconsin**

## ORTHENE . . .

(continued from page 3)

pressure and delivery rate of about 0.6 gallons per minute.

In considering spray treatments, it was realized that the concentrate rate of 13.1 gallons per acre far exceeded the rate of 3 to 5 gallons normally applied by helicopter. Nevertheless, 13.1 had to suffice because it was the lowest volume which could be evenly dispensed through a hand-held spray gun. At this rate it took about 19 seconds to apply 0.18 gallons of water to 600 square feet of bog.

Field plots of 20 X 30 feet were arranged in 3 sets of blocks of 3, as shown in Figure 1. Each treatment was present in every block, and thus 3 of each treatment were present in the experiment. Blocks were separated by 5 foot pathways and plots within blocks by 10 foot pathways. Regarding experimental design, a completely randomized arrangement of plots could just as easily have been used, but it was felt that environmental differences between ditch areas and the middle of the bog would make resultant data much less

meaningful statistically.

Treatments were applied in the evening of June 24, which was characterized by clear skies, calm winds and a temperature of about 75 degrees F. An estimated 40 percent of the blossom buds had opened in all plots. Contrary to usual practice, sprinklers were not turned on the following morning so that honeybees could freely visit or avoid each of the plots. During the remainder of the season, parathion and captafol (Difolatan) were applied twice via sprinkler to control the cranberry fruitworm and fruit rot organisms, respectively.

The field plots were harvested on Oct. 16 and 17 with Darlington dry picking machines. After berries were physically separated from vines and debris, yield and berry size were assessed for each plot. An analysis of variance for randomized blocks was performed on the data.

**RESULTS:** Yield data are presented in Table 1. A statistical analysis of these data indicated no significant differences in yield among the 3 treatments (columns in table), and none among the 3 blocks (rows in table). Thus, the average yield in

untreated plots was essentially equal to average yields in plots treated with dilute or concentrate Orthene. Also, Orthene applied in 13.1 or 300 gallons of water per acre produced equivalent yields. (Among treatments, the average percentage of rotted and otherwise unsalable cranberries all approximated 8 percent and were within 0.7 percent of each other.)

Average cup counts for treated and untreated plots are given in Table 2. As with yield, a statistical test revealed no differences in cup counts among both treatments and blocks. It can be inferred, then, that the spray concentration of Orthene had no effect on berry size and that treated and untreated vines produced equally large berries.

### CONCLUSIONS AND

**DISCUSSION:** These preliminary data indicated that Orthene in dilute or concentrate form has no adverse effect on berry set or berry development. Further field trials are needed to substantiate this conclusion, however. In such trials, helicopters would apply Orthene 75S in 3 to 5 gallons of water per acre. If resultant data were to indicate reduced yields,

Table 1. Yields of plots treated with different spray concentrations of Orthene.

<u>Block</u>	<u>No. pounds berries/600 sq. ft.</u>			
	<u>Control</u>	<u>Orthene Concen</u>	<u>Orthene Dilute</u>	<u>Average</u>
1	187	207	201	198
2	203	222	258	228
3	201	196	198	198
Average	197	208	219	

control recommendations for brown spanworm would probably be modified. If the data were to agree with present findings, yield

reductions such as those observed in 1979 would have to be attributed to other cultural or environmental factors.

*Acknowledgement: Many thanks are extended to C. Amaral, P. Bailey, C. Foote and M. Ramsey for assisting with spray and harvest operations.*

Table 2. Size of berries from plots treated with different spray concentrations of Orthene.

Block	No. berries/8 fl. oz. cup <sup>a</sup>			Average
	Control	Orthene Concen	Orthene Dilute	
1	106	106	105	106
2	101	102	101	101
3	107	103	108	106
Average	105	109	105	

<sup>a</sup> Each value represents an average of 5 cup counts.

## CRANBERRY EXPERTS...

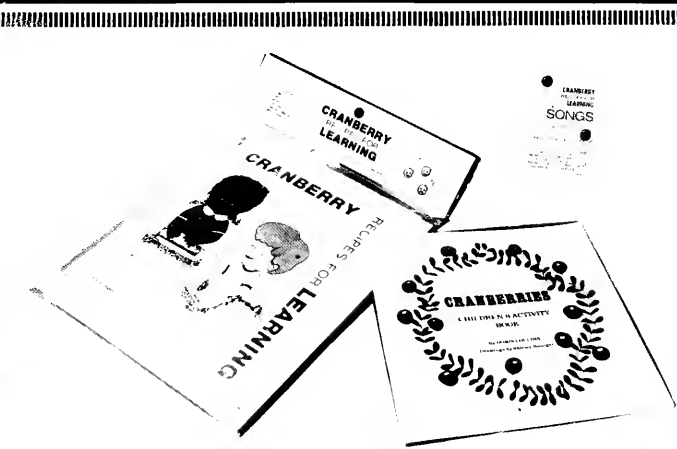
(continued from page 7)

isolated by many miles from any other cranberry property. A bumper crop on weed free beds obviously was the reward of excellent management. This marsh has produced over 300 bbls/A in the past and the 1980 crop should be in that range.

The last stop of the day was at the Leisure-Koller cranberry marsh and the Manitowish Cranberry Marsh in Manitowish Waters in Vilas County. These two marshes, operated by Frank Koller and Fred Bartling respectively, are representative of the seven properties started in this large marsh area in the 1940's.

The original plantings were all on deep peat but some new beds are now being constructed on sand areas at the perimeter of the marsh. The marshes have been productive and well maintained over the 30 plus years of their history. Extensive use of herbicides has nearly eradicated wiregrass and made it possible to resist invasion

(continued on the next page)



All about growing and harvesting cranberries. Teacher's manual, cassette, activity books, posters, crafts, songs, recipes, dot-to-dot, games and coloring pages.

Pre-schooler-3rd grade

Please send —

\_\_\_ copies of "teaching kit", \$7.50 each

\_\_\_ copies of "cassette", \$7.95 each

\_\_\_ copies of "activity book", \$3.00 each

Please add \$1.00 for postage.

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

\_\_\_\_\_ ZIP \_\_\_\_\_

**CRANBERRIES MAGAZINE**  
**P.O. BOX 249, COBALT, CT 06414**



## CRANBERRY EXPERTS . . .

(continued from preceding page)

by other weed species.

The water source in this area is Little Trout Lake, from which the water is lifted onto the beds and allowed to drain back into Little Trout or other lakes in the immediate vicinity.

The Leasure-Koller marsh has the mobile "bridge" for spanning the beds. Suspended from the "bridge" may be herbicide spreaders, fertilizer spreaders, weed clippers and platforms from which personnel may wipe individual weeds.

**ON THE LAST MORNING** the group reconvened at the hotel for a second discussion, mostly about recognition and control of diseases and fruit color enhancement.

Then the group went to the DuBay Cranberry Co., where it was welcomed by Harold Mezera. The cultivar plots established under the direction of Don Boone and maintained by Mezera and his able crew were examined. We also saw 112 acres of weed free cranberries with a representative crop beginning to ripen. This marsh also has a "bridge" for carrying on marsh culture without

the need of stepping on or driving in or on the vines.

Attending the workshop were Chuck Brodel, Chet Cross, Dee Demoranville, Karl Deubert, Bob Devlin, Stan Norton and Bert Zuckerman from the Cranberry Station in Massachusetts; Ivan Hall, Kentville, Nova Scotia, and Bob Murray, Nova Scotia; Art Poole, Coquille, Ore.; John Ropes and John Wilson, Ocean Spray, Plymouth, Mass.; Azmi Shawa, Long Beach, Wash.; Eric Stone, Chatsworth, N.J., and Allen Stretch, New Brunswick, N.J.; William Welker, Kearneysville, W. Va.; M. N. Dana, D. M. Boone, Dan Mahr and E. J. Stang, Madison, Wisc.; Robert Skirvin and Al Otterbacker, Urbana, Ill. Attending part of the sessions were Leo Sorenson and Tod Planer, Wisconsin Rapids.

The New Jersey representatives agreed to host a similar workshop session in the future—probably 1982.

Let me be no assistant for a state,  
But keep a farm, and carters.

—Shakespeare in Hamlet

Statement of Ownership, Management and Circulation, Required by 39 U.S.C. 3685. 1. Title of publication: Cranberries. 2. Date of filing: Oct. 16, 1980. 3. Frequency of issue: monthly. 3A. No. of issues published annually: 12. 3B. Annual subscription price: \$8. 4. Location of known office of publication: Wellwyn Drive, Portland, Middlesex CT 06480. 5. Location of the headquarters or general business offices of the publishers: same. 6. Names and complete addresses of publisher, editor and managing editor: publisher, Robert Taylor, Wellwyn Drive, Portland CT 06480; editor, the same; managing editor, the same. 7. Owner: Robert Taylor, Wellwyn Drive, Portland CT 06480. 8. Known bondholders, mortgagees and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages or other securities: none. 9. Not applicable. 10. The average number of copies of each issue during the preceding 12 months and the actual number of copies of single issue published nearest to filing date, respectively: total number of copies printed (net press run), 600 and 600; paid circulation through dealers and carriers, street vendors and counter sales, 0 and 0; mail subscriptions, 461 and 470; total paid circulation, 461 and 470; free distribution (including samples) by mail, carrier or other means, 0 and 0; total distribution, 461 and 470; office use, left over, unaccounted, spoiled after printing, 139 and 130; returns from news agents, 0 and 0; total, 600 and 600. I certify that the statements made by me above are correct and complete. (Signed) Robert Taylor, Publisher/Editor.

A MOST COMPLETE INVENTORY OF  
IRRIGATION ACCESSORIES



# LARCHMONT

ENGINEERING & IRRIGATION, INC.

P.O. Box 66, 11 Larchmont Lane, Lexington, MA 02173 (617) 862-2550

IRRIGATION EQUIPMENT DESIGNED ESPECIALLY  
FOR THE CRANBERRY INDUSTRY

FOR EXAMPLE:

*Gorman-Rupp Self Priming Electric Sprinkler Pumps*  
*Proven Quick Couple Riser*  
*Ingersoll-Rand Water Harvest Pumps*  
*Aluminum Insert Coupling For 4" Poly Pipe*

Contact:

Larchmont Engineering  
Phil Tropeano, President  
(617) 862-2550 (Call Collect)



Contact:

Bill Stearns, Plymouth, Mass.  
(617) 746-6048  
(617) 746-2610



# weather watch

## MASSACHUSETTS

October was very cool, averaging 2.7 degrees a day below normal. Maximum temperature was 71 degrees on the 2nd and the minimum was 28 degrees on the 31st. The only warmer than average days were on the 2nd, 11th and 17th. Cooler than average periods were the 6th, 10th, 13-15th, 22-24th and 26-31st.

Rainfall totaled 4.75 inches or about 1 1/3 inches above normal. This was the first above normal month since March. There was measurable precipitation on eight days with 1.61 inches on the 25th as the greatest single storm. We are about 11 inches below normal for the year to date and nearly 21½ inches behind 1979 for the period.

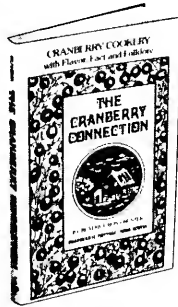
I.E.D.

(continued on page 15)

## The scoop of the year!

*Cranberry Flavor, Fact and Folklore in*

**THE CRANBERRY CONNECTION**, by Beatrice Buszek. Your favorite berry pops up in kitchen-tested recipes for every delight from Cranberry Bog to Cranberry-Banana Bread, Cranberry Avocado Dip, and countless other desserts, drinks, salads, entrees. "A fascinating revelation of the many uses for cranberries . . . you'll find this book a treasure."—*Des Moines Register*. Paperback, \$7.95.



Please send \_\_\_\_\_ copies of **THE CRANBERRY CONNECTION**, \$7.95 each.

Name \_\_\_\_\_

Address \_\_\_\_\_

Zip \_\_\_\_\_

Add \$1.00 for postage; Conn. residents add 7% sales tax.

**CRANBERRIES MAGAZINE**  
P. O. Box 249, Cobalt, CT 06414



**Bog construction**

**Vine setting**

**Flumes and flume work**

**Bog sand**

**Nemasket Construction Co., Inc.**

**275 Wareham St., Middleboro MA 02346**

**(617) 947-1723**

# Drought severe in N. J.

By PHILIP E. MARUCCI  
Cranberry & Blueberry Specialist  
Chatsworth, N.J.

It was a hot, dry summer in the cranberry region of New Jersey.

The average summer temperature (June, July and August) of 73.4 degrees F, and only 0.5 degrees F above normal, is misleading. It took blistering heat in July and August to overbalance the abnormally cool June, which averaged only 68.1 degrees F, or 2.4 degrees below normal.

JULY, averaging 76 degrees F, 1.2 degrees above normal, and the slightly hotter August average of 76.1 degrees F, 2.7 above normal, combined to give the warmest July-August combination since 1955 and the fourth warmest on record at Pemberton. There were no 90 degree days in June but the 14 days in this

category in July and the 18 in August gave a summer total of 32, which is 9 above average and second to the record of 42, which occurred in 1944. The consecutive string of 11 days of 90 degree weather from Aug. 1 to 11 was the most on record for any August but was short of the record of 13 days straight in June 1957 and June 1943.

The maximum temperatures for the summer occurred on July 20 and 21 when the thermometer read 99 and 100 degrees F. It must be noted that these were weather shelter readings. In the open sunlight on the cranberry bogs, the temperature frequently soared to well above 100 degrees.

ON THE SUBJECT of rainfall, there has been much concern expressed over the critical water shortage developing throughout the Northeast. The precipitation record at Pemberton does indicate an acute deficiency, but there have been more severe droughts at this station.

It was the driest summer since

1966, when a total of only 6.96 inches of rain fell in June, July and August. The total for the summer months this year was 8.63. However, the 1966 drought was relieved by 10 inches of rain in September, while the 1980 drought was extended through September, during which only 2.37 inches, 1.39 inches below normal precipitation, occurred.

The accumulated total rainfall through September this year was only 29.91 inches or 3.99 inches below normal. However, much of the deficiency took place in the growing months. From May through September, a total of only 13.05 inches had occurred, or 7.48 inches below normal.

The severity of the drought is not fully revealed in the dry statistics. Actually, almost all of the rains have come in hard showers, much of which does not soak into the earth but is lost in quick runoff. The infrequency of the rains also have crop damaging potentials which are not reflected in monthly totals.

The monthly total of 2.37 for September, for example, does not indicate the actual severity of the dry period from Aug. 13 to Sept. 15 when only 0.32 inches of rain fell. This month-long period was actually almost as dry as the calendar month record of 0.14 inches in June 1949.

THE IMPACT of the hot, dry weather has been unfavorable for cranberries but has not caused severe



## A Solid Investment

requires solid financing . . . and that's our specialty. Credit for equipment, land, buildings . . . all your financial needs. For Credit . . . Plus a full range of other finance-related services, see your local Farm Credit representative.

P.O. Box 7 Taunton, Mass. 02780 Tel: (617) 824-7578  
Office: Located on Rt. 44, 1/4 Mile West of Rt. 24

## CRANBERRY GROWERS REALTY

Listings of buyers and sellers welcomed on cranberry acreage and upland.

Appraisals

DOUGLAS R. BEATON  
E. Sandwich, Mass.  
02537

(617) 888-1288

damage.

The effects of the drought have been greatly mitigated by the weather which preceded it. The year 1979 was the most rainy on record with a total of 61.75 inches, about 17 inches above normal. Excessive rains also occurred in March and April of this year and, as a result, cranberry reservoirs were overflowing as the growing season started.

A few growers reported more than normal sun scalding of berries, but the most general adverse effects of the weather are small size berries, poor color and especially the lack of water for harvesting. Despite the natural attritions, some enormous crops already had been harvested in early October by growers with overhead irrigation facilities.

### REGIONAL NEWS . . .

(continued from page 4)

Other states showed New Jersey at 245,000 and Oregon at 96,000, the same as before. Washington was at 129,000, up slightly, and Wisconsin at a record 1,008,000 barrels, up nearly 10 percent.

# DIRECTORY for Cranberry Growers

## The CHARLES W. HARRIS Company

451 Old Somersel Avenue  
North Dighton, Mass.  
Phone 824-5607

### AMES

Irrigation Systems

RAIN BIRD

Sprinklers

HALE

Pumps

Highest Quality Products

with Satisfaction Guaranteed

The national crop is now a record 2,556,000 barrels, up 3 percent from 1979.

\*\*\*\*

Dr. Karl Deubert visited the New Jersey cranberry area from Oct. 19 to 23. He discussed soil fertility with the cranberry scientists and growers and familiarized himself with the bogs and the various cultural practices.

Dr. Robert Devlin participated in a weed control round table sponsored by Agway Inc. in Syracuse, N.Y., from Oct. 27-30.

## Washington

By AZMI Y. SHAWA

Cranberry harvest in the Long Beach area was slow due to a lack of

water for flooding.

The beginning of November did not bring a cleaning plant closure, for three growers still were harvesting.

Many berries showed signs of softening and the size was small.

The Grayland area experienced a drop in production from the average, while the Long Beach area showed a small increase from last year.

## CAPE COD GROWERS STAND PAT ON VALUES

The Cape Cod Cranberry Growers' Assn. board of directors voted recently to hold firmly to its position that local assessors should hew to the values for agricultural land established by the Massachusetts Farmland Advisory Committee.

**STOCKS & BONDS**  
have been our business for over 45 years.  
We are easy to reach.  
Call us for what YOU need to know.

**Gage-Wiley & Co., Inc.**  
40 Court Street, Plymouth, Mass. 02361  
**617-746-3322 Call Toll Free in Mass 1-800-242-0263**

## Niemi Electric Co.

ROBERT NIEMI

ELECTRICAL CONTRACTORS

HEAT, LIGHT and POWER WIRING

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL

TEL. 295-1880

Robert Niemi

Pinchurst Dr.

Wareham, Mass.





LEFT PHOTO: Cheryl Stoflet, Patty Dorshorst and teacher Joyce Albers admire the cranberry buffet prepared by the Foods II classes at Lincoln High School, Wisconsin Rapids. RIGHT PHOTO: Joanne Simmons, Jackie Leece, Della Jones and Penny Windsor dig into the buffet.

(CRANBERRIES photos by Joan E. Humphrey)

## Cranberries star at buffet

By JOAN E. HUMPHREY

Could you prepare a buffet menu which includes cranberries in every course?

The Foods II classes supervised by teacher Joyce Albers at Lincoln High School in Wisconsin Rapids, Wisc., did just that with berries donated by Ocean Spray.

Albers, who said the object of the meal is to acquaint students with products grown in the area, said she plans to make the buffet an annual event. This is the third year she and her students have prepared their buffet and each has featured a different menu.

"CRANBERRIES ARE so versatile but many young people think they don't like cranberries," Albers said. "Quite often it is only because

they haven't tried them except as sauce. But when they try them in different foods, such as muffins, breads or other dishes, some change their minds. Of course, they don't all become spontaneous cranberry lovers. Cranberries are a food for which you have to acquire a taste.

"When preparing the menu, we strive for variety in taste, textures and ease of preparation. The students are responsible for choosing the menu, preparation of the food, setting up the buffet, evaluating the food and figuring the cost per serving."

On the menu for the first hour class was such mouth-watering food as baked chicken with curried cranberry glaze, cranberry-orange relish, cranberry-pecan bread, cranberry salad, cranberry punch and, for dessert, a light and fluffy concoction called cranberry whip.

The menu for the sixth hour class included such delicacies as cranberry-apricot glazed ham, cranberry fruit soup, sweet cranberry-orange muffins layered cranberry-celery-orange salad, cranberry-pineapple relish, cranberry-apple punch and a dessert of cranberry cake topped with hot butter sauce.

Students, teachers and administrators join in the festive buffet. The participants had different favorites but each came away with a little more appreciation for the little red berry that contributes to Wisconsin's economy.

WISCONSIN RAPIDS, in Wood County, is in the heart of the state's cranberry country. According to Leo Sorenson, president of the Wisconsin Cranberry Growers Assn., the county should produce 310,000 barrels of berries this year, about 10,000 more barrels than in 1979.

## WEATHER WATCH . . .

(continued from page 11)

### NOVA SCOTIA

The cranberry harvest was completed without any serious problems.

The mean minimum temperature for September was slightly below the 50-year average. I expect when the official record is in for October, the same story will hold for that month also.

As of Oct. 27, we had not had any snow but the past week had been cold and windy.

I.V.H.

### WASHINGTON

Indian summer arrived for September and October with a maximum temperature of 85 degrees on the 3rd and a minimum of 29 degrees on the 22nd.

Precipitation totaled 4.17 inches, with the greatest rainfall of 1.28 inches on the 13th. The annual total to date is 48.93 inches, approximately 10 inches below average.

A.Y.S.



After you've used up turkey in your favorite casserole, you've still got the turkey carcass. Throw it in the soup pot, add a medley of vegetables, and soon you'll be able to enjoy a hearty soup. To go with it, try our sandwich idea made with leftover cranberry sauce or relish. Cranberry Jelly Sandwich alone is good as a snack or brunch dish.

### CRANBERRY JELLY SANDWICHES

(Makes 6 sandwiches)

6 slices white bread, toasted  
½ cup cranberry orange relish

¼ cup firmly packed light brown sugar  
½ cup dry bread crumbs  
¼ cup melted butter or margarine  
½ teaspoon cinnamon  
6 slices jellied cranberry sauce

Toast white bread; set aside. Combine relish, sugar, bread crumbs, butter and cinnamon; mix well. Spread over toast. Top with a slice of jellied cranberry sauce. Place under broiler, just heat until jelly melts and relish mixture is warm. Serve hot.

### TURKEY SOUP

(Makes about 14 cups)

1 turkey carcass  
1 cup or more turkey meat, cut into ½-inch cubes  
4 quarts water  
2 onions, quartered  
2 bay leaves  
1 teaspoon salt  
½ teaspoon pepper  
4 sprigs fresh parsley  
½ teaspoons dried thyme, crumbled  
2 cloves garlic, crushed  
6 whole carrots, peeled and cut into 1-inch pieces  
1 bunch celery, cut into 1-inch pieces  
3 whole potatoes, peeled and cubed  
OR  
1 cup raw, uncooked long grain rice

Place carcass and water in large soup kettle. Add onions, bay leaves, salt, pepper, parsley, thyme and garlic. Bring to a boil over high heat; reduce heat and simmer for at least 1 hour, or until carcass is cleaned of any meat pieces; remove carcass. Add vegetables; cook over medium heat, adding more water if necessary for 35-45 minutes, or until vegetables are tender. Add turkey meat; heat thoroughly.

Note: For more seasoning, add teaspoon poultry seasoning.

### Read CRANBERRIES

## CORRUGATED CULVERT PIPE

and

## FLOW GATES

Aluminum - Galvanized  
Asphalt Coated

## Felker Bros. Corp.

MARSHFIELD WISCONSIN  
Area 715 384-3121

Office  
295-2222

K. Beaton  
295-2207

## BEATON'S CRANBERRY GROWERS SERVICE

WAREHAM, MASS.

D. Beaton  
888-1288

P. Beaton  
947-3601

Specializing in

- DITCHING
- NETTING
- SANDING
- WEED CLIPPING
- COMPLETE BOG MANAGEMENT
- HARVESTING (Wet and Dry)

Also

Complete line of portable Crisafulli Pumps 2" - 16"  
Plastic netting for suction boxes

# 1930 - 1980 50 YEARS OF SUCCESSFUL COMMITMENT

- To handling members' crops — all year, every year
- To developing and expanding the market for members' crops — nationally and internationally
- To generating consumer acceptance of the Ocean Spray trademark as the standard of excellence for the industry
- To increasing grower returns at a rate consistent with long-term stability and growth

Ocean Spray: the handler of choice now  
— and for the years ahead



Ocean Spray Cranberries, Inc., Plymouth, MA 02360





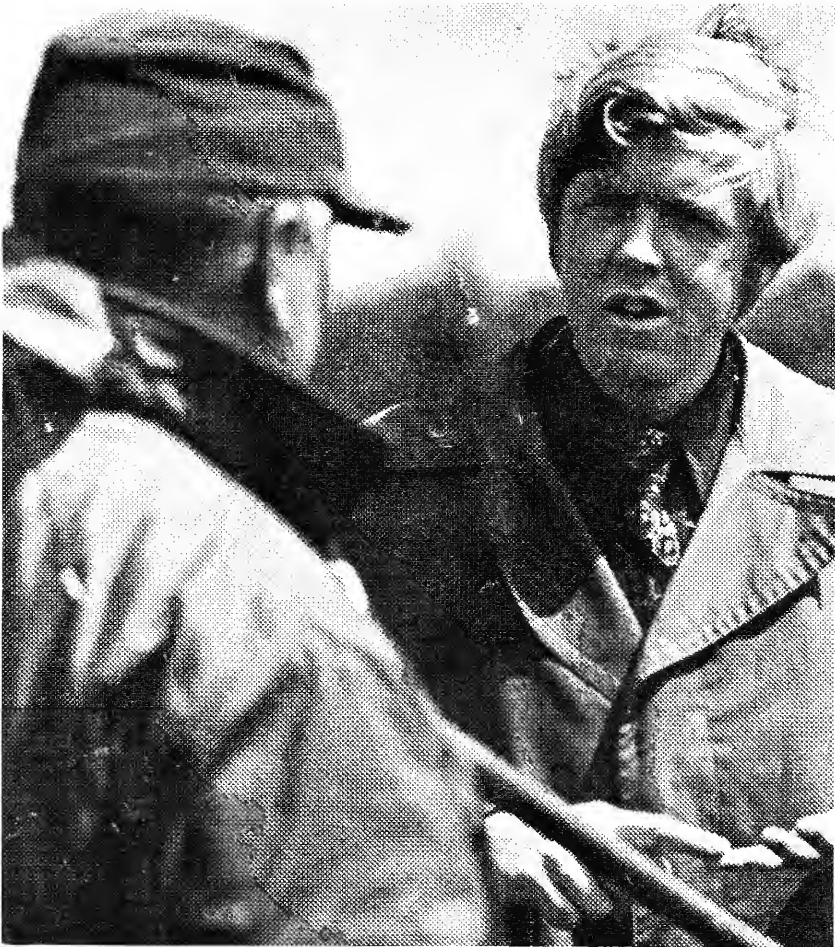
# CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

Vol. 45, No. 1

January 1981

56  
323  
C7  
PER

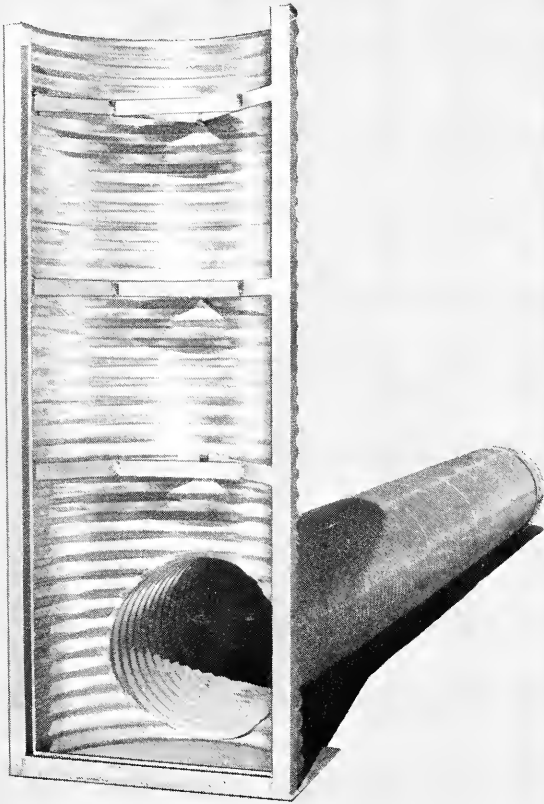


**Grower total down . . . 3**

★★★★★

**From field to bog . . . 7**

Library UMass  
Serials Section  
Amherst MA 01002

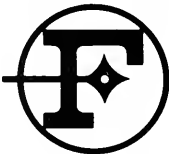


# Install the flow gates now that generations will rely on.

Felker flow gates are built to last, thanks to famous Felker welded construction, generously braced designs, and highest quality materials. Manufactured in aluminum only.

Standard sized for conduits from 15- to 48-inch diameters with riser widths from 24- to 72-inches, height as required. Single, double and triple log channel designs, other sizes available upon application. For virtually any size or water control application, Felker Brothers are flow gate specialists. **Send for free bulletin.**

**OUR  
STRENGTH  
IS METAL**



**FELKER BROTHERS CORPORATION**

Marshfield, Wisconsin 54449

PHONE 715-384-3121 TWX 510-370-1846 TELEX 29-3451

## Fewer growers but industry thrives



**JOHN ROPES**

Cranberry growing—like the rest of agriculture—has dwindled in terms of the number of operators in recent years.

But that hasn't meant a decline in output, dollar volume, acreage or general health of the industry.

John Ropes, head of grower relations for Ocean Spray, has fewer potential growers to talk to these days, for example.

But he believes the industry is more dynamic than ever.

"The loss has been mostly among the small growers," Ropes told CRANBERRIES.

"It wasn't economic to own 2 to 5 acres 10 years ago and it isn't economic today."

Ropes puts the total number of growers who belong to Ocean Spray today at 708. In 1973, he said, the number was 819.

According to Ronald L. Cioffi, referendum agent for the Fruit and and Vegetable Division of the USDA's Agricultural Marketing Service, the division uses a figure of 900, including both Ocean Spray growers and independents.

Ropes said he believes the actual figure is closer to 950. Charles F. Hastings Jr., manager for the Cranberry Marketing Committee, concurs.

To illustrate the decline in small growers, Ropes explained that Ocean Spray members who

produced 500 barrels or less annually numbered 350 in 1973. In 1979 the number in that category was down to 261.

Of the cooperative's growers in the 500 to 2,500 barrel category, there were 317 growers in 1973. By 1979 the number had declined to 250, Ropes said.

While there has been a decline in the number of growers, the amount of acreage in cultivation has remained pretty steady, according to the Ocean Spray executive.

(continued on page 8)

### COVER PHOTO

**JOHN ROPES**, director of grower relations for Ocean Spray, gets out into the field to talk to growers about their concerns.

## **BARK RIVER** *Culvert and Equipment Co.*

*(Wisconsin-Michigan Growers)*

**ALUMINUM HEADGATES FABRICATED TO YOUR SPECIFICATIONS**

**HAND WHEEL OPERATED GATES**

**ALUMINUM CORRUGATED PIPE**

**INTERNATIONAL POWER UNITS**

**INTERNATIONAL CRAWLER TRACTORS**

**WARNER & SWASEY EXCAVATORS**

**WALDON LOADERS AND USED EQUIPMENT**

Eau Claire, Wis.  
715-835-5157

Escanaba, Mich.  
906-786-6920

Milwaukee, Wis.  
414-461-5440

Madison, Wis.  
608-222-4151

Green Bay, Wis.  
414-435-6676

Ironwood, Mich.  
906-932-0222



**INTERNATIONAL CONSTRUCTION EQUIPMENT**

INTERNATIONAL HARVESTER COMPANY

## **Mike's Portable Welding**

**Cranberry Equipment**

**Built and Repaired**

*Clippers, Flumes*

*and Wheel-offs,*

*all types of equipment*

**FREE ESTIMATE**

(617) 748-0014

(617) 748-1415

(617) 748-0031

# Record crop forecast

A record smasher!

That's the final forecast of the 1980 crop by the Crop Reporting Board of the New England Crop and Livestock Reporting Service, USDA, based in Concord, N.H.

It calls for a total of 2.72 barrels, 10 percent more than the 1979 crop and 6 percent above prospects on Oct. 1.

The 1979 crop also was a record breaker but only 1 percent above the previous year's production.

Prospects improved in Massachusetts and Wisconsin between Oct. 1 and Nov. 1—date of the final forecast—but declined in Oregon.

Harvest was delayed in Massachusetts to obtain good color but was 80 percent complete by Nov. 1.

Harvest was complete in Wisconsin and mostly completed in New Jersey. Washington growers were said to be expected to wind up harvest about Nov. 10. On Nov. 1, harvest was only half completed in Oregon as growers held off to allow more coloring.

Irving E. Demoranville of the Massachusetts Cranberry Experiment Station said the Bay State total may grow a little.

Comparing the Nov. 1 report and earlier predictions, Demoranville said New Jersey was unchanged, Oregon was down 6,000 barrels, Washington was unchanged and Wisconsin was 150,000 barrels up from the first estimate in August.

If the forecast holds, total production for the past three years would be: 1980, 2,722,000 bbls.; 1979, 2,475,500 bbls.; 1978, 2,458,500 bbls.

For Massachusetts, the totals

would be: 1980, 1,180,000 bbls.; 1979, 1,080,000 bbls.; 1978, 1,180,000 bbls. There would be a tie between 1980's and 1979's

output for the record.

Wisconsin: 1980, 1,080,000 bbls.; 1979, 901,000 bbls.; 1978, 822,000 bbls.

New Jersey: 1980, 245,000 bbls.; 1979, 253,000 bbls.; 1978, 223,000 bbls.

Washington: 1980, 127,000 bbls.; 1979, 147,000 bbls.; 1978, 139,000 bbls.

Oregon: 1980, 90,000 bbls.; 1979, 94,500 bbls.; 1978, 94,500 bbls.

## regional news notes

### Massachusetts

By IRVING DEMORANVILLE

The official USDA crop report for Nov. 1 indicates a Massachusetts crop of 1,180,000 barrels, which is a flat-footed tie with 1978 for the record. This total may grow a little because there was more of the crop unharvested as of Nov. 1 than usual.

Wisconsin, with 1,080,000 barrels, up over 70,000 from October and an increase of about

(continued on page 10)

## FOR SALE

Wareham, Mass.

Several Bailey Separators  
and Parts, Picking

Machines, Miscellaneous  
Cranberry Equipment

Call Bob at 295-4279

Office  
295-2222

## BEATON'S CRANBERRY GROWERS SERVICE

K. Beaton  
295-2207

D. Beaton  
888-1288

WAREHAM, MASS.

F. Beaton  
947-3601

Specializing in

- DITCHING
- NETTING
- SANDING
- WEED CLIPPING
- COMPLETE BOG MANAGEMENT
- HARVESTING (Wet and Dry)

Also

Complete line of portable Crisafulli Pumps 2" - 16"  
Plastic netting for suction boxes

# editorial



## Inflation crushes small farmers most

The story on Page 3 about the dwindling number of growers and the trend toward larger holdings is one we all are familiar with.

The situation is not unique to cranberrying. It is similar to what is happening in all aspects of agriculture.

The reasons for the pattern are many and they are intricate. One reason, however, affects deeply the very economic fabric of our society. That reason is INFLATION.

The U.S. Department of Agriculture, in a report it issued titled *Another Revolution in U.S. Farming?*, put inflation as the number one force affecting the way U.S. farms are organized.

Here's what the USDA says:

"Inflation increases: (1) the wealth of those who own land, (2) demand for land, and (3) input prices. And it strengthens the relative economic position of the wealthier and higher income people in buying land. Through these effects, inflation—compared with stable prices—leads to fewer farms and greater concentration of production, incomes, and wealth associated with the larger farms."

If you are one of those people who are angry about the growing concentration of wealth and holdings in this country as well as the

(continued on page 12)



### LEAGUE OF WOMEN VOTERS Publications

Energy, Jobs and the Environment Package	\$3.95
Preserving America's Farmland	.30
Coastal Zone Management Program	.35
Flood Plain Management	.25
Where Rivers Meet the Sea	free

Order from The League of Women Voters of the U.S., 1730 M Street, N.W., Washington, D.C. 20036. Add 50 cents for postage and handling.

## EXPORTERS PROTECTED UNDER NEW PROGRAM

The U.S. Department of Agriculture has put into effect a new program that covers defaults in the purchase of agricultural commodities by foreign buyers, whether the foreign buyer's bank is government owned or privately owned.

A prior program covered only government owned banks.

## CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

—Our 44th Year of Publication—

VOLUME 45—NO. 1

January 1981

Send correspondence to:

P.O. Box 249  
Cobalt CT 06414

Phone: (203) 342-4730

Bob Taylor, Publisher/Editor

### ADVISORS, CORRESPONDENTS

**Massachusetts**—Dr. Chester E. Cross, Director, Massachusetts Cranberry Experiment Station; Irving Demoranville, Extension Cranberry Specialist, Massachusetts Cranberry Station; Michael Couture, East Wareham, Mass.

**New Jersey**—Philip E. Marucci, Cranberry and Blueberry Specialist, Cranberry and Blueberry Laboratory, Chatsworth, N.J.; Mary E. Archibald, Collingswood, N.J.

**Nova Scotia**—I. V. Hall, botanist, Research Station, Kentville, N.S.

**Oregon**—Arthur Poole, Coos County Extension Agent, Coquille, Ore.

**Washington**—Azmi Y. Shawa, Horticulturist and Extension Agent in Horticulture, Coastal Wash. Res. and Ext. Unit, Long Beach, Wash.

**Wisconsin**—Tod D. Planer, Farm Management Agent, Wood County; Joan E. Humphrey, Friendship.

CRANBERRIES is published monthly by the Taylor Publishing Co., Wellwyn Drive, Portland CT 06480. Second class postage is paid at the Portland, Conn., Post Office. Price is \$8 a year, \$15 for two years, 80 cents a copy in the U.S.; \$9 a year in Canada; \$10 a year in all other countries. Copyright 1980 by Taylor Publishing.

ISSN: 0011-0787

# Vernon Goldsworthy dies



VERNON GOLDSWORTHY (1905-1980)

(CRANBERRIES Photo by Joan E. Humphrey)

Vernon Goldsworthy, 75, co-founder of Cranberry Products Inc. of Eagle River, Wisc., and a longtime consultant and correspondent for CRANBERRIES, died in his Eagle River home Nov. 16 after a lengthy illness.

Born in Chicago Feb. 9, 1905, son of George and Emma Goldsworthy, he attended grade school and high school in Mineral Point, Wisc.

He studied at the University of Wisconsin, where he received an MS degree in entomology in 1931.

"Goldy," as his friends and family called him, was outstanding at track and was captain of the cross country team and ran the half mile for the university.

Following graduation, he became an entomologist for the State of Wisconsin. Later, he assumed the post of general manager of the Eatmor Cranberry Assn.

In 1944, he opened the cranberry industry in Northern Wisconsin by establishing the Thunder Lake Marsh in Three Lakes, Wisc.

From 1949-51, he was general manager for the Fruit Growers Cherry Cooperative in Sturgeon Bay, Wisc.

In 1954, he co-founded Cranberry Products Inc. with Ralph Sampson. He served as president of the company until May 1977 when he retired because of ill health.

His son, Charles, now is president of Cranberry Products, which processes and packs for other companies but also puts out a line of sauces and juices under the Eagle River label.

(continued on page 14)

## Niemi Electric Co.

ROBERT NIEMI

ELECTRICAL CONTRACTORS

HEAT, LIGHT and POWER WIRING

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL



TEL. 295-1880

Robert Niemi Pinchurst Dr.

Wareham, Mass.



# Old blueberry field now bears cranberries



**EARL KERCHNER** look over the lush cranberry bog that formerly was a blueberry field.

When Earl Kerchner looks over the old blueberry field that is part of the 600-acre Chatsworth, N.J., Cranberry Assn. holdings, he now sees a healthy Stevens bog rustling ever so slightly in the breeze.

It wasn't the first time Kerchner, farm supervisor for Chatsworth, had decided to clear out an old blueberry production area for conversion to the red berry.

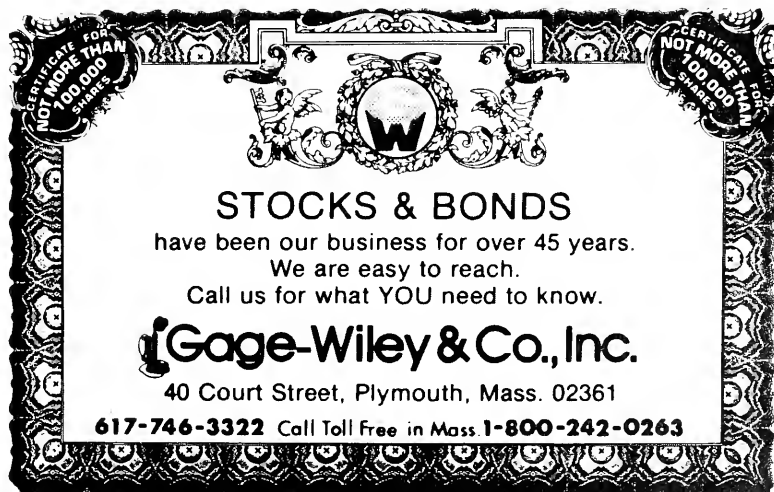
As usual, he found the old field heavily infested with weed seeds, making it difficult to get cranberry vines established.

After some experimentation, he found that if he applied Evital immediately after setting the vines, "we could get the seeds

at germination."

Now in its fourth season, the bog yielded more than 150 barrels per acre in the last harvest.

Kerchner is no newcomer to cranberry growing. He has been an employee of A.R. DeMarco Enterprises, owners of Chatsworth, for 28 years.



**STOCKS & BONDS**  
have been our business for over 45 years.  
We are easy to reach.  
Call us for what YOU need to know.

**Gage-Wiley & Co., Inc.**  
40 Court Street, Plymouth, Mass. 02361  
**617-746-3322** Call Toll Free in Mass **1-800-242-0263**



## FEWER GROWERS . . .

(continued from page 3)

Hastings said acreage is currently on the increase.

For the future, he sees more consolidation coming.

According to Ropes, Ocean Spray growers in the 1950's numbered around 1,200. Two decades later, the amount of growers had fallen below 900.

Cioffi said the total number of growers—both Ocean Spray and independents—was about 1,300 ten years ago.

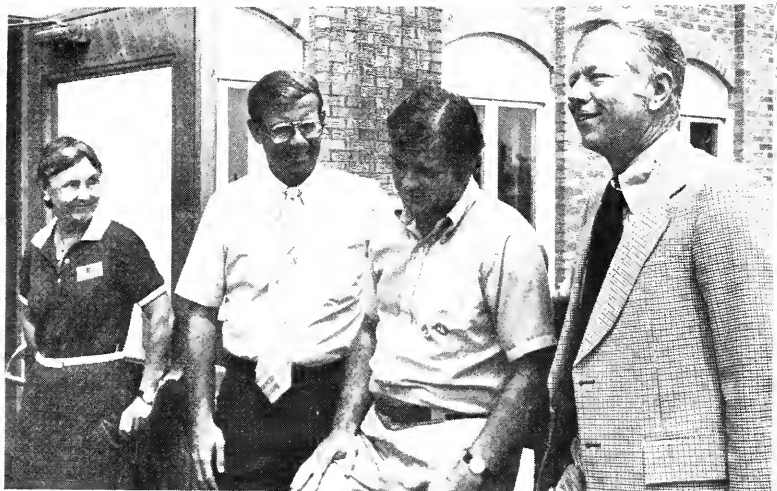
"The decline has been gradual and steady," he stated.

Hastings said he believes the percentage of independent growers vis-a-vis Ocean Spray growers has been growing smaller through the years.

**ROPES STRESSED** that the decline in numbers has not meant a decline in the industry.

"This is an exciting, dynamic industry, with growers putting money into their bogs and making progress financially," he said.

"You see new growers and



**MASSACHUSETTS DEPARTMENT** of Commerce and Development Commissioner James F. Carlin, 2nd from right, recently visited Cranberry World as part of his tour of the Bay State's tourist attractions. Ocean Spray's Cranberry World recently had its ten millionth visitor in its less than three years of operation. Others, l. to r., are: Anita Franks, manager of Cranberry World; Patrick McCarthy, Ocean Spray senior vice president, and Harold Thorkilsen, Ocean Spray president.

(Fay Foto Service)

family members going into the business. Five years ago you didn't see this. Three years ago you did but now there is more of it."

He said every year two or

three growers simply abandon their acreage but one also sees new acreage going into cultivation these days.

Five years with Ocean Spray—he came from Agway and Ciba-Geigy—Ropes still gets a big kick out of dealing personally with growers in all of the growing regions in the U.S. and Canada, discussing with them marketing, pesticides and other matters.

"It's a very enjoyable job,"

Ropes said. "I get to talk to growers, hear about their concerns. And I have the opportunity to influence a resolution of those concerns."

### STAY INFORMED

subscribe to CRANBERRIES!

\$8 a year; \$15 two years

Send check or money order to

CRANBERRIES

P.O. Box 249

COBALT CT 06414

## Baldwin Excavators



Mert Howes

295-5542

Fred Locke

866-2639

COUNTY ROAD

W. WAREHAM, MASS.

02576

Specializing in

Agricultural Construction

Flumes

Canals

Land clearing

Sanding

Water holes

Ditching

Dikes

Grading

# weather watch

## MASSACHUSETTS

November was cold, averaging 3.5 degrees a day below normal. It was the coldest since 1976 and ninth coldest in our records. Maximum temperature was 62 degrees on the 14th and minimum 19 degrees on the 20th. The only warmer than average days were the 4th, 8th and 14th. Cooler than average periods were the 2nd-3rd, 6th, 11th,

15th-20th, 22nd-23rd, 26th-30th.

Rainfall totaled 4.20 inches or 0.4 inch below normal. There was measurable precipitation on 10 days with 1.17 inches on the 18th as the greatest storm.

We are now about 11½ inches below normal for the year and 21½ inches behind 1979. There was no snow recorded.

I.E.D.

(continued on the next page)



**EDWARD V. LIPMAN**, left, a trustee of Rutgers University, presents a certificate of award from the American Cranberry Growers Assn. to the N.J. Agricultural Experiment Station of Cook College, Rutgers, to his son, **Edward V. Lipman Jr.**, assistant dean of Cook College. The citation is "in recognition of 100 years of distinguished service to the Cranberry Growers of New Jersey—March 10, 1880-March 10, 1980" and was presented at the recent semi-annual meeting of the ACGA. The elder Lipman's father, **Jacob G.**, served as director of the station from 1911-1939. To the right is **Dr. David J. Burns**, assistant director of the station.

A MOST COMPLETE INVENTORY OF  
IRRIGATION ACCESSORIES



# LARCHMONT

ENGINEERING & IRRIGATION, INC.

P.O. Box 66, 11 Larchmont Lane, Lexington, MA 02173 (617) 862-2550

IRRIGATION EQUIPMENT DESIGNED ESPECIALLY  
FOR THE CRANBERRY INDUSTRY

— FOR EXAMPLE: —

*Gorman-Rupp Self Priming Electric Sprinkler Pumps*  
*Proven Quick Couple Riser*  
*Ingersoll-Rand Water Harvest Pumps*  
*Aluminum Insert Coupling For 4" Poly Pipe*

Contact:

Larchmont Engineering  
Phil Tropeano, President  
(617) 862-2550 (Call Collect)



Contact:

Bill Stearns, Plymouth, Mass.  
(617) 746-6048  
(617) 746-2610



## REGIONAL NOTES . . .

(continued from page 4)

150,000 from the first estimate, has a record by plenty. This is not a complete surprise, as in September the marshes we visited were nearly overflowing with berries.

The national crop is 2,722,000 barrels, up 6 percent and also a record.

## Nova Scotia

By IVAN V. HALL

We in Canada were sorry to learn of Vernon Goldsworthy's death. He was a personal friend of several of the growers and did much to help the cranberry industry in our area.

## Washington

By AZMI Y. SHAWA

Dr. Charles C. Doughty, who served as superintendent of the Coastal Washington Research and Extension Unit for 11 years, will retire Jan. 1 as horticulturist at the Western Washington Research and Extension Center,

Puyallup.

He will have completed nearly 27 years of service to Washington State University, the cranberry and blueberry industries, and to two local communities, Long Beach and Puyallup.

His research work on cranberries, blueberries and other small fruits covered important studies such as weed control, nutrition and cold hardness.

Dr. Doughty and his wife, Reta, will remain in their home in Sumner. We wish them good health, happiness and many productive years to come.

## WEATHER WATCH . . .

(continued from page 9)

## NOVA SCOTIA

The mean temperature for November was 2.9 Celsius, slightly below the 50-year average of 3.4. Our highest snowfall was 15 cm on the 18th but it had nearly disappeared as of Dec. 2.

The official figures for cranberry production in Nova Scotia have not

been released but Bob Murray thinks it will be close to the average 135,000 kg.

I.V.H.

## WISCONSIN

Total rainfall for the 1980 growing season from April 1 to Sept. 30 averaged 26.9 inches in Wisconsin.

This was 7.7 inches more than received for that period in 1979 and it was 5.5 inches above normal. August and September were extreme wet, accounting for 52 percent of the 1980 growing season rainfall. April, May and July were drier than normal but June had above normal rainfall.

Temperatures during the growing season averaged higher than normal in April, May, July and August, while June and September were cooler than usual.

—Wisconsin Agricultural Reporting Service

Here's a farmer that hanged himself on the expectation of plenty.

—Shakespeare in MacBeth



## A Solid Investment

requires solid financing . . . and that's our specialty. Credit for equipment, land, buildings . . . all your financial needs. For Credit . . . Plus a full range of other finance-related services, see your local Farm Credit representative.

P.O. Box 7 Taunton, Mass. 02780 Tel: (617) 824-7578  
Office: Located on Rt. 44, 1/4 Mile West of Rt. 24

## DIRECTORY for Cranberry Growers

### The CHARLES W. HARRIS Company

451 Old Somerset Avenue  
North Dighton, Mass.  
Phone 824-5607

AMES  
Irrigation Systems  
RAIN BIRD  
Sprinklers  
HALE  
Pumps

Highest Quality Products  
with Satisfaction Guaranteed



*Cranberries, fresh or processed, make delectable baked goods—cakes, pies, breads and muffins.*

## CRANBERRY CHARLOTTE

(Makes 16 servings)

- 1 package (3 ounces) peach flavored gelatin
- $\frac{3}{4}$  cup boiling water
- 3 eggs, separated
- 1 can (16 ounces) whole berry cranberry sauce
- $\frac{1}{2}$  cup sugar
- 2 cups heavy cream
- 2 tablespoons sugar
- 1 teaspoon vanilla
- 24 ladyfingers

Fresh cranberries for garnish (optional)

Dissolve gelatin in boiling water. Combine egg yolks and cranberries and stir into gelatin. In a large mixing bowl beat  $\frac{1}{2}$  cup sugar into egg whites, with electric mixer, until soft peaks can be formed. Fold into cranberry mixture. Combine heavy cream, 2 tablespoons sugar and vanilla in large mixing bowl and beat with electric mixer until whipped and thickened. Fold 2 cups of the whipped cream into cranberry mixture. Reserve remaining cream for garnishing. Line the sides of 9-inch springform pan with ladyfingers. Pour prepared mixture into pan. Refrigerate several hours before serving. Garnish with remaining whipped cream and fresh cranberries.

## CRANBERRY ALMOND CREAM PIE

(Makes one 9-inch pie)

- 1 (9-inch) unbaked pastry shell
- 1 (8-ounce) package cream cheese, softened



FOR DELICIOUS desserts, try, left to right, Cranberry Batter Bread, Cranberry Charlotte and Cranberry Almond Cream Pie.

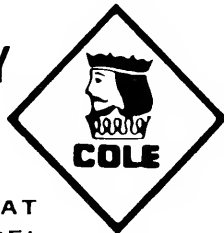
3 cups whole berry cranberry sauce

$\frac{1}{3}$  cup firmly packed light brown sugar

3 tablespoons cornstarch  
 $\frac{1}{3}$  cup flour

(continued on page 15)

## WISCONSIN CRANBERRY HEADQUARTERS FOR



EVITAL • SOLO • DIQUAT  
2-4-D • DOWPON • ETHREL  
SEVIN • PARATHION • GUTHION • DIAZINON  
KOCIDE • DIFOLITAN • FERBAM  
COPPER SULFATE • PRINCEP

## Cole Chemical Supply

DIVISION OF *Hopkins* AGRICULTURAL CHEMICAL CO  
P.O. BOX 7211, MADISON, WISCONSIN 53707  
608-221-1581

(continued from page 5)

diminishing opportunity for the average man or woman who would like to pursue a livelihood in an entrepreneurial framework, you have deep-seated convictions about the need to get rid of that scourge called INFLATION.

## **A missed opportunity**

The name, Vernon Goldsworthy, first appeared on the masthead of CRANBERRIES as a consultant and correspondent from Wisconsin 15 years ago. This writer first became acquainted with the co-founder of Cranberry Products Inc. when he assumed publication of the magazine two years ago.

By then Mr. Goldsworthy was in failing health. But his spirits remained high, he was ever the courtly gentleman, and he always found time to provide news and feature tips on a wide variety of subjects, ranging from a squabble over water rights to a cranberry wine maker to a New Zealand bog for which he provided experimental cuttings to a marsh operated by an Indian tribe. All of our communication was by phone and letter, concluded frequently with a reminder to "drop by" when we came into each other's neighborhood. Unfortunately, that day did not come before Mr. Goldsworthy passed away. I have a sense of a missed opportunity.

Vernon Goldsworthy will be missed at CRANBERRIES as he will be by the many friends he made throughout the cranberry world.

## **ASKS STATE INQUIRY**

A Washington grower has asked the state to investigate his claim that Ilwaco is drawing so much water from Black Lake that growers can't get enough water for harvesting.

The grower, Elmer Roloff, has directed his request to the Department of Ecology. The town claims that it has not exceeded authorized withdraw

### **CRANBERRY GROWERS REALTY**

Listings of buyers and sellers welcomed on cranberry acreage and upland.

Appraisals

**DOUGLAS R. BEATON**

**E. Sandwich, Mass.  
02537**

**(617) 888-1288**



**Bog construction**

**Vine setting**

**Flumes and flume work**

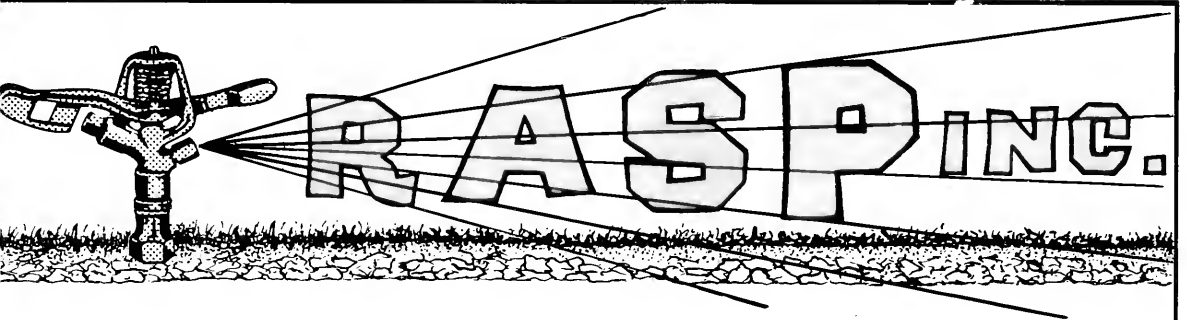
**Bog sand**

**Nemasket Construction Co., Inc.**

**275 Wareham St., Middleboro MA 02346**

**(617) 947-1723**

A mahogany sculpture of three soaring sea gulls, created by Cabot Lyford of Exter, N.H., has been donated to the grower/owners of Ocean Spray by its board of directors. The massive work commemorates Ocean Spray's golden anniversary and is on display at its Plymouth, Mass., headquarters.



**AUTHORIZED AGWAY REPRESENTATIVE**

**LICENSED SPRAYING OF PESTICIDES (Seasonal)**

**WITH A COMPLETE LINE OF:**

**CRANBERRY INSECTICIDES • FUNGICIDES  
HERBICIDES • MITICIDES • and FERTILIZERS  
IN STOCK!**

•

**ROBERT A. ALBERGHINI – SPRAYING  
RFD 5 PLYMOUTH STREET, CARVER, MASS. 02330  
TELEPHONE: 866-4429**

**For further information, call evenings after 5:30**



## GOLDSWORTHY . . .

(continued from page 6)

Cranberry Products also produces gourmet jams and jellies and maple syrup.

Goldsworthy was secretary of the Wisconsin Cranberry Growers Assn. for many years and a member of the Wisconsin Alumni Assn., the Wisconsin Rapids Elks Club, the University of Wisconsin "W" Club and numerous civic groups.

He was described by a close friend, who wrote a poetic tribute to him after his death, as a very private, thoughtful and kindly man.

Having been a track star as well as an ardent hunter and trapper in his youth, he thought it ironic that he should become the victim of a steadily immobilizing Parkinson's Disease in later years.

His wife, Esther, who survives him, described him as an avid collector, of stamps, books, everything. She said he had a passionate dedication to the cranberry, leading the family to remark often "that he had cran-

berry juice in his veins."

Besides his wife and son, Goldsworthy is survived by three daughters, Judy Rosemurgy of Wausau, Sara Liston of Baraboo and Mary Kunkel of Denton, Tex.; a brother, Walter, of Three Lakes, and 12 grandchildren. Another brother, George, had died earlier.

A memorial mass was held in St. Peter's Catholic Church in Eagle River. Interment was in Three Lakes Cemetery. Memorial contributions may be made to the St. Labre Indian School, Ashland, Montana 59004 or the National Parkinson Foundation, 220 S. State St., Chicago IL 60604.

### BY GROWERS

## Brochure on wetlands is published

Believing the old adage that the best defense is a good offense, the Cape Cod Cranberry Growers Assn. has published and is distributing a brochure aimed at showing the world the role of the grower in conserving water supplies.

Titled "Cranberry Growing and Our Wetlands," the brochure is a handsome four page, four color affair with a wraparound cover showing a painting of canoeists fishing from a cranberry bog reservoir, ducks taking off from the marshy shore and growers operating dry pickers opposite the reservoir.

Inside are photos of a bog, a swan swimming in a reservoir and a bee atop a cranberry flower.

CITING THE REASONS for issuance of the brochures, Paul R. Morse of the association said: "As we all know, we are having to share more and more of our available water supplies with our non-cranberry neighbors who are increasing in numbers every day. It is for this reason that the directors of your association decided to launch a campaign to let our neighbors know that the cranberry grower not only conserves water, but also creates reservoirs of water. Without us, water supplies would be even more critical than they are today.

"This brochure will be used as an aggressive offense to tell the world around us of our importance, not as a defensive tool for use only after an attack."

The brochure is being distributed through Cranberry World in Plymouth conservation commissions, school departments, garden clubs and other outlets.

PART OF THE COPY in the brochure reads:

"In addition to helping crops, the reservoirs that cranberry growers maintain also stabilize surface and ground water levels in adjoining wetlands. The bogs assist by absorbing excess water during heavy rainfalls to increase the total underground water supply and to prevent rivers from swelling to flood levels.

"During the winter, water supplies receive a special present from cranberry bogs: cranberry plants, submerged in the flooded bogs, replenish oxygen in the water as it passes from reservoirs into streams and rivers. This helps support a strong fish population much to the delight of area sportsmen."

Morse extended "a big thanks"

(continued on page 15)

### Northern Wisconsin

#### CRANBERRY MARSH

600 acres near Hayward on Totgotic River.

53 acres producing.

Sprinklered & Equipped.

Stevens, Ben Lears, Searles.

*Century 21*

*E.C. Hoover & Assoc.*

*Box 128*

*Eagle River, Wisc. 54521*

*(715) 479-6402 or (715) 547-3368*



## COOK'S CORNER . . .

(continued from page 11)

- 1/3 cup firmly packed light brown sugar
- 2 tablespoons butter or margarine
- 1/2 cup toasted slivered almonds

Blend softened cream cheese with 1/2 cup cup cranberry sauce; spread evenly

over the bottom of pastry shell.

Combine 1/3 cup brown sugar, cornstarch and remaining whole berry cranberry sauce; blend well. Carefully spread over cheese layer. Bake in a 375 degree F oven for 35 minutes.

Combine flour, brown sugar; blend in butter till mixture resembles coarse meal; stir in almonds. Sprinkle over pie. Bake 10-15 minutes more or until center of pie is firm.

## CRANBERRY BATTER BREAD

(Makes 1 9X5-inch loaf)

- 1 package active dry yeast
- 1/4 cup lukewarm water
- 1/2 cup milk
- 1/3 cup vegetable shortening
- 3/4 cup sugar
- 1 teaspoon salt
- 2 eggs, well beaten
- 4 cups all-purpose flour
- 1 1/2 cups fresh cranberries, coarsely ground
- 1/2 cup currants or raisins

Sprinkle yeast over lukewarm water.

Let stand without stirring for 5 minutes, then stir until dissolved. Scald milk; add

shortening, sugar and salt; stir until blended. Cool until lukewarm. Stir in eggs and dissolved yeast. Add flour and blend well. Then beat until dough pulls away from the spoon, about

300 vigorous strokes. Cover and let rise

until double in bulk. Add cranberries and currants; beat until well blended.

Spoon batter into a well-greased 9X5X3-inch loaf pan. Cover and let

rise until double in bulk. Bake in moderate oven (375 degrees F) for 40-45 minutes, or until loaf is well browned. Remove from pan and cool on a rack.

## BROCHURE . . .

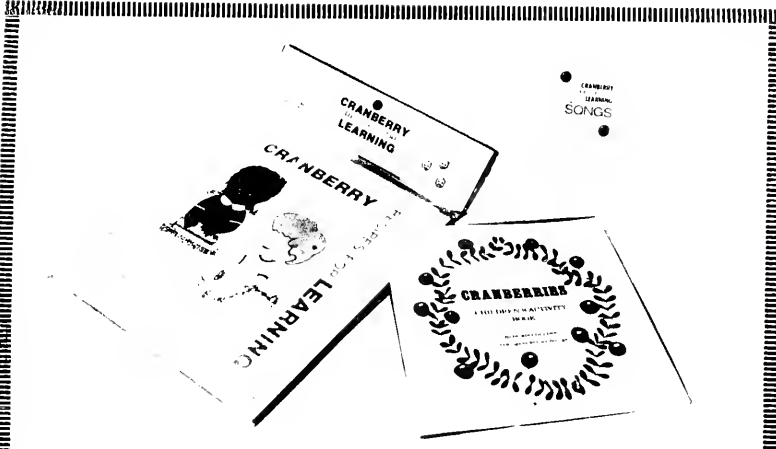
(continued from page 14)

to Ocean Spray personnel, "and in particular Christine Masclee and Bob Rich, those talents and many hours of work made this brochure possible."

## INSPECTION CHANGE PROPOSED BY USDA

The U.S. Department of Agriculture

has proposed that an on-line sampling procedure be added to the official standards used to certify the condition of food containers.



All about growing and harvesting cranberries. Teacher's manual, cassette, activity books, posters, crafts, songs, recipes, dot-to-dot, games and coloring pages.

Pre-schooler-3rd grade

Please send —

___ copies of "teaching kit",	\$7.50 each
___ copies of "cassette",	\$7.95 each
___ copies of "activity book",	\$3.00 each

Please add \$1.00 for postage.

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

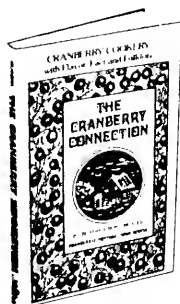
\_\_\_\_\_ ZIP \_\_\_\_\_

**CRANBERRIES MAGAZINE**  
P.O. BOX 249, COBALT, CT 06414

## The scoop of the year!

*Cranberry Flavor, Fact and Folklore in*

**THE CRANBERRY CONNECTION**, by Beatrice Buszek. Your favorite berry pops up in kitchen-tested recipes for every delight from Cranberry Bog to Cranberry-Banana Bread, Cranberry Avocado Dip, and countless other desserts, drinks, salads, entrees. "A fascinating revelation of the many uses for cranberries . . . you'll find this book a treasure."—*Des Moines Register*. Paperback, \$7.95.



Please send \_\_\_ copies of **THE CRANBERRY CONNECTION**, \$7.95 each.

Name \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_ Zip \_\_\_\_\_

Add \$1.00 for postage; Conn. residents add 7% sales tax.

**CRANBERRIES MAGAZINE**  
P. O. Box 249, Cobalt, CT 06414

# 1930 - 1980 50 YEARS OF SUCCESSFUL COMMITMENT

- To handling members' crops — all year, every year
- To developing and expanding the market for members' crops — nationally and internationally
- To generating consumer acceptance of the Ocean Spray trademark as the standard of excellence for the industry
- To increasing grower returns at a rate consistent with long-term stability and growth

Ocean Spray: the handler of choice now  
— and for the years ahead



Ocean Spray Cranberries, Inc., Plymouth, MA 02360



# CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

Vol. 45, No. 2

February 1981

SB  
383  
C7  
PER



**Trust probe alive . . . 3**  
★★★★★  
**Fairy ring control . . . 7**

Library UMass  
Serials Section  
Amherst MA 01002



**DEVIRINOL™**

**CASORON®**

**evital**  
A GRANULAR HERBICIDE FOR CRANBERRIES

We carry a complete inventory of cranberry insecticides,  
fungicides, fertilizers and herbicides



*Your Year-Round Service Center*

CRANBERRY HIGHWAY\*WEST WAREHAM, MASSACHUSETTS 02576\* (617) 295-1553

# FTC probe still goes on

The Federal Trade Commission investigation of possible monopoly practices by Ocean Spray Cranberries Inc. still is active after almost nine years.

CRANBERRIES checked the status of the probe recently by calling the FTC office in Boston as well as the cooperative's headquarters in Plymouth, Mass.

Underscoring that he is reluctant to talk about a probe that is in the non-public stage, George Wright of the FTC, in reply to a query, said no time frame has been set for the investigation.

Monopolization cases, he said, are very complex and routinely take a long time to look into. No, he replied, the Ocean Spray case is not breaking any time records and he referred to the long length of time spent investigating the IBM, AT&T and various oil industry cases.

Wright said he has been involved with the case a relatively short time and believes it was initiated in California as a case dealing with a possible violation of the Robinson-Patman Act (which relates to price cutting) and moved to the Boston FTC office in the mid-seventies.

Apparently the case has grown from a Robinson-Patman probe to a full-blown monopoly investigation.

Up at Ocean Spray headquarters, Kenneth J. Beeby, vice president and general counsel for the cooperative, reflected both chagrin and good humor about the situation.

"I will have been here eight years come February and this case is older than that," he said. "It bothers me somewhat that they haven't done anything yet. I wish they'd fish or cut bait. I think they should have acted faster if they've got something. As far as I'm concerned, the fact that they haven't is a sign of weakness on their side."

In reply to a query, he said the probe hasn't generated record gathering and other activity at Ocean Spray.

"It's been dull on this side of the fence. All I know is that they haven't gone away."

If the FTC finally moves against Ocean Spray, the case will be significant because it will test the anti-trust exemption for farmer's cooperatives in the Capper-Volstead Act. At least some government lawyers believe that the exemption is not a barrier to monopoly suits.

On the other hand, writing

in the Fall 1980 issue of *Harvest*, Ocean Spray's house organ, Beeby said:

"Even though recent legislation forbids the FTC from acting against activities of cooperatives protected by the Capper-Volstead antitrust exemption, the FTC investigation of Ocean Spray has not been withdrawn."

Wright and Beeby agree on one thing. They both perceive American history as showing Republicans more vigorous than

(continued on page 5)

**COVER ILLUSTRATION**  
MOST of cranberry country has been covered by a blanket of snow these past few weeks but it is never too early for thoughts of nutgrass and other weeds and plans to combat them in the spring.



Since 1933

Members of  
the SICPC

**Gage-Wiley & Co., Inc.**

**STOCKS & BONDS**

40 Court Street, Plymouth, Mass. 02361

**617-746-3322** Call Toll Free in Mass. **1-800-242-0263**



# IT TAKES JUST ONE HERBICIDE, USED ONCE A YEAR, TO GET TO THE ROOT OF YOUR WEED PROBLEMS.



CASORON® G-4 herbicide, by itself, controls more than 40 weeds, including ferns, rushes and sedges that can cut your cranberry yields. And CASORON gets them all with just one pre-season application.

CASORON strikes weeds where they're most vulnerable: at their roots. It stops even the hardest perennials before they have a chance to rob precious nutrients from your crop.

Just apply CASORON granules to bogs in early spring and relax. CASORON goes to work immediately, to

kill problem weeds the first time around. And the following spring, it will save you expensive man-hours normally spent spraying or hand-weeding stragglers.

For more than a decade, cranberry growers have

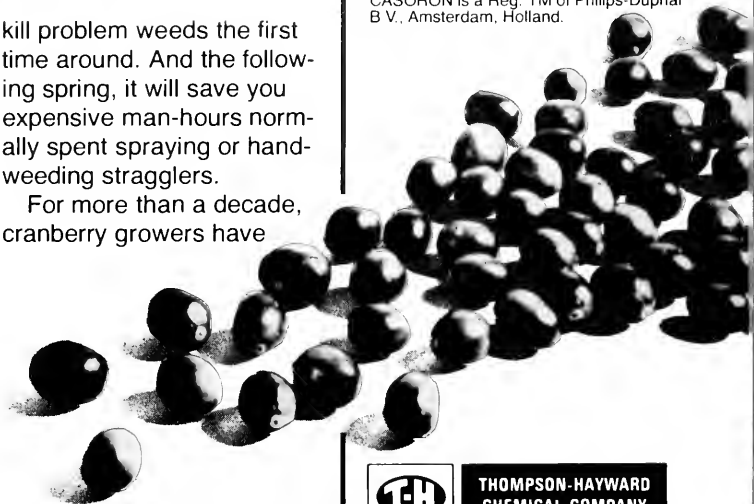
proved to themselves that CASORON gives the most effective control possible. Control that makes good economic sense.

Try it yourself. Get the once-a-year herbicide that puts an end to weed problems: CASORON herbicide granules.

## CASORON®

G-4 HERBICIDE

CASORON is a Reg. TM of Philips-Duphar B.V., Amsterdam, Holland.



**THOMPSON-HAYWARD  
CHEMICAL COMPANY**

NORTH AMERICAN PHILIPS  
P.O. Box 2383 • Kansas City, Kansas 66110

# editorial



## Some things never end

The year is 2000. The publisher of CRANBERRIES, his lips permanently pursed from years of drinking cranberry juice straight, is now 70 but he still creaks into the office daily. Today is the day for his annual ritual phone call to the Boston office of the FTC.

"Hello, Mr. Jones? . . . Oh, Mr. Jones has been transferred to Washington? . . . Ms. Smith is working on the Ocean Spray case? . . . Yes, I'll speak to her."

Lengthy pause.

"Good morning, Ms. Smith . . . Yes, I can understand that you're reluctant to speak because the investigation is in the non-public stage . . . Yes, I know these cases are very complex and take a great deal of time to investigate . . . but it's been 28 years now . . . and I thought . . . you might have something to report . . . well, I'll call you . . . (or whoever is working on the case) . . . next year . . . you have a nice day, too."

Ritual call 2. To Ocean Spray. D-r-i-i-i-n-g. "Hello, Mr. Beeby? . . . just checking on the FTC investigation . . . you say you wish they'd fish or cut bait? . . . if they had anything, you say, they'd have acted

(continued on page 12)

### Northern Wisconsin

#### CRANBERRY MARSH

600 acres near Hayward on Totogotic River.

53 acres producing.

Sprinklered & Equipped.

Stevens, Ben Lears, Searles.

Century 21

E.C. Hoover & Assoc.

Box 128

Eagle River, Wisc. 54521

(715) 479-6402 or (715) 547-3368

### FTC PROBE . . .

(continued from page 3)

Democrats in their pursuit of enforcement of antitrust legislation. Both agree, however, that it remains to be seen whether there will be any impact on the long standing case based on the change from Democratic to Republican control of the White House and Congress.

## CRANBERRIES

THE NATIONAL CRANBERRY  
MAGAZINE

—Our 44th Year of Publication—

VOLUME 45—NO. 2

February 1981

Send correspondence to:

P.O. Box 249  
Cobalt CT 06414

Phone: (203) 342-4730

Bob Taylor, Publisher/Editor

### ADVISORS, CORRESPONDENTS

**Massachusetts**—Dr. Chester E. Cross, Director, Massachusetts Cranberry Experiment Station; Irving Demoranville, Extension Cranberry Specialist, Massachusetts Cranberry Station; Michael Couture, East Wareham, Mass.

**New Jersey**—Philip E. Marucci, Cranberry and Blueberry Specialist, Cranberry and Blueberry Laboratory, Chatsworth, N.J.; Mary E. Archibald, Collingswood, N.J.

**Nova Scotia**—I.V. Hall, botanist, Research Station, Kentville, N.S.

**Oregon**—Arthur Poole, Coos County Extension Agent, Coquille, Ore.

**Washington**—Azmi Y. Shawa, Horticulturist and Extension Agent in Horticulture, Coastal Wash. Res. and Ext. Unit, Long Beach, Wash.

**Wisconsin**—Tod D. Planer, Farm Management Agent, Wood County; Joan E. Humphrey, Friendship.

CRANBERRIES is published monthly by the Taylor Publishing Co., Wellwyn Drive, Portland CT 06480. Second class postage is paid at the Portland, Conn., Post Office. Price is \$8 a year, \$15 for two years, 80 cents a copy in the U.S.; \$9 a year in Canada; \$10 a year in all other countries. Copyright 1980 by Taylor Publishing.

ISSN: 0011-0787



# weather watch

## MASSACHUSETTS

December was another in a series of cold months, averaging 3.8 degrees a day below normal. This was the third successive month with temperatures averaging more than 2.7 degrees a day below normal. This three month period is surpassed only by the cold fall of 1976. Maximum temperature was 58 degrees on the 9th and minimum -7 degrees on the 26th. The only warmer than average days were the 1st-3rd, 7th-9th, 13th and 29th. Cooler than average periods occurred on the 4th, 5th, 11th, 14th, 15th, 17th, 20-22nd, 25-27th and 31st.

Precipitation totaled 2.67 inches or about 1½ inches below normal. This was the driest December since 1966 and eighth driest in our records. There were 11 days with measurable precipitation, with 0.98 inches on the 29th as the greatest storm. Snowfall totaled 3.5 inches.

For the year 1980 our temperature averaged 1.4 degrees a day below normal. The only substantially warmer than normal months were July and August. Months with far below normal temperatures: January, February, March, June, October, November and December. Maximum temperature for the year was 92 degrees on June 27, Aug. 7 and Aug. 9. The minimum was minus 7 degrees at the end of the year (Dec. 26).

Precipitation for 1980 totaled 33.86 inches, which is almost exactly 13 inches below normal and 22½ inches less than in 1979. This was the third driest year in our records, with 1965 the driest and 1930 the second. Greatest precipitation from one storm was 1.87 inches on March 17-18. The only months with substantially above normal precipitation were March and October. Months with much below normal amounts were January, February, May, July, August, September and December.

Snowfall for the year totaled only 10.2 inches, which is a record low, beating out 1937 for the honor. This was only about 1/3 our usual amount. There were, of course, no large storms. I.E.D.

## NEW JERSEY

After a very hot and dry summer, the trend of weather in the autumn of 1980 was toward moderation.

During September, the heat and dryness was extended but October and November were appreciably cooler than normal and

only slightly deficient in rainfall. October was the first month since April in which the precipitation was above normal.

The autumn weather, summarized below, shows that it was about 1.2 degrees F warmer and 1.39 inches drier than normal.

Temperature: September, average degrees F, 69.2, deviation, +2.1; October, average degrees, 53.8, deviation, -2.4; November, average degrees, 42.9, deviation, -3.2.

(continued on page 12)

## Bog construction

## Vine setting

## Flumes and flume work

## Bog sand



# Nemasket Construction Co., Inc.

**275 Wareham St.,  
Middleboro MA 02346**

**(617) 947-1723**

# Experiments in disease control

By **BERT M. ZUCKERMAN**  
Plant Pathologist  
Massachusetts Cranberry  
Experiment Station

*During the 1980 growing season, the primary thrusts of the disease control programs in Massachusetts were developing new methods for control of Fairy Ring and screening for new and more effective cranberry fruit rot control fungicides.*

## FAIRY RING

Fairy Ring is extremely difficult to control. Changes in cultural practices, primarily the machine and water picking procedures, have resulted in spread of the disease on many bogs and, in certain cases, the economic impact has been severe.

Since nothing has been written about this disease for quite some time, the characteristics and causes of Fairy Ring on cranberries will be briefly summarized (diseases called "Fairy Ring" occur on lawns and in forests or orchards, the former caused by several species of fungi and the latter by the fungus *Armillaria mellea*, but in neither case are these the same diseases which occur on cranberries).

Cranberry Fairy Ring is caused by the fungus *Psilocybe agrariella* var. *vaccinii*. The fungus attacks the root system, killing most but not all of the roots, with the line of attack moving inexorably forward into areas of healthy vines. The disease usually progresses from a point of

infection outward—hence the name Fairy Ring. The inner portion of the circle thus formed contains scattered vines which have survived the attack, and invariably soon becomes infested with weeds. Thus the productivity of the areas may be significantly reduced.

Prior to 1960, control consisted of one of several practices: 1) ditching around the ring; 2) digging up the entire ring and replanting the area; 3) applying heavy doses of copper sulfate. The first two of these treatments are too expensive under current conditions and the last resulted in such great toxicity to cranberry vines as to make replanting impractical for years to come.

During the 1960's, control measures were developed involving treatment with concentrates of the fungicides ferbam, difolatan or maneb. In most cases, applications of either difolatan or maneb were effective, but, again, the current cost of materials makes this approach impractical. Later, some success was attained through the application of the fertilizer Sul-Po-Mag. In certain cases, growers have attained satisfactory control with Sul-Po-Mag, in others the results are very poor. The cause of this variation is not known.

The uncertainty of the control measures and the growing importance of the disease led to the initiation of new approaches to the control of Fairy Ring. These experiments were initiated

in July 1979, and comprised application of either large quantities of lime or of wood ashes. The wood ash treatments are messy to apply and appear to be totally ineffective—none of the three rings treated show evidence of control. Lime, on the other hand, thus far appears

(continued on the next page)

## CRANBERRY GROWERS REALTY

Listings of buyers and sellers welcomed on cranberry acreage and upland.

Appraisals

**DOUGLAS R. BEATON**  
E. Sandwich, Mass.  
02537  
(617) 888-1288

## CORRUGATED CULVERT PIPE

and

## FLOW GATES

Aluminum - Galvanized  
Asphalt Coated

**Felker Bros.  
Corp.**

**MARSHFIELD WISCONSIN**  
Area 715 384-3121

## EXPERIMENTS . . .

(continued from preceding page)  
to give highly acceptable control. In addition to the nine rings treated in these experiments, applications were made to two areas on a commercial scale in 1980. Treatments, thus far, at rates as low as 4,000 lbs. lime/acre, apparently give good control.

These findings give rise to feelings of cautious optimism, but it must be emphasized that several years' experience is needed to fully evaluate this control procedure and to assess the long range effects of lime on the productivity of the cranberry vines.

## FUNGICIDE TRIALS

One series of fungicide trials was quite disappointing in that after 10 weeks in storage the untreated controls contained only 3 percent rotted berries. This has occasionally happened in the past, making it impossible to obtain a valid estimate of the efficacy of the test fungicides in controlling cranberry fruit rot. The test chemicals in this trial were Maneb wettable (the standard fungicide), Maneb flowable (Dithane M-45 flowable), and three rates of Ronilan. One positive result was the demonstration that the highest rate of Ronilan tested (18 lbs/acre) was phytotoxic; yields were decreased significantly and berry size was smaller. The other materials will be retested next growing season.

A second series of trials in which four flowable fungicide formulations were tested gave more definitive results, although the total rot percentages were low. Each of the four materials—

Maneb flowable (Dupont DPX 7331), Triforine 18.5 EC, Magnetic 6 flowable sulfur and Quintar 5F—were applied at the rate of 4 quarts/acre, two applications (Table 1).

Of the four, the Maneb flowable gave the best control of cranberry fruit rot, had no negative effect on yield (in fact, the yield was higher but the difference was not statistically significant) and berry size was unaffected. These results are in line with many years' experience with the Maneb wettable powder formulations: good disease control and a slight but consistent effect on yield increase. The advantage of the flowable formulation over the wettable powder is that the expense of aerial application would be greatly reduced, for flowable fungicides can be more readily applied as concentrates, thereby reducing the amount of water required for effective distribution. These findings are encouraging and this Maneb formulation will be retested next season.

Quintar 5F caused a complete blasting of flowers, hence no yield. Possibly lower concentrations

would be less phytotoxic.

Triforine at the rate tested also caused a significant reduction in yield. Here again, testing at a lower concentration is indicated.

The results with the Magnetic  
(continued on page 10)

# DIRECTORY for Cranberry Growers

**The  
CHARLES W. HARRIS  
Company**  
451 Old Somerset Avenue  
North Dighton, Mass.  
Phone 824-5607  
**AMES**  
*Irrigation Systems*  
**RAIN BIRD**  
*Sprinklers*  
**HALE**  
*Pumps*  
Highest Quality Products  
with Satisfaction Guaranteed

## WISCONSIN CRANBERRY HEADQUARTERS FOR



EVITAL • SOLO • DIQUAT  
2-4-D • DOWPON • ETHREL  
SEVIN • PARATHION • GUTHION • DIAZINON  
KOCIDE • DIFOLITAN • FERBAM  
COPPER SULFATE • PRINCEP

## Cole Chemical Supply

DIVISION OF *Hopkins* AGRICULTURAL CHEMICAL CO  
P.O. BOX 7211, MADISON, WISCONSIN 53707  
608-221-1581

Table 1. Effects of 4 fungicides on rot control and yield of Cranberries, Massachusetts, 1980.

	% rot		
	<u>5 weeks</u> <sup>1</sup>	<u>Yield (gms)</u> <sup>2</sup>	<u>cup count</u>
Maneb flowable <sup>3</sup> (DPX 7331)			
(4 qts/acre)	4.5	1251	98
Triforine			
(4 qts/acre)	5.6	576	106
Magnetic 6 flowable sulfur (4 qts/acre)	6.1	973	109
Quintar 5F			
(4 qts/acre)	-	-	-
Untreated	8.1	1155	96

- 
1. Rot is given as the total field rot and rot after 5 weeks storage.
  2. Total weight of berries harvested from nine square feet.
  3. Rates are given as amount of formulated material/acre. Each fungicide was applied at 10% bloom and two weeks later.

# regional news notes

## Massachusetts

By IRVING DEMORANVILLE  
Dr. Charles Brodel, entomologist at the Massachusetts Cranberry Experiment Station, attended the national meeting of the Entomological Society of America in Atlanta from Dec. 1-4.

## Wisconsin

The Wisconsin Cranberry Growers Assn. elected officers and learned about the frost warning program and 1980 market promotion and research at its annual meeting Jan. 6 at Mead Inn in Wisconsin Rapids.

## Washington

By AZMI Y. SHAWA  
The author engaged in a panel on

"Control of Weeds in Cranberries with Devrinol" at the recent Stauffer Chemical Co. symposium in Hood River, Ore.

\*\*\*\*\*

The following events for West Coast Washington growers have been slated:

Feb. 3 and 4 at 6 p.m. at the Research and Extension Unit—Pesticide certification class, Azmi Shawa and Mary Toohey.

Feb. 10 at 7 p.m. at the North Willapa Harbor Grange Hall, Grayland, and Feb. 13 at 1 p.m. at the Long Beach Unit—Azmi Shawa will present an update on herbicide research work.

March 13 at 1 p.m. at the Long Beach Unit and March 17 at 7 p.m. at the North Willapa Harbor Grange Hall, Grayland—Dr. Peter Bristow, assistant plant pathologist, Western Washington Res. & Ext. Center, Puyallup, will present an update on fungicide research work.

\*\*\*\*\*

Washington State cranberry growers approved formation of a cranberry commission. Their vote far exceeded the legal requirements for the formation of any commission.

## FIRM LOSES LICENSE

Greer Bros. Dist. Inc. of Jersey City, N.J., had its produce trading license revoked for failing to pay promptly for \$78,354 worth of fruits and vegetables the firm purchased.

Under the Perishable Agricultural Commodities Act, all interstate traders in fresh and frozen fruits and vegetables must be licensed by the U. S. Department of Agriculture.

## EXPERIMENTS . . .

(continued from page 8)

6 flowable sulfur were indeterminate, but the reduction in berry size at a concentration which did not result in superior rot control does not indicate further testing.

In conclusion, the 1980 disease control program yielded encouraging results on Fairy Ring control and gave indication of at least one new fungicide formulation which may eventually be recommended for cranberry fruit rot control.

A MOST COMPLETE INVENTORY OF  
IRRIGATION ACCESSORIES



# LARCHMONT

ENGINEERING & IRRIGATION, INC.

P.O. Box 66, 11 Larchmont Lane, Lexington, MA 02173 (617) 862-2550

IRRIGATION EQUIPMENT DESIGNED ESPECIALLY  
FOR THE CRANBERRY INDUSTRY

— FOR EXAMPLE: —

*Gorman-Rupp Self Priming Electric Sprinkler Pumps*  
*Proven Quick Couple Riser*  
*Ingersoll-Rand Water Harvest Pumps*  
*Aluminum Insert Coupling For 4" Poly Pipe*

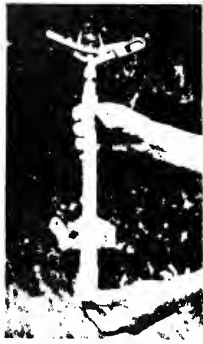
Contact:

Larchmont Engineering  
Phil Tropeano, President  
(617) 862-2550 (Call Collect)



Contact:

Bill Stearns, Plymouth, Mass.  
(617) 746-6048  
(617) 746-2610





Being a calculating consumer is a pretty good idea.

If you take careful note while you're shopping in markets today, you'll find more of that sensible breed around. They stick to their shopping lists and don't fall into the temptations of extravagant impulse buying.

Another noteworthy phenomenon is the increasing use of the pocket calculator by the shopper. In fact, it's become a favored gift for the cost-concerned homemaker. It's useful to quickly compute whether one is staying within one's budget as one shops and also to verify register totals at checkout counters.

Part of being economically prudent is to organize your menus to feature good food that is both nutritious and reasonable. Such foods can provide you with dishes that are tasteful and imaginative.

Here are three recipes which will help you keep your budget sound and yet provide unusual and enjoyable fare for your family and company, too.

### FISH CROQUETTES WITH SPICY Cranberry SAUCE

(Makes 12 croquettes)

1 lb. fish fillets (cod, flounder, sole, halibut, haddock)  
1 cup cooked cold rice

(continued on page 13)



CALCULATING consumers will appreciate the fish croquette, stuffed cabbage and lasagna dishes, all made with cranberries, seen above.

## Baldwin Excavators



Specializing in  
Agricultural Construction

Flumes  
Canals  
Land clearing  
Sanding  
Water holes  
Ditching  
Dikes  
Grading

Mert Howes  
295-5542

Fred Locke  
866-2639

COUNTY ROAD  
W. WAREHAM, MASS.  
02576

## WEATHER WATCH . . .

(continued from page 6)

Precipitation: September, total, 2.37, deviation, -1.39; October, total, 3.88, deviation, +0.64; November, total, 2.52, deviation, -0.94.

Extreme dryness throughout the Delaware Valley region has caused severe water shortages in several areas. In some localities, the situation is so acute, the water has had to be rationed. Concern is mounting and the need for long-range planning for future water supply is becoming a key political issue in New Jersey. Already, some hastily thought out multi-million dollar proposals have been made.

So far, Northern New Jersey is most seriously affected. In the cranberry region of Burlington County, water levels are below normal but have not reached critical levels. The accumulated precipitation total for the first 11 months of 1980 is 36.31 inches or only 4.29 inches below normal. Actually, we have been in a wet cycle. The total rainfall for the past 35 months has been 23.30 inches above normal and for the past 47 months there has been an excess of 26.13 inches.

Since the severe drought period of 1963 to 1965, when there was an accumulated deficiency of 31.58 inches, it has been rather consistently wet. Only three years (1970, 1974 and 1977) have been below normal since 1965. The total rainfall from 1965 to 1979 was 708.77 or 47.12 above normal and an average of 3.14 inches per year above normal.

P.E.M.

## NOVA SCOTIA

December was a wintry month with considerable snowfall and some record low temperatures.

As of Dec. 30, we had only a light snowcover, as we has just had two days of continuous rainfall.

If considerable snow comes in midwinter, growers should drain water out from under the ice to lessen the danger of oxygen deficiency.

I.V.H.

## WASHINGTON

The maximum temperature for November was 69 degrees on the 5th and the minimum was 28 degrees on

(continued on page 15)

## EDITORIAL . . .

(continued from page 5)

by now? . . . yes, you have a good day, too, and I'll call you next year."

The publisher hung up the phone, took a swig of cranberry juice, wrote the ritual FTC probe of Ocean Spray story, read the latest Marketing Committee report put out by Charles Hastings (who also was getting on in years), and mused about the fact that entertainers had occupied the White House after every election since 1980. This time it was President Marie Osmond.

## BARK RIVER *Culvert and Equipment Co.*

(Wisconsin-Michigan Growers)

ALUMINUM HEADGATES FABRICATED  
TO YOUR SPECIFICATIONS

HAND WHEEL OPERATED GATES

ALUMINUM CORRUGATED PIPE

INTERNATIONAL POWER UNITS

INTERNATIONAL CRAWLER TRACTORS

WARNER & SWASEY EXCAVATORS

WALDON LOADERS AND USED EQUIPMENT

Eau Claire, Wis.  
715-835-5157

Escanaba, Mich.  
906-786-6920

Milwaukee, Wis.  
414-461-5440

Madison, Wis.  
608-222-4151

Green Bay, Wis.  
414-435-6676

Ironwood, Mich.  
906-932-0222



**INTERNATIONAL CONSTRUCTION EQUIPMENT**

INTERNATIONAL HARVESTER COMPANY



## A Solid Investment

requires solid financing . . . and that's our specialty. Credit for equipment, land, buildings . . . all your financial needs. For Credit . . . Plus a full range of other finance-related services, see your local Farm Credit representative.

P.O. Box 7 Taunton, Mass. 02780 Tel: (617) 824-7578  
Office: Located on Rt. 44, 1/4 Mile West of Rt. 24



## COOK'S CORNER . . .

(continued from page 11)

1 egg, well beaten  
½ cup finely chopped celery  
½ cup minced onion  
1 can (10½ ounces) condensed cream  
of chicken soup, undiluted  
Cornflake crumbs  
Salt and pepper

### SAUCE:

½ cup butter or margarine  
1 cup chopped onions  
1 cup chopped celery  
¼ cup all-purpose flour  
2 cups (1 pint) cranberry juice  
cocktail  
2 envelopes dehydrated chicken  
broth

Cook fish and flake. Place flaked fish into a bowl and stir in rice, egg, finely chopped celery, minced onion and cream of chicken soup. Add enough cornflake crumbs until mixture holds its shape. Season mixture to taste with salt and pepper. Shape mixture into 12 cone shapes forming croquettes. Roll croquettes in enough cornflake crumbs to coat completely. Place croquettes side by

side on a greased cookie sheet. Melt butter in a saucepan. Brush half of the butter on croquettes. Bake croquettes in a preheated oven (350 degrees F) for 30 to 35 minutes or until crusty. While croquettes bake saute chopped onions and celery in remaining butter for 5 minutes. Pour mixture into a blender. Add remaining ingredients and whirl until smooth. Pour mixture back into saucepan and stir constantly over low heat until sauce bubbles and thickens. Season sauce to taste with salt and pepper. Spoon sauce over hot croquettes.

## CRANBERRY STUFFED CABBAGE

(Serves 6 )

18 large leaves green cabbage  
Boiling salted water  
1½ lbs. ground chuck  
1 can (8 ounces) whole berry  
cranberry sauce  
4 slices white bread, crumbled  
1 large onion, chopped  
2 teaspoons salt  
½ teaspoon pepper  
1 can (1 lb., 14 ounces) tomatoes,  
undrained and chopped

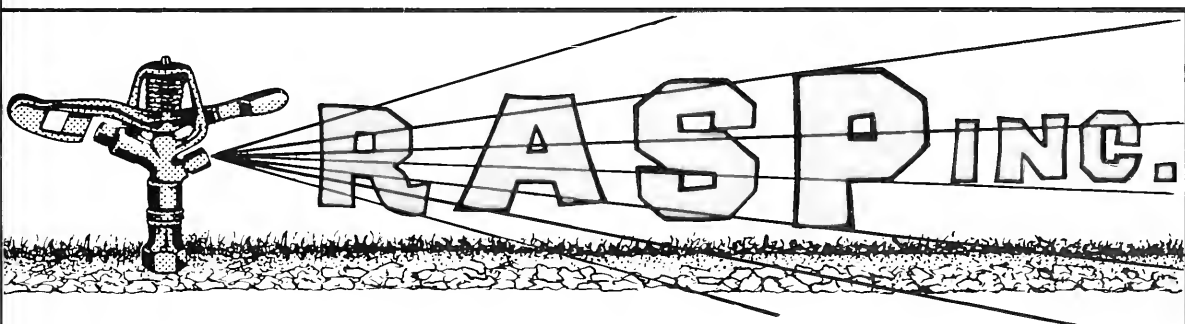
1 cup cranberry juice cocktail  
1/3 cup firmly packed brown

sugar

1/3 cup raisins

Place cabbage leaves in a large bowl and cover with boiling salted water. Let stand until leaves are wilted. Slice tough or thick ribs until thin dry leaves. In a large bowl mix chuck, sauce, bread, onion, salt and pepper. Place a large spoonful of meat mixture on each cabbage leaf. Turn in ends starting with thin sides of leaves; roll until a log shape. Place cabbage rolls side by side, seam side down in a large casserole or roasting pan. Combine remaining ingredients in a bowl and pour over cabbage rolls. Cover tightly and bake in a preheated moderate oven (350 degrees F) for 1 hour and 15 minutes. Remove cover and bake for another 15 minutes. Serve cabbage rolls with pan juice spooned over them.

(continued on the next page)



**AUTHORIZED AGWAY REPRESENTATIVE**

**LICENSED SPRAYING OF PESTICIDES (Seasonal)**

**WITH A COMPLETE LINE OF:**

**CRANBERRY INSECTICIDES • FUNGICIDES  
HERBICIDES • MITICIDES • and FERTILIZERS  
IN STOCK!**



**ROBERT A. ALBERGHINI – SPRAYING  
RFD 5 PLYMOUTH STREET, CARVER, MASS. 02330  
TELEPHONE: 866-4429**

For further information, call evenings after 5:30

**AGWAY**

**AGWAY**

## COOK'S CORNER . . .

(continued on the preceding page)

### CRANBERRY LASAGNA

(Makes one 13X9X2 inch casserole)

- 1 lb. sweet Italian sausage
- 2 medium onions, chopped
- ½ cup cranberry-orange relish
- 2 jars (15½ ounces each) marinara sauce
- 1 package (1 lb.) lasagna noodles, cooked and drained
- 1 lb. ricotta cheese or cottage cheese
- 1 lb. mozzarella cheese, sliced
- 1 cup grated Parmesan cheese

In a large skillet over low heat, cook sausages until richly browned; remove and drain. Add onions to fat in same skillet and cook 5 minutes; drain. Cool, and then coarsely chop, sausage. In a bowl, mix sausage, onions, relish and marinara sauce. Spoon some of the sauce over the bottom of a 13X9X2 inch baking pan. Add a layer of overlapping lasagna noodles, a layer of ricotta, some of the sauce, a layer of mozzarella slices and a layer of Parmesan cheese. Continue layering, using remaining ingredients and ending with remaining Parmesan cheese. Cover baking pan and bake lasagna in a preheated moderate oven (350 degrees F) for 1 hour. Remove cover and bake for another 10 minutes. Remove from oven and let lasagna stand for 15 minutes before cutting into squares.

## Mike's Portable Welding

Cranberry Equipment  
Built and Repaired  
*Clippers, Flumes  
and Wheel-offs,  
all types of equipment*

FREE ESTIMATE  
(617) 748-0014  
(617) 748-1415  
(617) 748-0031

## APPROVE \$1,500 GRANT


The officers and directors of the Cape Cod Cranberry Grower's Assn. recently voted \$1,500 for a study of the use of fungicides and specific

types of bacteria to destroy ice forming bacteria in cranberries.

The study will be done by Dr. Bert Zuckerman of the Massachusetts Cranberry Experiment Station in  
(continued on the next page)

**Office**  
295-2222

# BEATON'S CRANBERRY GROWERS SERVICE



WAREHAM, MASS.

**K. Beaton**  
295-2207

**D. Beaton**  
888-1288

**P. Beaton**  
947-3601

**Specializing in**

- DITCHING
- SANDING
- COMPLETE BOG MANAGEMENT

- NETTING
- WEED CLIPPING
- HARVESTING (Wet and Dry)

**Also**

**Complete line of portable Crisafulli Pumps 2" - 16"**  
**Plastic netting for suction boxes**

### The scoop of the year!

*Cranberry Flavor, Fact and Folklore in*

THE CRANBERRY CONNECTION, by Beatrice Buszek. Your favorite berry pops up in kitchen-tested recipes for every delight from Cranberry Bog to Cranberry-Banana Bread, Cranberry Avocado Dip, and countless other desserts, drinks, salads, entrees. "A fascinating revelation of the many uses for cranberries . . . you'll find this book a treasure."—*Des Moines Register*. Paperback, \$7.95.



Please send \_\_\_\_\_ copies of THE CRANBERRY CONNECTION, \$7.95 each.

Name \_\_\_\_\_

Address \_\_\_\_\_

Zip \_\_\_\_\_

Add \$1.00 for postage; Conn. residents add 7% sales tax.

**CRANBERRIES MAGAZINE**  
P. O. Box 249, Cobalt, CT 06414

**WEATHER WATCH . . .**

(continued from page 12)

Rainfall totaled 13.17 inches. The greatest single storm came on the 7th with 2.8 inches of precipitation. The 21st registered 2.11 inches.

A. Y. S.

**WISCONSIN**

Temperatures in Wisconsin during November averaged above normal, with only the second week having below average readings.

December began with a major snowstorm in the southern half of the state as a total of 3 to 6 inches were received on the 1st and 2nd. Northern areas received 1 to 3 inches of snow on the 3rd and again on the 6th and 7th.

Temperatures in December turned colder following the snowstorm at the beginning of the month. High readings were in the 20's on the 2nd and 3rd. Overnight lows dropped below zero in much of the state on the 3rd. Temperatures moderated to the 30's and 40's from the 4th through the 7th.

Frost depths as of Dec. 5 averaged 1½ inches, slightly less than the average of 2 inches for early December from 1961-79.

Wisconsin Agriculture Reporting Service

**APPROVE \$1,500 . . .**

(continued from preceding page)

East Wareham. Also approved was the distribution of 20,000 wetlands leadflets throughout the Plymouth, Barnstable and Bristol County Conservation Districts. David Mann, chairman, Arthur Handy and Irving Demoranville were appointed to a subcommittee to carry out the project.

It was agreed that President John

Decas would inquire about a possible opening on the Pesticide Board for which the cranberry growers could present a candidate.

It also was agreed to invite Guy Paris, assistant director of markets for the state, to the next meeting to

discuss the state matching funds program and monies earmarked for the advertising of Massachusetts grown cranberries for sale.

Rolling over the association's treasury bills for a six month period was approved.


# Niemi Electric Co.

ROBERT NIEMI

## ELECTRICAL CONTRACTORS

### HEAT, LIGHT and POWER WIRING

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL



**TEL. 295-1880**

Robert Niemi    Pinchurst Dr.    Wareham, Mass.

**STAY INFORMED**

subscribe to CRANBERRIES

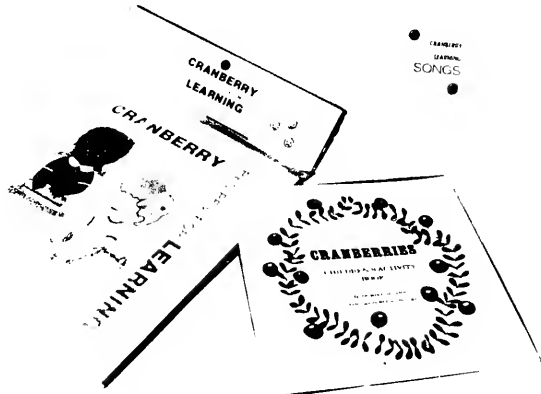
\$8 a year; \$15 two years

Send check or money order to:

CRANBERRIES  
P.O. Box 249  
COBALT CT 06414

All about growing and harvesting cranberries. Teacher's manual, cassette, activity books, posters, crafts, songs, recipes, dot-to-dot, games and coloring pages.

Pre-schooler-3rd grade



Please send —

_____ copies of "teaching kit",	\$7.50 each
_____ copies of "cassette",	\$7.95 each
_____ copies of "activity book",	\$3.00 each

Please add \$1.00 for postage.

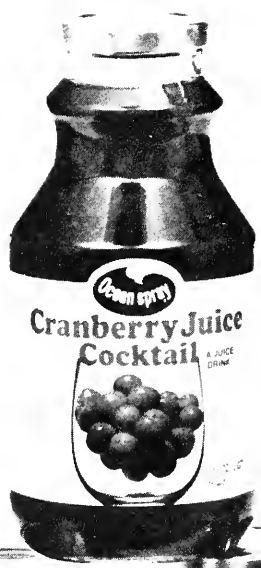
NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

ZIP \_\_\_\_\_

**CRANBERRIES MAGAZINE**  
P.O. BOX 249, COBALT, CT 06414

# IN EVERY INDUSTRY THERE IS A NAME FOR QUALITY



OCEAN SPRAY CRANBERRIES, INC., PLYMOUTH, MASS. 02360

AN EQUAL OPPORTUNITY EMPLOYER



# CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

Vol. 45, No. 3

March 1981

SB  
383  
C7  
PER



**She's author at 88 . . .3**  
**★★★★★**  
**A weed wiper . . .6**

Library UMass  
Serials Section  
Amherst MA 01002

# IT TAKES JUST ONE HERBICIDE, USED ONCE A YEAR, TO GET TO THE ROOT OF YOUR WEED PROBLEMS.



CASORON® G-4 herbicide, by itself, controls more than 40 weeds, including ferns, rushes and sedges that can cut your cranberry yields. And CASORON gets them all with just one pre-season application.

CASORON strikes weeds where they're most vulnerable: at their roots. It stops even the hardest perennials before they have a chance to rob precious nutrients from your crop.

Just apply CASORON granules to bogs in early spring and relax. CASORON goes to work immediately, to

kill problem weeds the first time around. And the following spring, it will save you expensive man-hours normally spent spraying or hand-weeding stragglers.

For more than a decade, cranberry growers have

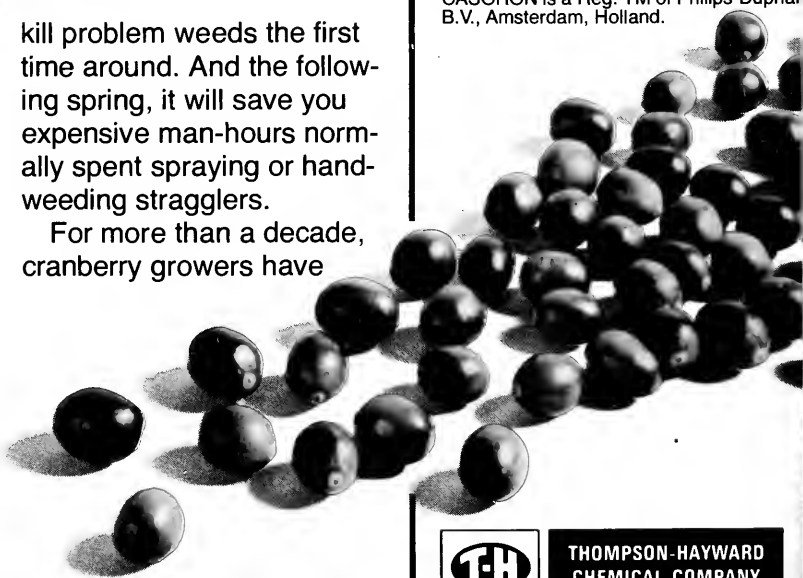
proved to themselves that CASORON gives the most effective control possible. Control that makes good economic sense.

Try it yourself. Get the once-a-year herbicide that puts an end to weed problems: CASORON herbicide granules.

## CASORON®

**G-4 HERBICIDE**

CASORON is a Reg. TM of Philips-Duphar B.V., Amsterdam, Holland.



**THOMPSON-HAYWARD  
CHEMICAL COMPANY**

A NORTH AMERICAN PHILIPS COMPANY  
P.O. Box 2383 • Kansas City, Kansas 66110

# Wisconsin woman wanted to keep berry past alive

By JOAN E. HUMPHREY

Lela Potter Winn recalls the days when travel was so slow that when you came into Wisconsin Rapids from the cranberry marshes, you stayed the night with friends because the round trip was too much for one day's travel.

WINN, 88, recently had her first book, *The Marsh: A Century of Cranberries*, published.

She didn't start out to write a book but just as a hobby began to write down family history and stories about the cranberry marshes to be passed on to her grandchildren.

An editor friend read some of her work and insisted she should write a book. So began

a 26 year avocation—writing, researching, rewriting, adding new information and rewriting some more.

Much of the book is taken from her own experiences. The major characters in *The Marsh* are her parents, Melvin and Auril Woodruff Potter, but she also has included many of the other cranberry families and a lot of history and lore about the cranberry industry.

She chuckles when she

recalls an episode about her poor concept of space as a youth. It seems she was describing her father's marsh to a fellow student at Stevens Point Normal School.

"He asked how big our marsh was," she said. "I said, 'Really big. Almost as far as you could see in any direction, I think about 150 acres.' He just stood a moment looking a bit puzzled, then shrugged and walked away. Later, when I was home on a holiday, I told my father about it. He laughed and said no doubt he (the student) thought I was a dumb bunny. Dad informed me our marsh was 1,500 acres."

"ONCE I HAD the book written, (continued on page 10)

COVER ILLUSTRATION  
WEED of the month, this one being the fall Panicum.

A MOST COMPLETE INVENTORY OF IRRIGATION ACCESSORIES



# LARCHMONT

ENGINEERING & IRRIGATION, INC.

P.O. Box 66, 11 Larchmont Lane, Lexington, MA 02173 (617) 862-2550

IRRIGATION EQUIPMENT DESIGNED ESPECIALLY FOR THE CRANBERRY INDUSTRY

FOR EXAMPLE:

- Gorman-Rupp Self Priming Electric Sprinkler Pumps*
- Proven Quick Couple Riser*
- Ingersoll-Rand Water Harvest Pumps*
- Aluminum Insert Coupling For 4" Poly Pipe*

Contact:

Larchmont Engineering  
Phil Tropeano, President  
(617) 862-2550 (Call Collect)



Contact:

Bill Stearns, Plymouth, Mass.  
(617) 746-6048  
(617) 746-2610





# Evital<sup>®</sup> controls nutgrass and cutgrass. And 14 more troublesome weeds in cranberries.

Evital doesn't fall short in effective weed control. It stops **16** profit-robbing weeds, including tough ones like smoke grass, spike rush, and barnyard grass.

- **evital** stops tough weeds in cranberries better than any other granular herbicide.
- **evital** is a sand-core granule making it an outstanding aerial formulation; easy ground application as well.
- **evital** is the No. 1 choice to apply over newly-sanded bogs to prevent weed emergence.

It's the broad spectrum weed-control herbicide that cranberry growers depend on year after year.

(Use herbicides effectively. Read and follow label directions carefully.)

  
**evital<sup>®</sup>**  
**GRANULAR HERBICIDE FOR CRANBERRIES**



Sandoz, Inc. Crop Protection/480 Camino Del Rio South/San Diego, CA 92108

Copyright, 1980, Sandoz, Inc.

# editorial



## Hope Reagan lives up to promise

This is a magazine about cranberries not the economy. But the economy affects cranberrying as it does every aspect of business and farming and for that reason increases our hope that President Reagan is able to fulfill the promise he has made to the American people to cut federal spending, produce a balanced budget and eliminate inflation.

On inflation, we can at least hope for a sharp reduction.

And let's hope the Congress as a whole supports the efforts to economize and does not cave under to every special interest group that fattens itself at the public trough.

In his well delivered, compact speech on the economy, President Reagan bluntly labeled the country's situation an "economic mess."

Rejecting the notion that we must continue in the future to keep shifting uncomfortably from the sharp horn of inflation to the pointed horn of unemployment and back again, he said:

(continued on page 7)

## PESTICIDE EXAMS

The 1981 dates for pesticide examinations at the Massachusetts Cranberry Experiment Station in East Wareham are March 3, May 5, July 7, Sept. 3 and Nov. 2.

You must pre-register with the Pesticide Board at least one week before taking the exam.

## CRANBERRIES

### THE NATIONAL CRANBERRY MAGAZINE

—Our 45th Year of Publication—

VOLUME 45—NO. 3

March 1981

Send correspondence to:

P.O. Box 249  
Cobalt CT 06414

Phone: (203) 342-4730

Bob Taylor, Publisher/Editor

### ADVISORS, CORRESPONDENTS

**Massachusetts**—Dr. Chester E. Cross, Director, Massachusetts Cranberry Experiment Station; Irving Demoranville, Extension Cranberry Specialist, Massachusetts Cranberry Station; Michael Couture, East Wareham, Mass.

**New Jersey**—Philip E. Marucci, Cranberry and Blueberry Specialist, Cranberry and Blueberry Laboratory, Chatsworth, N.J.; Mary E. Archibald, Collingswood, N.J.

**Nova Scotia**—I. V. Hall, botanist, Research Station, Kentville, N.S.

**Oregon**—Arthur Poole, Coos County Extension Agent, Coquille, Ore.

**Washington**—Azmi Y. Shawa, Horticulturist and Extension Agent in Horticulture, Coastal Wash. Res. and Ext. Unit, Long Beach, Wash.

**Wisconsin**—Tod D. Planer, Farm Management Agent, Wood County; Joan E. Humphrey, Friendship.

CRANBERRIES is published monthly by the Taylor Publishing Co., Wellwyn Drive, Portland CT 06480. Second class postage is paid at the Portland, Conn., Post Office. Price is \$8 a year, \$15 for two years, 80 cents a copy in the U.S.; \$9 a year in Canada; \$10 a year in all other countries. Copyright 1980 by Taylor Publishing.

ISSN: 0011-0787

## BEATON'S CRANBERRY GROWERS SERVICE



WAREHAM, MASS.

Office  
295-2222

K. Beaton  
295-2207

D. Beaton  
888-1288

P. Beaton  
947-3601

Specializing in

- DITCHING
- NETTING
- SANDING
- WEED CLIPPING
- COMPLETE BOG MANAGEMENT
- HARVESTING (Wet and Dry)

Also

Complete line of portable Crisafulli Pumps 2" - 16"  
Plastic netting for suction boxes



# Pine Barrens called a national treasure

By ELIZABETH CARPENTER

Cecil D. Andrus, former secretary of the U.S. Department of the Interior, recently referred to the New Jersey Pine Barrens as "a national treasure" when he approved a state preservation plan for the region.

Just how much of a treasure the region is is seen in *Pine Barrens: Ecosystem and Landscape*, a compilation of scientific and historic information published by Academic Press.

New Jersey's more than 100 year old cranberry industry, as the books points out, is an integral part of the state's nationally recognized 2,250 square mile Pine Barrens.

*Pine Barrens*, dedicated to the eminent ecologist and Pine Barrens scholar, Murray Fife Buell (1905-1975), contains vivid descriptions and scientific data written in layman's terms by 43 Pine Barrens authorities, including the work's editor, Richard T.T. Forman.

---

## CRANBERRY STATION SCHEDULES SEMINARS

The Massachusetts Cranberry Experiment Station in East Wareham, Mass., has scheduled three seminars for March.

The first, on March 4, will deal with cranberry insect pests and their management and will be given by Dr. Charles F. Brodel. Included among the topics will be protective clothing and understanding of the pesticide label.

On March 11 Dr. R. M. Devlin will lead the seminar on "Future Weed Control in Cranberries" and Prof. I.E. Demoranville will head one titled "Weeds of Cranberry Bogs."

On March 18 Dr. Chester E. Cross, station director, will discuss water management and Prof. J. S. Norton will talk about sprinkler use and management.

Dr. Forman, Rutgers University botany professor and director of the state university's Hutcheson Memorial Forest, and his fellow scientists discuss this central and southern New Jersey region's geology, soils, climate, hydrology, vegetation and animal life. In addition, the impact of man's activities on the land and the area's frequent fires are related to the overall Pine Barrens ecosystem.

Philip E. Marucci, research professor in entomology and extension specialist in cranberry

and blueberry culture at the Chatsworth based Rutgers Research Center, has made significant contributions in two of the text's chapters—"Plant and Animal Products of the Pine Barrens" and "Arthropods of the Pine Barrens." Phil works closely with area growers, in addition to serving as secretary to the American Cranberry Growers Assn.

The existence of such a valuable, authoritative book on the region is especially important at this time, considering the recent national attention focused on the area's unique ecosystem and the need for all people to live harmoniously with their natural surroundings.

---

## EDITORIAL . . .

(continued from page 5)

"It's time to try something different and that's what we're going to do."

Hopefully, in several years we can look back and say we tried something different and it worked.

---

# DEVIRINOL<sup>®</sup> 10-G

## AVAILABLE AT THESE STORES:

Robert Alberghini  
Carver, MA  
617-866-4429  
New Bedford Agway  
New Bedford, MA  
617-997-0093

Cape Agricultural Supply Inc.  
Sandwich, MA  
617-888-0044

Pilgrim Agricultural Supply Inc.  
Plymouth, MA  
617-746-0970  
Merle Stetson  
E. Taunton, MA  
617-822-6748

*Devirinol is a registered trademark of Stauffer Chemical Co.*





**DEVRI<sup>®</sup>NOL**

**CASORON<sup>®</sup>**

**evital**  
A GRANULAR HERBICIDE FOR CRANBERRIES

We carry a complete inventory of cranberry insecticides,  
fungicides, fertilizers and herbicides



*Your Year-Round Service Center*

CRANBERRY HIGHWAY\*WEST WAREHAM, MASSACHUSETTS 02576\* (617) 295-1553

Nutgrass



Rice cutgrass



# Control nutgrass and cutgrass without harming your vines. Use Devrinol.<sup>®</sup>

Selective Herbicide

**Massachusetts cranberry growers**, you can control both nutgrass and rice cutgrass without harming your vines.

Use Devrinol<sup>®</sup> herbicide. Devrinol gives excellent control of these tough weeds with good crop tolerance.

Apply Devrinol 10-G in the spring, before weeds begin to grow. Or, you can apply Devrinol in the fall, after harvest.

Control nutgrass and cutgrass without harming your vines. See your Stauffer supplier for Devrinol. For use in Massachusetts only. Always follow label directions carefully. Stauffer Chemical Company, Agricultural Chemical Division, Westport, Connecticut 06880.



# Devrinol<sup>®</sup>

## WISCONSIN WOMAN . . .

(continued from page 3)

getting it published was no easy task," Winn said. "New York publishing houses weren't willing to take a risk. They refused to buy the work of an unknown author about an industry in such a remote area—remote to New York, that is."

Winn, a feisty little lady, undaunted by rejections, decided to try the subsidy publisher route.

"Well," she declared, "that almost changed my mind about getting the book published. The firm I sent it to went into bankruptcy shortly after I sent them my only copy of the manuscript and \$5,000. They had my money and my manuscript and to retrieve the manuscript, I had to go through New York State legal authorities. Of course, I never did recover any of my money."

But five years later, she decided to give it another try. But this time she had copies of her manuscript and had made an investigation in advance of the publisher, Exposition Press.

On December 23, the first 70 copies of her book arrived—a dream

come true. Already she has had to order a second printing.

"I was disappointed there were some delays and I didn't have the book in time for Christmas sales," she said.

"But I need not have worried because these 70 copies went so fast and I have a huge list awaiting the second printing," she added, with great pride.

Appropriately, the cover of her



**88-YEAR-OLD AUTHOR Lela Potter Winn holds her book on the history of cranberry cultivation in central Wisconsin.**

(CRANBERRIES photo by Joan E. Humphrey)

hardbound, 128 page book is a rich, cranberry hue.

THOUGH WINN married out of the cranberry business, her family is still in cranberries and this past summer the Potter marshes celebrated a century of cranberries. Family members help her a great deal with editing and verification of facts, often filling in pertinent information.

"I would think it a shame if all this colorful history of cranberries and the families who have made them one of our most important fruit crops were not recorded," she said. "My book will keep the memories alive, even if I never make a dime on it."

Already, she has started compiling material for a sequel, which will cover the years between 1900 to date.

## BARK RIVER *Culvert and Equipment Co.*

(Wisconsin-Michigan Growers)

**ALUMINUM HEADGATES FABRICATED  
TO YOUR SPECIFICATIONS**

**HAND WHEEL OPERATED GATES**

**ALUMINUM CORRUGATED PIPE**

**INTERNATIONAL POWER UNITS**

**INTERNATIONAL CRAWLER TRACTORS**

**WARNER & SWASEY EXCAVATORS**

**WALDON LOADERS AND USED EQUIPMENT**

**Eau Claire, Wis.**  
715-835-5157

**Escanaba, Mich.**  
906-786-6920

**Milwaukee, Wis.**  
414-461-5440

**Madison, Wis.**  
608-222-4151

**Green Bay, Wis.**  
414-435-6676

**Ironwood, Mich.**  
906-932-0222



**INTERNATIONAL CONSTRUCTION EQUIPMENT**

INTERNATIONAL HARVESTER COMPANY

**WINN HAS LIVED** in Wisconsin Rapids all her life, except for 16 years in Granton, where she taught school for two years after graduation from the teacher's college at Stevens Point. At Granton, she met and married Byrl F. Winn in 1915.

When the Depression forced her husband to close his feed and seed business, they moved to Wisconsin Rapids, where he went into the real estate and insurance business. He died in 1969.

Mrs. Winn has always played a prominent role in such organizations as Eastern Star and the Rebekahs. She is the founder of three garden clubs and has been an active member of the South Wood Historical Society.

She takes great pride in the Cranberry Room at the historical museum, often serving as a guide. Her parents' bedroom set occupies the Potter Bedroom at the museum.

Winn is currently residing with her son and daughter-in-law because of a broken hip. She is looking forward to a quick healing, the spring thaw and a return to her own home so she can get back to work again, setting down the history of cranberry in central Wisconsin.

## weather watch

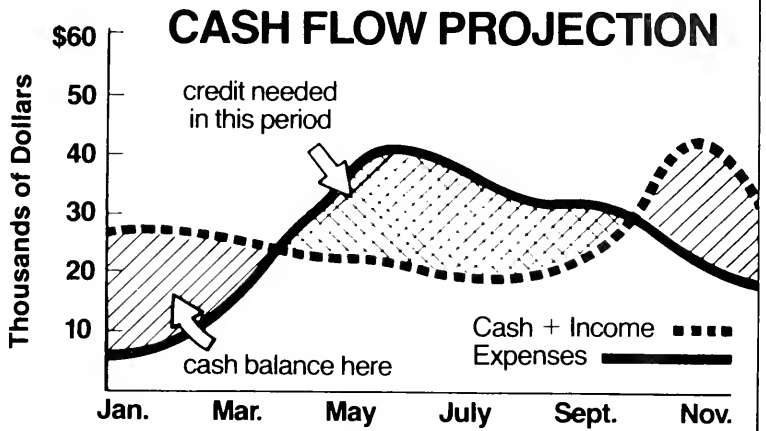
### NOVA SCOTIA

According to our weather record at Kentville, the 50-year average temperature for December is -3.1 degrees C. December 1980 was somewhat colder, the mean for the month being -5.3.

Things had not improved during January and, as of the 26th, we had about as much snow on the ground as at any time since I came to Kentville in 1949.

I was out of the province during Jan. 9-20 and I understand that most of the snow came during the weekend of the 9th to the 11th.

I.V.H.



## Cash Flow: the pulse of your farm



Farming is everybody's bread & butter.

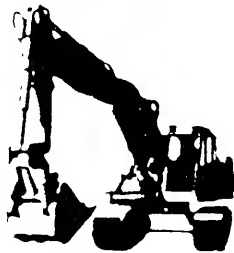
Every farm has its pulse — its regular tide of income and expenses, easily seen on a cash-flow chart.

When you know your farm's cash flow, you know when to expect a cash surplus. Or, when to take out a loan — or, just as important, how much to borrow, so you won't have money loafing around.

Knowing your cash flow can help you be a better financial manager. It helps you take advantage of discounts. See us, and we'll help you start your cash-flow planning today.

**Production Credit Associations of Wisconsin**

## Baldwin Excavators



Mert Howes  
295-5542

Fred Locke  
866-2639

COUNTY ROAD  
W. WAREHAM, MASS.  
02576

Specializing in  
Agricultural Construction

*Flumes*  
*Canals*  
*Land clearing*  
*Sanding*  
*Water holes*  
*Ditching*  
*Dikes*  
*Grading*



## OCEAN SPRAY HONORS BROKERS

Ocean Spray Cranberries has presented six leading food brokers, including three retail and three food service concerns, with its annual Broker of the Year Award.

Formal recognition of the brokers, located in the south, midwest and east, occurred at the 1980 National Food Brokers Assn. convention in Las Vegas.

Retail brokers honored included Food Enterprises Inc., Canton, Mass., Jim McMannis Associates, Oklahoma City, and Dixon Associates, Harrisburg. Food service winners were Quesenberry & Catlin, Miami, Tom Trump Co., Milwaukee, and H. S. Humphreys, Memphis.

The awards were made in three categories keyed to market size and covered the July 1, 1979 to June 30, 1980 sales period.

According to Andrew J. Murray, Ocean Spray's vice president of sales, the award criteria included overall sales, distribution gains, promotional achievements, administrative abilities, feature/display activity, headquarter effectiveness and retail execution.

Each of the winning brokerage companies received a check from Ocean Spray for one-half of one percent of

their total 1980 sales year billings.

Accepting the retail awards from Mr. Murray and Ocean Spray President Harold Thorkilsen at the Las Vegas convention were Frank Luca, Gerry Ajemian, Jim Reid and Bob Durgin of Food Enterprises; Frank Kelley and Carl Coffey of Jim McMannis, and John Dixon of Dixon Associates.

The food service awards were accepted by Bill Quesenberry and Lolita Lawrence of Quesenberry & Catlin; Tom Trump and Gordon Man of Tom Trump Co., and Robert Bake of H.S. Humphreys.

### **CORRUGATED CULVERT PIPE**

and

### **FLOW GATES**

Aluminum - Galvanized  
Asphalt Coated

### **Felker Bros. Corp.**

**MARSHFIELD WISCONSIN**

**Area 715 384-3121**

### **Mike's Portable Welding**

Cranberry Equipment  
Built and Repaired

*Clippers, Flumes  
and Wheel-offs,  
all types of equipment*

FREE ESTIMATE

(617) 748-0014

(617) 748-1415

(617) 748-0031

## **Bog construction**

## **Vine setting**

## **Flumes and flume work**

## **Bog sand**



## **Nemasket Construction Co., Inc.**

**275 Wareham St.,  
Middleboro MA 02346**

**(617) 947-1723**

## FARM NUMBERS IN WISCONSIN SAME

The number of farms in Wisconsin as of Jan. 1, 1981 was estimated at 93,000, unchanged from the revised estimate for Jan. 1, 1980.

This is the first time since 1947 that Wisconsin farm numbers have not declined. A farm is defined to be a place with an annual sale of agricultural products of \$1,000 or more.

Farm numbers in Wisconsin declined at a slower rate during the 1970's than the 1960's when the annual reduction was usually 3,000 farms. The current number of farms is less than half of the peak of 200,000 farms reached in 1935. Farm numbers are now the lowest since the 1860's.

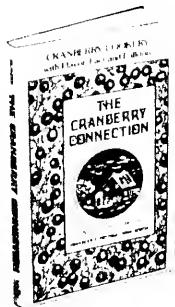
Land in farms was estimated at 18.6 million acres as of Jan. 1, 1981, also unchanged from a year ago. Over 5 million acres have been removed from agriculture since 1942 when a high of 24 million acres was in Wisconsin farmland.

Harold J. Berthold has been appointed vice president in charge of product development for the Grand Union Co.

## The scoop of the year!

*Cranberry Flavor, Fact and Folklore in*

**THE CRANBERRY CONNECTION**, by Beatrice Buszek. Your favorite berry pops up in kitchen-tested recipes for every delight from Cranberry Bog to Cranberry-Banana Bread, Cranberry Avocado Dip, and countless other desserts, drinks, salads, entrees. "A fascinating revelation of the many uses for cranberries . . . you'll find this book a treasure."—*Des Moines Register*. Paperback, \$7.95.



Please send  copies of **THE CRANBERRY CONNECTION**, \$7.95 each.

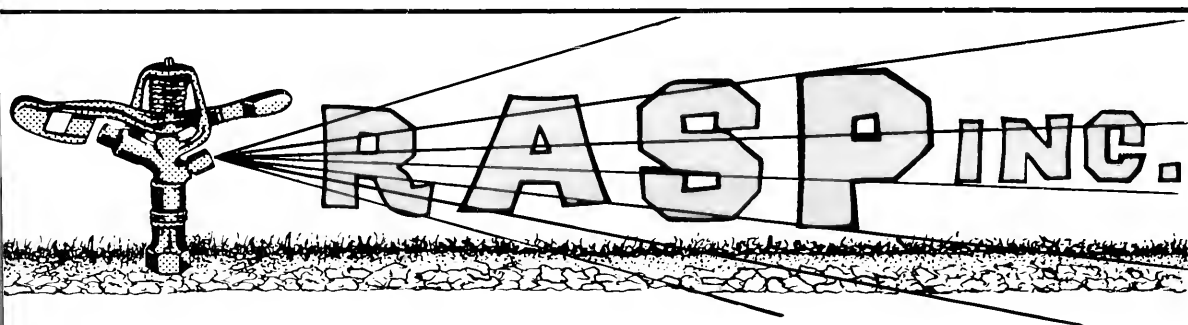
Name

Address

Zip

Add \$1.00 for postage; Conn. residents add 7% sales tax.

**CRANBERRIES MAGAZINE**  
P. O. Box 249, Cobalt, CT 06414



**AUTHORIZED AGWAY REPRESENTATIVE**

**LICENSED SPRAYING OF PESTICIDES (Seasonal)**

**WITH A COMPLETE LINE OF:**

**CRANBERRY INSECTICIDES • FUNGICIDES  
HERBICIDES • MITICIDES • and FERTILIZERS  
IN STOCK!**

**ROBERT A. ALBERGHINI — SPRAYING**  
RFD 5 PLYMOUTH STREET, CARVER, MASS. 02330  
TELEPHONE: 866-4429

For further information, call evenings after 5:30





CRANBERRY SOUFFLE (foreground) is the perfect ending to a light meal. Cranberry orange cream cheese ice cream cake would make a perfect birthday or any occasion party cake.



Part of the fun of cooking is the joy of producing a recipe that looks fantastic. The easy way to create visually beautiful dishes without last minute panic is to rely on dishes that can be frozen.

A frozen souffle, for example, like the Cranberry Souffle pictured, can be as dramatic as a hot souffle without the last minute problems of rushing hot souffle or guests to the

**DIRECTORY**  
for  
**Cranberry**  
**Growers**

The  
**CHARLES W. HARRIS**  
**Company**

451 Old Somerset Avenue  
North Dighton, Mass.  
Phone 824-5607

**AMES**  
Irrigation Systems  
**RAIN BIRD**  
Sprinklers  
**HALE**  
Pumps

Highest Quality Products  
with Satisfaction Guaranteed

**Niemi Electric Co.**

ROBERT NIEMI

ELECTRICAL CONTRACTORS

HEAT, LIGHT and POWER WIRING

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL



TEL. 295-1880

Robert Niemi      Pinchurst Dr.      Wareham, Mass.

dinner table.

*Ice cream desserts are always crowd pleasers. Our second dessert, Cranberry Orange Cream Cheese Ice Cream Cake, is a melange of ice cream mixed with cranorange relish, plus a cream cheese with a graham cracker crust. The "cake" gets a topping of cranberry orange relish and a lattice of whipped cream.*

### CRANBERRY ORANGE CREAM CHEESE ICE CREAM CAKE

(makes 12 servings)

- 1 cup graham cracker crumbs
- 3 tablespoons sugar
- ½ teaspoon ground cinnamon
- 3 tablespoons butter or margarine, melted
- 2 packages (8 ounces each) cream cheese
- 1 quart vanilla ice cream
- 1 cup cranberry orange relish
- ½ cup heavy cream, whipped (optional)

Combine crumbs, sugar, cinnamon and butter in small bowl; blend well. Press firmly over the bottom and sides of a buttered 8-inch springform pan; chill. Beat cream cheese in large bowl until soft and fluffy. Soften ice cream in a chilled large bowl; beat into cream cheese until just blended. Ripple relish through ice cream-cheese mixture into prepared pan—¼ of the ice cream-cheese mixture and 3½ tablespoons cranberry orange relish at a time, until 2/3 of a cup of the relish and all of the ice cream-cheese mixture is used. Smooth top with a spatula and cover with plastic wrap. Freeze overnight or until firm. Remove dessert from freezer ½ hour before serving. Spread remaining 1/3 cup cranberry orange relish over top. If desired, decorate with whipped cream piped through pastry bag fitted with a small star tip.

### WATER RIGHTS CASE STILL UNRESOLVED

The rights to water from Black Lake and Tarlett Slough in the town of Ilwaco, Wash., still is being

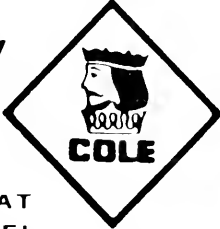
negotiated between local cranberry growers and town officials.

The growers, some of whom claim their water rights were established as early as 1909, want to be assured of having sufficient water for harvesting. On the other hand, the town also draws from the lake and slough.

The town has hired a water rights lawyer to help it work out an agreement and the cranberry men have indicated a willingness to give the town time to come up with a satisfactory arrangement.

Advertise in CRANBERRIES

## WISCONSIN CRANBERRY HEADQUARTERS FOR



### Cole Chemical Supply

EVITAL • SOLO • DIQUAT  
2-4-D • DOWPON • ETHREL  
SEVIN • PARATHION • GUTHION • DIAZINON  
KOCIDE • DIFOLITAN • FERBAM  
COPPER SULFATE • PRINCEP

DIVISION OF *Hopkins* AGRICULTURAL CHEMICAL CO  
P.O. BOX 7211, MADISON, WISCONSIN 53707  
608-221-1581

  
  
  
**Credit . . . Plus!**

## A Solid Investment

requires solid financing . . . and that's our specialty. Credit for equipment, land, buildings . . . all your financial needs. For Credit . . . Plus a full range of other finance-related services, see your local Farm Credit representative.

P.O. Box 7 Taunton, Mass. 02780 Tel: (617) 824-7578  
Office: Located on Rt. 44, ¼ Mile West of Rt. 24

# IN EVERY INDUSTRY THERE IS A NAME FOR QUALITY



OCEAN SPRAY CRANBERRIES, INC., PLYMOUTH, MASS. 02360

AN EQUAL OPPORTUNITY EMPLOYER

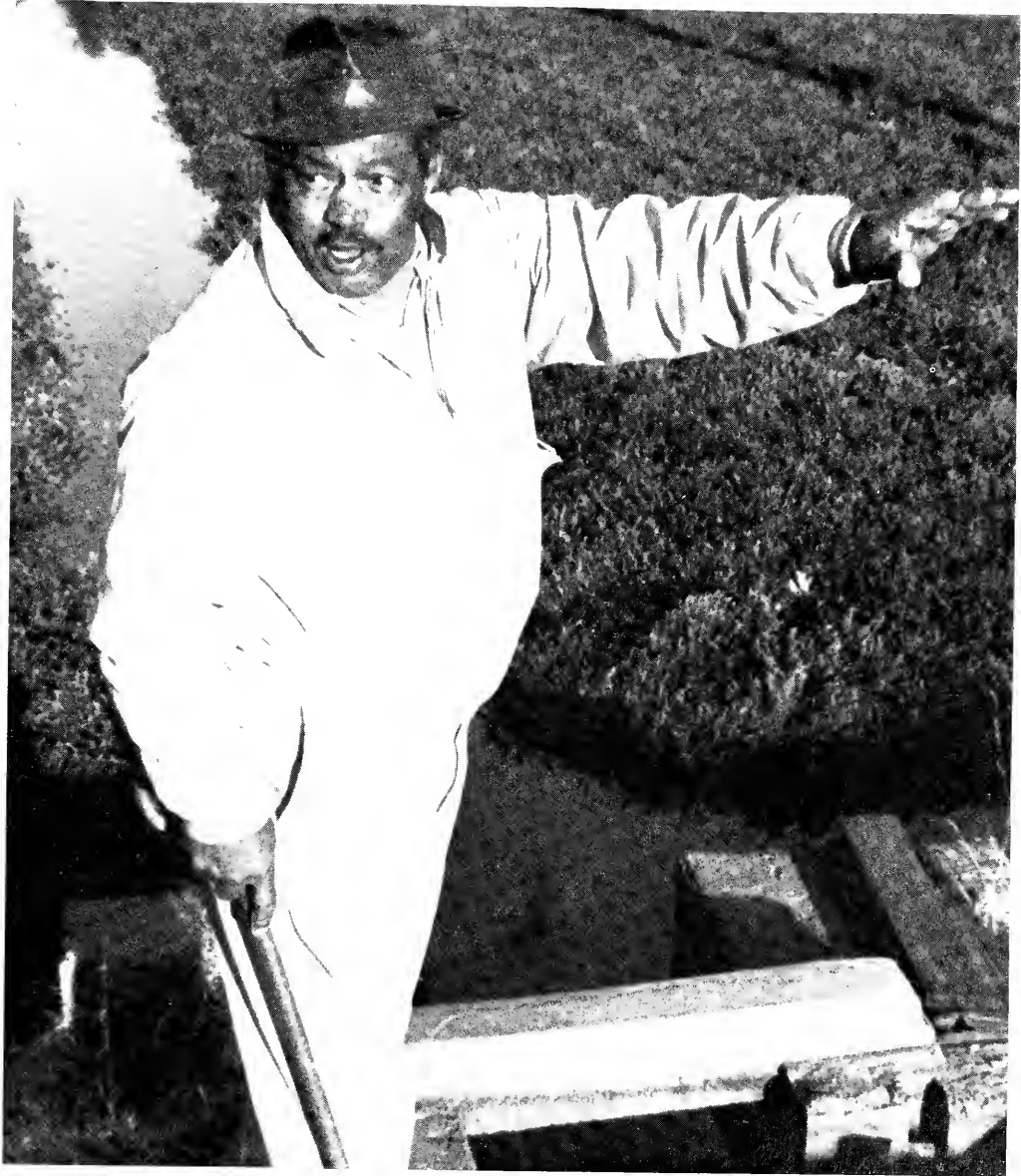


# CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

Vol. 45, No. 4

April 1981



**Building a wiper . . .3**

★★★★★

**Living on 10 acres . . .6**

Library UMass  
Serials Section  
Amherst MA 01002

# Evital<sup>®</sup> controls nutgrass and cutgrass. And 14 more troublesome weeds in cranberries.

Evital doesn't fall short in effective weed control. It stops **16** profit-robbing weeds, including tough ones like smoke grass, spike rush, and barnyard grass.

- **evital** stops tough weeds in cranberries better than any other granular herbicide.
- **evital** is a sand-core granule making it an outstanding aerial formulation; easy ground application as well.
- **evital** is the No. 1 choice to apply over newly-sanded bogs to prevent weed emergence.

It's the broad spectrum weed-control herbicide that cranberry growers depend on year after year.

(Use herbicides effectively. Read and follow label directions carefully.)

  
**GRANULAR HERBICIDE FOR CRANBERRIES**



Sandoz, Inc. Crop Protection/480 Camino Del Rio South/San Diego, CA 92108

Copyright, 1980, Sandoz, Inc.

## Device adapted for bogs

# Wipe away your weeds

By JOHN S. NORTON

(EDITOR'S NOTE: Stan, as

Norton's friends call him, constructed the weed wiper and carriage he describes below.

Norton, the country's only full time research engineer in cranberries, has been at the Massachusetts Cranberry Experiment Station since 1957. Several Massachusetts growers have built wipers similar to the one Norton describes.)

The rope-wick type weed wiper, developed by researchers at the University of Missouri and at the

USDA Research Unit at Stoneville, Miss., has been adapted for use in controlling tall weeds on cranberry bogs.

**THE APPLICATOR** assembly consists of a 3-inch diameter PVC pipe about 10 feet in length with a series of rope wicks inserted in holes in the side of the pipe. The pipe is capped on both ends and a removable filler plug is installed in the top of the pipe.

The wick material is soft woven, nylon rope 1/2-inch in diameter. Each piece of wicking is about 18 inches long and the two ends are inserted in holes in

the pipe about 8 inches apart. This leaves about 5 inches of wick dangling into the pipe at each hole.

Two parallel rows of wicks are installed along the length of the pipe. The holes in the two rows are staggered so that the wicks in one row will overlap the short spaces between the ends of adjacent wicks in the other row.

Rubber grommets are used to seal the space between the wicks and the PVC pipe. Electrical grommets with 1/2-inch holes are placed on the wicks. The holes in the pipe must be the correct size to accommodate the grommets.

After a grommet has been installed on each end of a wick, the wick is inserted into a pair of holes in the pipe and the grommets are clipped into the holes. This process is repeated for every pair of holes until the two rows of wicks have been installed.

If the installation process has been properly executed, there will only be capillary size spaces through which liquid can move. This will prevent leaks when the liquid is above the level of the holes.

**MOST OF THE** cranberry growers who have constructed the rope-wick weed wipers have  
(continued on page 12)

### MASSACHUSETTS GROWERS

Financial assistance is available for Scholarships and for Hospital and Medical care for Cranberry Growers, their Employees and the families of both when financial need can be shown. For information contact:

**URANN FOUNDATION**

P.O. Box 1788

Brockton MA 02403

Telephone 588-7744



Since 1933

Members of  
the SICPC

**Gage-Wiley & Co., Inc.**

**STOCKS & BONDS**

40 Court Street, Plymouth, Mass. 02361

617-746-3322 Call Toll Free in Mass 1-800-242-0263

### COVER PHOTO

**THE LATE** Domingo Fernandes conducted a successful 10 acre cranberry bog for many years. He was assisted in his endeavors by the Plymouth Conservation District and the Soil Conservation Service. Story on page 6.



# IT TAKES JUST ONE HERBICIDE, USED ONCE A YEAR, TO GET TO THE ROOT OF YOUR WEED PROBLEMS.



CASORON® G-4 herbicide, by itself, controls more than 40 weeds, including ferns, rushes and sedges that can cut your cranberry yields. And CASORON gets them all with just one pre-season application.

CASORON strikes weeds where they're most vulnerable: at their roots. It stops even the hardiest perennials before they have a chance to rob precious nutrients from your crop.

Just apply CASORON granules to bogs in early spring and relax. CASORON goes to work immediately, to

kill problem weeds the first time around. And the following spring, it will save you expensive man-hours normally spent spraying or hand-weeding stragglers.

For more than a decade, cranberry growers have

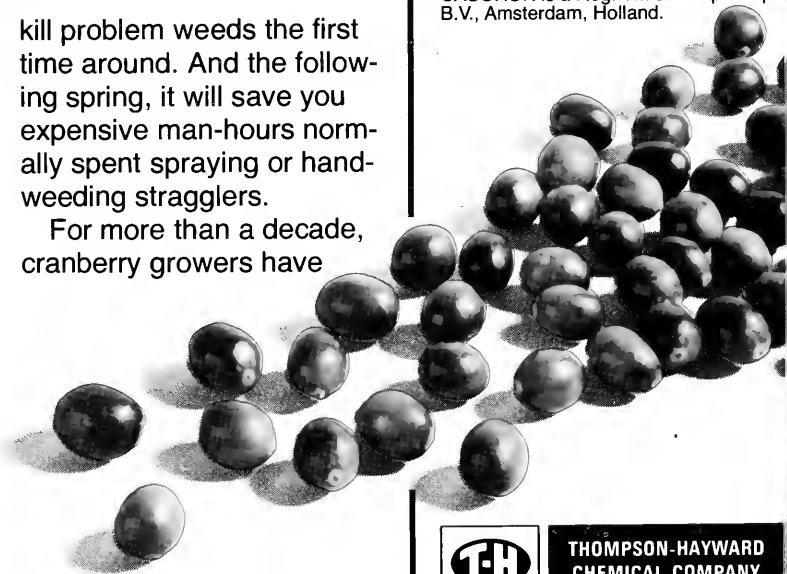
proved to themselves that CASORON gives the most effective control possible. Control that makes good economic sense.

Try it yourself. Get the once-a-year herbicide that puts an end to weed problems: CASORON herbicide granules.

## CASORON®

### G-4 HERBICIDE

CASORON is a Reg. TM of Philips-Duphar B.V., Amsterdam, Holland.



**THOMPSON-HAYWARD  
CHEMICAL COMPANY**

A NORTH AMERICAN PHILIPS COMPANY  
P.O. Box 2383 • Kansas City, Kansas 66110

# editorial



## USDA INCREASES FEES

USDA's Food Safety and Quality Service increased the fees it charges industry to inspect and grade fresh fruits and vegetables at destination markets recently, said Assistant Secretary of Agriculture Carol Tucker Foreman.

## Will antitrust be throttled?

When CRANBERRIES recently interviewed spokesmen for Ocean Spray and the Federal Trade Commission about the nine year old antitrust investigation of the cranberry cooperative, both sides acknowledged that Republican Administrations traditionally have been more vigorous about hounding monopolies.

So far, however, the Reagan Administration seems to be departing from that tradition.

Recently, the Office of Management and Budget recommended sharp reductions in the FTC's antitrust budget allocation. Also, the whole antitrust philosophy that had its birth in the 19th century is increasingly becoming the target of criticism by influential social thinkers on both the right and left. Others, of course, hotly defend strong enforcement of antitrust laws.

However the debate comes down during Reagan's term of office, here's hoping that either there is action in the Ocean Spray case or that it is dropped before very much more time has passed. After all, the case has been on hold for about nine years.

## CRANBERRIES

THE NATIONAL CRANBERRY  
MAGAZINE

—Our 45th Year of Publication—

VOLUME 45—NO. 4

April 1981

Send correspondence to:

P.O. Box 249  
Cobalt CT 06414

Phone: (203) 342-4730

Bob Taylor, Publisher/Editor

### ADVISORS, CORRESPONDENTS

**Massachusetts**—Dr. Chester E. Cross, Director, Massachusetts Cranberry Experiment Station, Irving Demoranville, Extension Cranberry Specialist, Massachusetts Cranberry Station; Michael Couture, East Wareham, Mass.; Carolyn Caldwell, Rochester, Mass.

**New Jersey**—Philip E. Marucci, Cranberry and Blueberry Specialist, Cranberry and Blueberry Laboratory, Chatsworth, N.J.; Elizabeth M. Carpenter, Chatsworth, N.J.; Mary E. Archibald, Collingswood, N.J.

**Nova Scotia**—I.V. Hall, botanist, Research Station, Kentville, N.S.

**Oregon**—Arthur Poole, Coos County Extension Agent, Coquille, Ore.

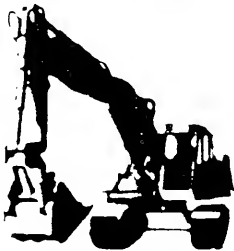
**Washington**—Azmi Y. Shawa, Horticulturist and Extension Agent in Horticulture, Coastal Wash. Res. and Ext. Unit, Long Beach, Wash.

**Wisconsin**—Tod D. Planer, Farm Management Agent, Wood County; Joan E. Humphrey, Friendship.

CRANBERRIES is published monthly by the Taylor Publishing Co., Wellwyn Drive, Portland CT 06480. Second class postage is paid at the Portland, Conn., Post Office. Price is \$8 a year, \$15 for two years, 80 cents a copy in the U.S.; \$9 a year in Canada; \$10 a year in all other countries. Copyright 1980 by Taylor Publishing.

ISSN: 0011-0787

## M. C. Howes



Specializing in  
Agricultural Construction

*Flumes*  
*Canals*  
*Land clearing*  
*Sanding*  
*Water holes*  
*Ditching*  
*Dikes*  
*Grading*

MERT HOWES  
295-5542

619 COUNTY ROAD  
W. WAREHAM, MASS.  
02576

## Cranberries and conservation

# Successful combination for Domingo Fernandes

Raising a family on the income from 10 acres of cranberry bog may sound unlikely in today's economy, but Domingo Fernandes, a Carver, Mass., grower, spent his life doing just that. Before he died of cancer last year at the age of 58, Fernandes discussed his effort to create a model cranberry farm.

"It's been a family operation from the start," explained Fernandes. "We were fortunate to have ambitious children who are interested in the cranberry bogs. We have had valuable help from our Plymouth Conservation District and the USDA Soil Conservation Service (SCS). And we've always had a desire to grow

good cranberries. I guess it all adds up to a successful family farm operation."

**FERNANDES' FATHER** migrated to this country in 1898 from the Cape Verde Islands off the coast of West Africa. He made his living by picking cranberries until 1920, when he bought his own bog and went into business for himself. Fernandes, working in his father's bog, learned the business at an early age. Fernandes' wife, Albertina, also came from the same cranberry-farming background. In fact, Fernandes bragged about the fact that Albertina once broke the record for hand-scooping cranberries—101 bushels in one day.

After serving in the Armed

Forces during World War II, Fernandes came back to Plymouth County and the cranberry business. With money he had saved, he managed to build a small bog. From that start he was able to invest in additional acreage until he had a total of 10 acres which, according to Fernandes, is one of the smaller bog operations in eastern Massachusetts.

Very knowledgeable about his crop, Fernandes liked to point out that the berries actually grew wild in the area long before the Pilgrims landed at nearby Plymouth. Today, with approximately 11,000 acres under cultivation, Massachusetts produces nearly 50 percent of all cranberries grown in the U.S. Fernandes sold his "Early Black" berries to the nearby Ocean Spray farmers' cooperative, of which he was a member.

Fernandes dry harvested because of his limited water supply in the fall when many cranberries are picked by the "wet" method.

**FERNANDES BECAME** a cooperator with the Plymouth Conservation District in 1957. This entitled him to obtain technical planning assistance from the Soil Conservation Service as well as other agricultural agencies cooperating with the district.

In an effort to increase his cranberry production, Fernandes asked SCS to design a new water-control system for his two bogs. The system recommended called for reshaping and improving the dikes and installing new flumes that would give Fernandes better control of water levels across the bog during mid-winter flooding.

Office  
295-2222

K. Beaton  
295-2207

## BEATON'S CRANBERRY GROWERS SERVICE



D. Beaton  
888-1288

WAREHAM, MASS.

F. Beaton  
947-3601

Specializing in

- DITCHING
- NETTING
- SANDING
- WEED CLIPPING
- COMPLETE BOG MANAGEMENT
- HARVESTING (Wet and Dry)

Also

Complete line of portable Crisafulli Pumps 2" - 16"  
Plastic netting for suction boxes

"The water control system worked fine for us until 1961 when we had a serious freeze late in May," recalled Fernandes. "We had drained the bogs to get the spring growth started when the freeze hit. We didn't have water so we lost our entire crop that year."

Not long after that Fernandes asked SCS for help in designing a

sprinkler irrigation system for his bogs. The irrigation system would provide the needed protection from quick temperature drops. The irrigation system is also used to keep the plants from drying out during summer droughts.

Using designs provided by SCS, Fernandes dug two one-quarter acre spring-fed ponds next to his bogs. These, plus two pumps (one gas-powered, one electric), sent irrigation water through a series of above ground aluminum pipes and sprinkler heads to the cranberries when needed. By today's more modern standards, Fernandes' irrigation system was old-fashioned, but it served the purpose very well, he recalled.

LAST SPRING during his illness, Fernandes rushed to complete installation of all the elements of the modern water control system which SCS had designed for his bog. The older irrigation system was replaced with a modern plastic underground pipe system.

In one bog, 3,600 feet of 4-inch mains and 1-inch laterals now feed

water to 56 sprinkler heads. All were installed under the cranberry plants and are ready to use at a moment's notice.

A second system was installed in his nearby bog to complete a modern irrigation system. It gave Fernandes 5,800 feet of plastic irrigation lines feeding water when needed to just over 100 sprinkler heads.

With the touch of a button, the

## Mike's Portable Welding

Cranberry Equipment  
Built and Repaired

*Clippers, Flumes  
and Wheel-offs,  
all types of equipment*

FREE ESTIMATE

(617) 748-0014

(617) 748-1415

(617) 748-0031

## CRANBERRY GROWERS REALTY

Listings of buyers and  
sellers welcomed on cran-  
berry acreage and upland.

Appraisals

DOUGLAS R. BEATON

E. Sandwich, Mass.  
02537

(617) 888-1288

A MOST COMPLETE INVENTORY OF  
IRRIGATION ACCESSORIES



# LARCHMONT

ENGINEERING & IRRIGATION, INC.

P.O. Box 66, 11 Larchmont Lane, Lexington, MA 02173 (617) 862-2550

IRRIGATION EQUIPMENT DESIGNED ESPECIALLY  
FOR THE CRANBERRY INDUSTRY

FOR EXAMPLE:

*Gorman-Rupp Self Priming Electric Sprinkler Pumps  
Proven Quick Couple Riser  
Ingersoll-Rand Water Harvest Pumps  
Aluminum Insert Coupling For 4" Poly Pipe*

Contact:

Larchmont Engineering  
Phil Tropeano, President  
(617) 862-2550 (Call Collect)



Contact:

Bill Stearns, Plymouth, Mass.  
(617) 746-6048  
(617) 746-2610



new system can deliver water during summer droughts or water to protect cranberry plants from sub-freezing temperatures. It also delivers fertilizer and insecticides to the cranberries through the irrigation system.

**FERNANDES' ABILITY** to produce quality cranberries was recognized as far back as 1965 when he won the Plymouth Conservation District's "Farmer of the Year" award.

Commenting on his talent for growing quality berries, Fernandes said: "I learned about growing

cranberries first from my father and from fellow cranberry growers. With children who enjoyed working and a wife who has been very helpful, we've managed to make a fairly good living from our 10-acre bog. Being independent and working for ourselves really helped us toward success."

Fernandes had reason to be proud of his success in growing cranberries and of the family which, working together, helped make that success possible. He and Albertina have raised eight children, five of their own and three foster children.

The oldest son, Domingo Jr., until recently was associate executive of the Narragansett Council, Boy Scouts of America, in Providence. He has returned to manage the bogs and study for his master's degree. John teaches at Duxbury High School and helps part-time with the bog. Edward attends Columbia University Law School, and Joseph, the youngest son, is at Dartmouth College. He took care of the berries when frost threatened last spring. Fernandes' daughter, Terri, is a high school student and will be entering college this fall.

It appears obvious that the Fernandes' bog has been and will continue to be a family operation, an operation which reflects the feeling of caring for the land and for all living things that Domingo Fernandes exemplified. In Albertina Fernandes' words: "We will go on from here."

#### **FARM EXPORTS CONTINUE TO SOAR**

For the 11th straight year, farm exports cracked a record in 1980. Exports amounted to \$40.5 billion.

**Bog construction**

**Vine setting**

**Flumes and flume work**

**Bog sand**



**Nemasket  
Construction  
Co., Inc.**  
**275 Wareham St.,  
Middleboro MA 02346**  
**(617) 947-1723**

## **DIRECTORY for Cranberry Growers**

**The  
CHARLES W. HARRIS  
Company**

451 Old Somerset Avenue  
North Dighton, Mass.  
Phone 824-5607

**AMES**  
*Irrigation Systems*  
**RAIN BIRD**  
*Sprinklers*  
**HALE**  
*Pumps*

**Highest Quality Products  
with Satisfaction Guaranteed**

# But drought causes worry

By CAROLYN CALDWELL

"The vines give no evidence of having been winterkilled this winter," Dr. Chester E. Cross, director of the Massachusetts Cranberry Experiment Station, told growers at a recent weather seminar.

WHILE THERE APPEARS to have been no winterkilling conditions up until the end of February, the prolonged drought in southeastern Massachusetts will continue to be the biggest worry of the year for cranberry growers. All difficult management decisions for the coming season will be based on the availability of water.

Area precipitation in the 13 month period from January 1980 to January 1981 was 15½ inches deficient—about 30 percent—below the 30 year average, according to Prof. Irving E. Demoranville, cranberry extension specialist at the station.

January's 25 inches of snow amounted to only ½ inches of moisture—2½ inches below normal.

"Because of the extreme cold and relative humidity, there was very little moisture content in the snow," said Demoranville, who monitors the weather for Massachusetts growers. "Our water table is still going down. That's why our ponds are not recovering."

"We had the third lightest precipitation but the third highest snowfall in January," Cross said. "The snow protected the exposed vines so they did not get winterkill but it cut off the light, causing a 'Wisconsin effect.'"

At the beginning of January, Demoranville issued a warning to growers that "persistent snow on the flooded bogs is reducing oxygen levels in the water under the ice."

At that time the Massachusetts Cranberry Station recommended that "growers keep their floods, conserve all water possible and take a chance on oxygen deficiency injury except

where abundant water (in spite of ice) makes re-flooding easy."

"This is the type of winter where you have to make your own decision," said Demoranville.

Massachusetts growers took advantage of the early cold snap to catch up on sanding they missed during last year's mild winter. In January there was an unusually good four weeks of heavy ice. Growers had to roll down or plow off powdery snow after the storms before getting their sanders out on the ice.

February brought rain and a warming trend that melted ice. Water quickly disappeared from bogs with no clay bottom. In many areas, growers were uncertain how they would get water back on if protection was needed again.

"Water is our biggest problem," said Robert Hiller of Hiller Cranberry Co. in Rochester, Mass. "In 20 out of 200 acres, we can't get water on.

Luckily, we've had snow cover to protect them."

"As of Christmas, all but 50 to 60 of our 400 acres were under water," said John C. Decas of Decas Cranberry Co.

GROWER KARL J. ASHLEY said the swamps his Rochester bogs draw water from are "4 feet low." During the cold January weather, he went to work to dig out a pond but was unable to get past the mud to the sandy bottom.

By Feb. 25, southeastern Massachusetts received slightly above average precipitation, which only made up 2/3 inch of the 15½ inch deficiency, according to Demoranville.

"We're still a long way from home," Demoranville said. "The way these weather patterns are, the currents and jet streams don't change very rapidly."

Growers are hoping spring rains will make up the difference before water for frost protection is needed.

"It's a long way from being back to normal," said William M. Atwood of A.D. Makepeace Co., the area's largest grower. "The water is about the same as last year. I would say there will be as much water for the

(continued on page 16)

# DEVIRINOL® 10-G

## AVAILABLE AT THESE STORES:

Robert Alberghini  
Carver, MA  
617-866-4429

New Bedford Agway  
New Bedford, MA  
617-997-0093

Cape Agricultural Supply Inc.  
Sandwich, MA  
617-888-0044

Devirinol is a registered trademark of Stauffer Chemical Co.

Pilgrim Agricultural Supply Inc.  
Plymouth, MA  
617-746-0970

Merle Stetson  
E. Taunton, MA  
617-822-6748





# It's 1981

This year *change* your 1960 style fertilizer program to a more *profitable* program using a cranberry fertilizer with IBDU<sup>®</sup> as the primary source of nitrogen.

Come in and discuss:      Fertilizer Weeds  
   Soil Testing  
   Helicopter Application

Watch your profits increase in the 80's

with

**IBDU<sup>®</sup>**



*Your Year-Round Service Center*

CRANBERRY HIGHWAY\*WEST WAREHAM, MASSACHUSETTS 02576\* (617) 295-1553

Nutgrass



Rice cutgrass



# Control nutgrass and cutgrass without harming your vines. Use Devrinol.<sup>®</sup>

Selective Herbicide

**Massachusetts cranberry growers**, you can control both nutgrass and rice cutgrass without harming your vines.

Use Devrinol<sup>®</sup> herbicide. Devrinol gives excellent control of these tough weeds with good crop tolerance.

Apply Devrinol 10-G in the spring, before weeds begin to grow. Or, you can apply Devrinol in the fall, after harvest.

Control nutgrass and cutgrass without harming your vines. See your Stauffer supplier for Devrinol. For use in Massachusetts only. Always follow label directions carefully. Stauffer Chemical Company, Agricultural Chemical Division, Westport, Connecticut 06880.

**Stauffer**  
CHEMICALS

# Devrinol<sup>®</sup>



## WIPE AWAY . . .

(continued from page 3)

constructed them as described above. The one built at the Cranberry Experiment Station, however, had one additional feature that we feel enhances its effectiveness. That was the addition of a sheet of terrycloth wrapped around the boom so that there would be more area of wick or herbicide saturated material to make contact with the weeds.

The original weed wipers as developed at Stoneville, Miss., were mounted on tractors for use in row crops. This is not a practical mode of transportation of the weed wiper on cranberries, because the period when it is effective is in the middle of the growing season and the damage to the crop would be too great.

This has not proved to be a deterrent to the growers. Some

have attached handles to each end of the wiper boom and have had the booms carried by hand at the proper height to strike the weeds and still stay above the cranberry vines. Others have copied a carriage developed at the Massachusetts Cranberry Experiment Station.

**THE CRANBERRY** Station wiper carriage is a sulky-like device, using an aluminum framework mounted on a pair of 20-inch bicycle wheels. This is shown in the figures on page 14.

The boom is suspended from the frame, just to the rear of the wheels, by a pair of cables. The cables are connected to a lever, which is mounted on the tongue, and the height of the boom is controlled by the lever.

Since the boom is suspended on cables, it is necessary to provide a means of preventing it from swinging. This is accomplished by a pair of rigid vertical members mounted behind

each wheel, between which the boom is confined.

In using the weed wiper, care must be exercised to prevent the dripping of herbicide onto the cranberry vines. One precaution that may be taken is the use of a leakproof trough, large enough to enclose the boom, suspended below the boom whenever it contains herbicide but is not in use.

If the weed wiper user elects to include the terrycloth wrap around the boom, it may be desirable to speed up the saturation of the terrycloth before each use by applying herbicide directly to the terrycloth by sprayer or bucket. When doing this, the safety trough should be in position to catch the surplus material.

## PARTS LIST FOR WEED WIPER CARRIAGE

1. Tongue, 1½ inch square aluminum tubing.
2. Stabilizing members, 1½ inch square aluminum tubing.
3. Mounting plates, 3/16 inch flat aluminum welded to each end of the stabilizing member.
4. Wheel fork mounts, 4½ inch by 4½ inch by ¼ inch steel plate, wheel forks welded underneath.
5. Wheel forks mounted 1¼ inch by 1¼ inch by 4 inch steel angle welded to the end of cross member.
6. Cross member, 2 inch steel channel iron.
7. Cross member 1¼ inch by 1¼ inch steel angle iron.
8. Handle.
9. 20 inch bicycle wheel.
10. Wheel forks 1 inch steel channel iron.
11. Swing guards, 1 inch channel iron.
12. Pulley to guide cable.
13. 210 inch cable.
14. Height adjustment.
15. Braces 1 inch steel channel.
16. Wiper boom.



## A Solid Investment

requires solid financing . . . and that's our specialty. Credit for equipment, land, buildings . . . all your financial needs. For Credit . . . Plus a full range of other finance related services, see your local Farm Credit representative.

P.O. Box 7 Taunton, Mass. 02780 Tel: (617) 824-7578  
Office: Located on Rt. 44, ¼ Mile West of Rt. 24

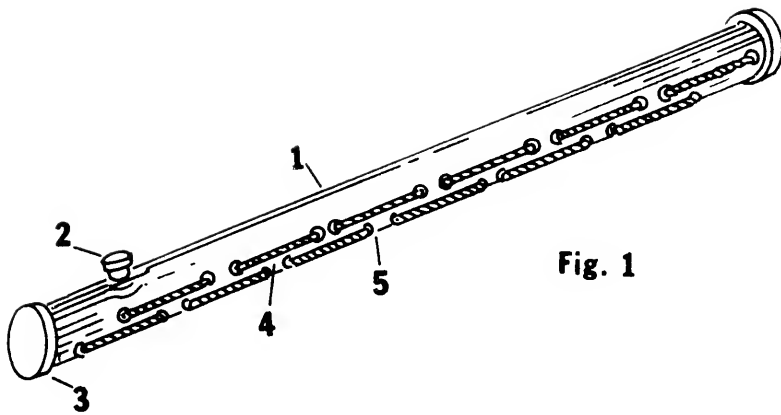


Fig. 1

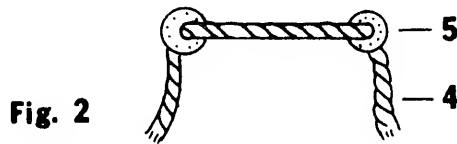


Fig. 2

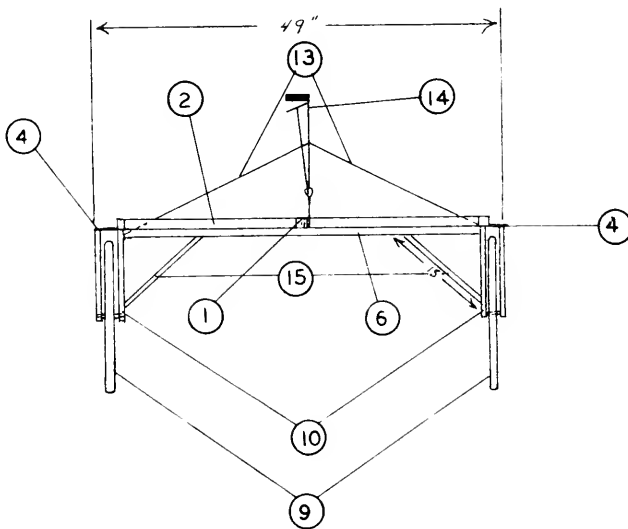
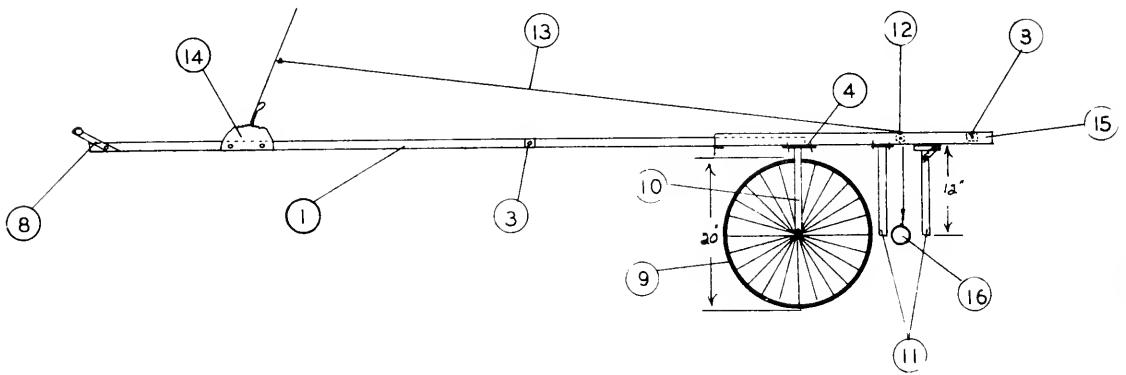
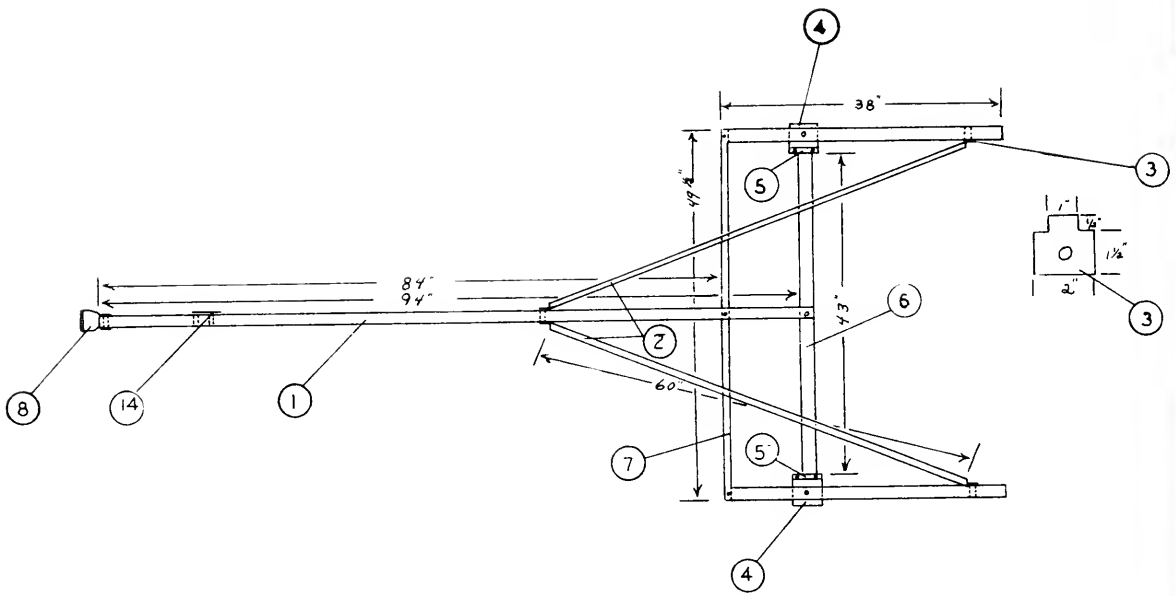
FIGURE 1. External view of wick applicator showing the components assembled. Materials are as follows: (1) PVC pipe; (2) capped fill spout; (3) end cap; (4) wicks; (5) rubber grommets. FIGURE 2. Expanded view of one wick showing details of construction.

# Foreman Wanted

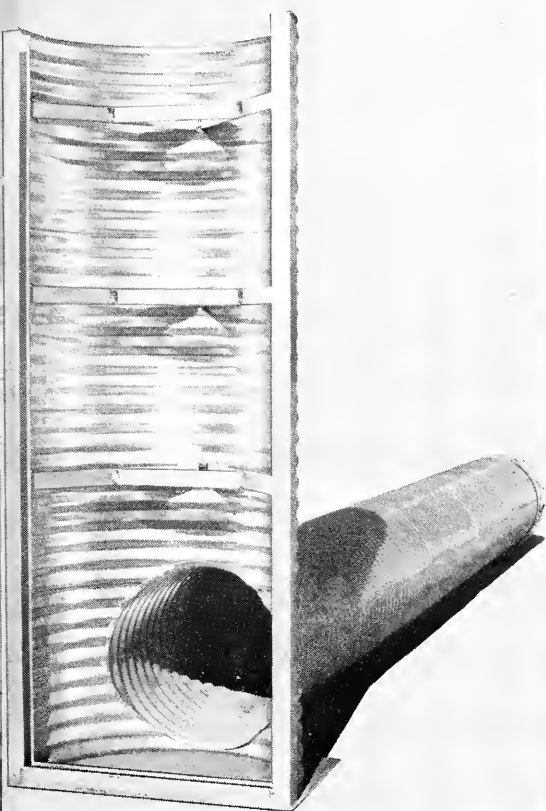
We are expanding our cranberry operation and have an opening for a cranberry bog foreman. Opportunity for advancement. Good pay, excellent benefits, including Blue Cross - Blue Shield and a retirement plan. Must have an interest in agriculture. Call for appointment and interview at (617) 293-3739 or 293-3720.

**United Cranberry Growers Associates Inc.**

HAWKS AVENUE, HANSON, MASS. 02341 (617) 293-3739 or 293-3720



FROM TOP TO BOTTOM: Top, side and rear views of weed wiper carriage.

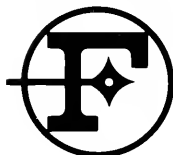


# Install the flow gates now that generations will rely on.

Felker flow gates are built to last, thanks to famous Felker welded construction, generously braced designs, and highest quality materials. Manufactured in aluminum only.

Standard sized for conduits from 15- to 48-inch diameters with riser widths from 24- to 72-inches, height as required. Single, double and triple log channel designs, other sizes available upon application. For virtually any size or water control application, Felker Brothers are flow gate specialists. **Send for free bulletin.**

**OUR  
STRENGTH  
IS METAL**



**FELKER BROTHERS CORPORATION**

**Marshfield, Wisconsin 54449**

PHONE 715-384-3121 TWX 510-370-1846 TELEX 29-3451

# weather watch

## MASSACHUSETTS

January was cold; in fact, record cold for us. We averaged a whopping 10.1 degrees a day below normal, breaking our record set in 1970. Maximum temperature was 45 degrees on the 27th and the minimum was -10 degrees on the 12th. The only warmer than average days were the 19th and 26th to 28th. Cooler than average periods occurred on the 3rd to 5th, 8th to 14th, 17th, 18th, 20th and 31st.

Precipitation stayed in the same old rut, totaling only 1.61 inches, which is 2.7 inches below normal. This was the driest since 1970 and the third driest in our records, surpassed only by 1955 and 1970. The greatest storm was 0.45 on the 7th and there were 13 days with measurable precipitation. Total snowfall was 25 inches, second greatest total in our records, with 8.5 inches in the 16th-17th as the largest storm. The temperatures were so cold that there just wasn't any appreciable moisture content in the snow.

February was a welcome relief from the weather of the past few months—it was warm and wet. The temperature averaged 4.4 degrees a day above normal, the first normal month since September. This was the fourth warmest in our records and the warmest since the record of 1960. Maximum temperature was 59 degrees on the 11th and 21st and the minimum was 1 degree on the 1st. Warmer than average periods were the 2nd, 11th, 12th, 16th through 21st, 23rd to 25th

## BUT DROUGHT . . .

(continued from page 9)

spring as last year. We're planning on a lot of moisture by May."

Decas, who is president of the Cape Cod Cranberry Growers Assn., is optimistic about winter conditions but anxious about the spring.

"My predicition is that we are going to survive the winter in very good shape," he said in January. "But I am worried about irrigation for the coming season."

and 27-28. The only cooler than average days were the 3rd to 6th and 13th.

Precipitation totaled 6.95 inches or 3.4 inches above normal, the first above normal month since October. This was the second wettest February in our records, surpassed only by the 1969 record. There were 15 days with measurable precipitation, with the greatest storm of 4.02 inches on the 24th to 27th. We are about 0.7 inch above normal for the two month periods and 5.4 inches more than in 1980.

There was only 1.8 inches of snow, which is far below normal.

I.E.D.

## Read CRANBERRIES

## NEW JERSEY

The seesaw pattern of weather in the cranberry region of New Jersey is well illustrated in the fluctuating temperatures during January and February. An unusually cold period was followed by an unusual warm spell.

January was the fourth coldest first month of the year in the 51 year weather recording history at Pemberton. The average temperature of 25.3 degrees F is 7.4 degrees below normal. One of the most severe spells of weather ever experienced in southern New Jersey occurred between Jan. 9 and 14. During this period, the daytime temperatures were constantly well below freezing, while

## BARK RIVER *Culvert and Equipment Co.*

(Wisconsin-Michigan Growers)

ALUMINUM HEADGATES FABRICATED  
TO YOUR SPECIFICATIONS  
HAND WHEEL OPERATED GATES  
ALUMINUM CORRUGATED PIPE  
INTERNATIONAL POWER UNITS  
INTERNATIONAL CRAWLER TRACTORS  
WARNER & SWASEY EXCAVATORS  
WALDON LOADERS AND USED EQUIPMENT

Eau Claire, Wis.  
715-835-5157  
Madison, Wis.  
608-222-4151

Escanaba, Mich.  
906-786-6920  
Green Bay, Wis.  
414-435 6676

Milwaukee, Wis.  
414-461-5440  
Ironwood, Mich.  
906-932-0222



**INTERNATIONAL CONSTRUCTION EQUIPMENT**

INTERNATIONAL HARVESTER COMPANY

## Niemi Electric Co.

ROBERT NIEMI

ELECTRICAL CONTRACTORS

HEAT, LIGHT and POWER WIRING

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL

TEL. 295-1880

Robert Niemi Pinchurst Dr.

Warcham, Mass.



at night thermometer readings were near or below zero. There were four below zero recordings (-8, -7, -10 and -6) and the average temperature for the six day period was only 11.3 degrees F. An average of less than one (0.68) below zero day has occurred in the month of January since 1930.

In February, the weather abruptly changed to almost balmy conditions. The average temperature for the month was 38.5 degrees F, or 5 degrees above normal, and the sixth warmest February at the Pemberton station. A very cold first half of the month was overbalanced by extremely warm weather during the latter half. From the 16th to the end of the month, daily maximums were constantly in the 50 and 60 degree range with a record breaking 71 degrees F on the 18th. The average temperature during this 13 day period was 47.7 degrees F, which is actually 3 degrees warmer than the average temperature for March.

Precipitation during January was only 0.72 inch, the second driest ever for this month and 1.49 inches below normal. This marks the eighth out of the nine months since May that rainfall has been deficient. During this period, a total of 20.67 inches or 14.28 inches below normal precipitation had occurred. Significant restoration of water lost in the drought occurred during February when 3.94 inches, or .97 above normal rain fell at Pemberton. At Chatsworth, closer to the main cranberry growing area, the amount of rain that fell was about 5 inches. Most growers in this area now report that reservoirs are back to near capacity. The fact that moderate drought conditions could be relieved by one month of moderately abundant rainfall is one of the remarkable attributes of the Pine Barrens. In this region, almost all of the precipitation is absorbed by the earth with negligible runoff. In North Jersey and other drought stricken areas of the East, much larger proportions of the rain is lost in runoff.

The effect of the severe January weather on blueberries is of concern to blueberry growers. A mitigating circumstance was the fact that there was snow cover throughout the extreme cold spell. Fruit bud samples

taken from representative cold blueberry fields show only 5 to 8 percent damage of embryo flowers of the Weymouth, which is one of the varieties most susceptible to winter killing. Very little winter killed wood has been found, but this type of damage does not become fully evident until warm weather in the spring.

P.E.M.

## NOVA SCOTIA

In contrast to the early winter, the month of February was one of the nicest on record. Most of our snow disappeared and we crossed our fingers lest we have a real cold spell which could be injurious to flower buds.

I.V.H.

## WASHINGTON

The year 1980 came to an end for Washington weather patterns providing, to date, a mild winter.

The precipitation for December totaled 12.19 inches, bringing the year's total to 74.29 inches. This is five years in a row that the precipitation total has been from 17.02 to 6.02 inches below the normal of 85.30. The trend is very obvious in the surrounding area.

The January precipitation totaled only 3.94 inches. The average for January is 12.90 inches. February precipitation totaled 9.59 inches, just above normal, with the greatest rainfall of 1.90 inches coming on the 18th.

A mild winter has brought early action in all plantings, early garden

bulbs, shrubs, and also cranberry buds. January brought 60 degrees or above on seven days and then a cooling period. The high of 66 degrees came for February on the 22nd and 23rd and a low of 25 degrees on the 5th-7th. The bog low was 24 degrees on the 5th.  
A.Y.S.

## WISCONSIN

Temperatures in Wisconsin during January averaged 2 to 4 degrees above normal.

February began with very cold temperatures. Some light to moderate snowfalls occurred during the first week.

-Wisconsin Agriculture  
Reporting Service



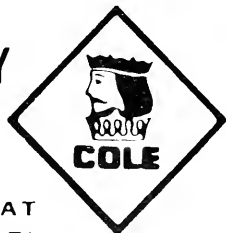
## Massachusetts

By IRVING DEMORANVILLE

Members of the Cape Cod Cranberry Growers Assn. who have had a change in their telephone number since the end of the frost season should inform the Cranberry Station before April 15.

The 1981 Cranberry Weed and Insect charts are being printed. There will not be a new fertilizer chart this year, so hold on to your old one.

## WISCONSIN CRANBERRY HEADQUARTERS FOR



EVITAL • SOLO • DIQUAT  
2-4-D • DOWPON • ETHREL  
SEVIN • PARATHION • GUTHION • DIAZINON  
KOCIDE • DIFOLITAN • FERBAM  
COPPER SULFATE • PRINCEP

## Cole Chemical Supply

DIVISION OF *Hopkins* AGRICULTURAL CHEMICAL CO  
P.O. BOX 7211, MADISON, WISCONSIN 53707  
608-221-1581



# Water proposals challenge growers

By ELIZABETH G. CARPENTER

Many New Jersey growers undoubtedly consider the threat posed by the cranberry fruitworm or *Sporonema*-caused rot less ominous than five pieces of legislation intended to regulate water use in the state.

**THIS BECAME** clear at the recent 111th annual winter meeting of the American Cranberry Growers Assn. (ACGA) held at the New Hedger House in Chatsworth.

Stephen Lee III, ACGA representative on environmental matters, said the five bills would have a devastating impact on New Jersey's cranberry industry if enacted. In particular, he said, Senate Bill 1611 "puts state government between water and the grower."

The bill would grant the Department of Environmental Protection "the power to manage the water supply by adopting a uniform water diversification permit system and fee schedule, a monitoring, inspection and enforcement program," he explained.

The bill guarantees that a grower could find himself immersed in a never ending cycle of paperwork, he added.

Pointing out section 13b of the bill, he declared that the state "has a tremendous grab on for power." The section, he said, authorizes the DEP to monitor diversions, impose conditions on permits, refrain from granting new permits and "order the transfer of water from system to system, whether in public or private ownership, without notice or hearing."

Lee claimed the state would like to do away with "the old Water Policy and Supply Council," on which a cranberry grower has always sat.

**NAMED AS OFFICERS** for 1981-82 were: Fred Mahler, president; Mrs. Ada Simons, vice president; Paul Eck, treasurer; Phil Marucci, secretary, and Ed Lipman, delegate to the agricultural convention.

**PETER FUREY**, director of the Coalition to Save Agriculture in New Jersey, said Gov. Brendan Byrne "has

attached himself to the legacy of Pinelands Preservation."

Updating ACGA members on the Coalition's legal efforts related to the Pineland's Management Plan, he said: "The Coalition is critical of uncertainties the plan has brought to growers. One of the key issues is compensation as it relates to transfer of development rights (TDR)."

To date, TDR has been a much discussed but little utilized concept that has not inspired confidence in the agricultural community.

To further add to the confusion, Furey said, it is understood that the state attorney general's office is studying whether the Pinelands Commission has the authority to handle development credits, although the federal government approved the state's plan on Jan. 14.

"The issues involved," he said, "could turn into a full-fledged constitutional fight."

**ROBERT BRUCH**, agricultural economist with the state Department of Agriculture's Division of Rural Resources, reported on the long term leasing of state owned land for agricultural use. Bruch, who is responsible for helping cut bureaucratic red tape for interested growers, introduced his part time assistant, Betsy Carpenter of Chatsworth.

Bruch said; "We are willing to assist any farmer wanting to lease state land. However, part of the job is his. He must tell us which parcels of land he wants."

Once interest is expressed in state land, he said, bidding will occur. Selection of a grower will be based on his proximity to the parcel of state land, his general management concept and his proposed capital improvements.

A 25 year lease can be arranged for state land on which cranberries are grown.

**EDWARD V. LIPMAN**, Rutgers University trustee and ACGA delegate to the N.J. Agricultural Convention, said farmers at the convention let speaker William Bradley, U.S. senator, know they want insurance of their right to farm, no state interference with their water supply, reimbursement in money instead of ratables in communities where growth has been restricted by legislation. Also, he said, Pine Barrens land owners informed Bradley that they want reimbursement for acreage they feel has been confiscated by legislation.

Addressing overregulation and the need to preserve the right to farm, Lipman declared that "the

Department of Environmental Protection expects to own all of New Jersey."

Lipman, a former manager of Ocean Spray, said the cranberry industry is in excellent condition.

The 1980 payment, he said, was more than \$31.70 a barrel.

"We're doing this on commodities no one had heard of 25 years ago," he said. "Grower dedication is responsible for this."

**MIKE FLINT**, marketing analyst, N.J. Crop Reporting Service, reminded growers of his August 1980 prediction in which he said, "If we get rain, we could have a good cranberry crop."

"Unfortunately," he continued, "New Jersey didn't get the rain. Therefore, 1980 was the year it paid to have irrigation."

Flint reported New Jersey's 1980 cranberry production totaled 245,000 bbls., down 3 percent from the 1979 harvest. Last year, 2,900 acres were harvested in New Jersey, 100 less than in 1979. The year's yield per acre increased 0.2 percent to 84.5 bbls. per acre.

Total acreage harvested in the U.S. during the 1970's increased just 6 percent, Flint said. However, production rose 32 percent in the same time period, "due to an increase in yield and smaller harvest losses."

Price per barrel in the U.S. has risen from \$10.70 in 1970 to \$26.70 in 1979. This represents an increase of 150 percent.

However, Flint explained, "prices haven't increased as sharply as the inflation rate."

**MIKE CEPONIS** of the USDA and Rutgers University reported on his studies of the effect of water dwell time on cranberries, a matter of serious concern to growers because water harvested berries don't have good shelf life.

Ceponis, who experimented with Early Blacks, noted that "hand picked berries showed less evidence of decay than water harvested berries, possibly because they suffered less harvest related damage."

Although cranberries with good color did not break down as quickly as berries with poor color, he added, there was a sharp increase in physiological breakdown for all water harvested berries.

In the future, Ceponis said, he will test other varieties.

He also would like to obtain a water harvester from Wisconsin to find out if a differently designed machine causes less harvest damage.

**DR. ERIC G. STONE** of the USDA who is stationed at the Rutgers Cranberry and Blueberry Research Center, reported on the pH, percent soluble solids and titratable acids four

in a selection of cranberry varieties from New Jersey, Wisconsin and Massachusetts during 1978 and 79.

The overall pH for cranberry varieties tested for the two year period mostly ranged between 2.4 and 2.8. Of all the berries tested, New Jersey's 1979 Cropper had the lowest pH, 2.3, and New Jersey's 1979 Early Red had the highest, 3.0.

Most varieties tested fell between 3.5 and 5.3 percent in soluble solids. Hollister, a 1979 Massachusetts variety, had the lowest percentage, 3.0 percent. Early Black-open pollinated, a 1978 Wisconsin selection, had the highest percentage, 7.4 percent.

Stone said that "the titratable acids test is a good measure of a variety's tartness." The least acidic variety was Wisconsin's 1978 Early Black-open pollinated and the most acidic was Wisconsin's 1978 Bain 1 selection.

#### DR. ALLAN W. STRETCH

of the USDA and research center reported the results of his study of the effects of fungicides on cranberry fruit rot, yield and color. The fungicides were Ferbam, Dithane M-45, Difolatan and Bravo.

Tests, said Stretch, showed that Spononema was most effectively controlled by Difolatan. Dithane M-45 and Difolatan did a good job in controlling Physalospora, he added.

Guignardia was best controlled by Bravo. Penicillium was most efficiently controlled by Dithane M-45. Ceuthospora, a principle cause of Black Rot, was best controlled by Bravo.

The best crop yields in barrels per acre occurred with the use of Dithane M-45, Difolatan and Bravo, reported Stretch.

Stretch found Bravo "quite close in its effect to Difolatan and Dithane M-45." He said its cost may be more reasonable than Difolatan's. He said he would like to get clearance for Bravo's use by New Jersey growers.

**PHILIP E. MARUCCI**, research professor in entomology and extension specialist in cranberry and blueberry culture at the center, gave a timely presentation, in light of legislative efforts to control water use.

Records kept at Pemberton, N.J., over 50 years—1929-1979—substantiate the position that the 1980 state water shortage, given much media attention, may be short-lived, he said. Marucci added that he is "optimistic over the years this problem will straighten out."

Marucci said he obtained from Walter Fort, New Jersey fieldman for the Cranberry Marketing Committee, a list of the six New Jersey bogs with the highest

yields. Examination of soil from these bogs revealed that three were mucky, two were very sandy and one was moderately mucky. Barrels per acre ranged from 143 to 200.

The findings, he said, indicate that in New Jersey soil type is not nearly so important as a quality water source coupled with good cultural practices. To illustrate this conclusion, Marucci recalled that the late Anthony R. DeMarco was able to carve successful bogs out of savannas.

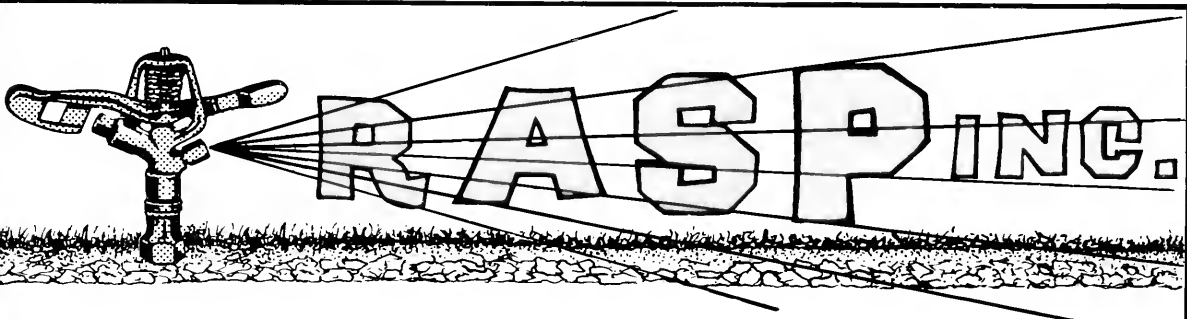
Marucci said he anticipated that growers in New Jersey may have to go totally to water sprinkling.

"You need less water when you use water sprinkling," he explained.

May 10 has been the traditional date for drawing water from New Jersey bogs. However, based on seven years of testing from 1974 to 80, Marucci said, he recommends that water be drawn earlier—from March 15-April 1.

He said: "For everything you do in farming, you have to have some tradeoff."

Early drawing, he explained, brings greater yields but also brings more insects. The former advantage outweighs the latter, he added, because insects can be controlled.



**AUTHORIZED AGWAY REPRESENTATIVE**

**LICENSED SPRAYING OF PESTICIDES (Seasonal)**

**WITH A COMPLETE LINE OF:**

**CRANBERRY INSECTICIDES • FUNGICIDES  
HERBICIDES • MITICIDES • and FERTILIZERS  
IN STOCK!**

•

**ROBERT A. ALBERGHINI – SPRAYING  
RFD 5 PLYMOUTH STREET, CARVER, MASS. 02330**

**TELEPHONE: 866-4429**

**For further information, call evenings after 5:30**

**AGWAY**

**AGWAY**



# IN EVERY INDUSTRY THERE IS A NAME FOR QUALITY



OCEAN SPRAY CRANBERRIES, INC., PLYMOUTH, MASS. 02360

AN EQUAL OPPORTUNITY EMPLOYER



# CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

Volume 45, No. 5

May 1981

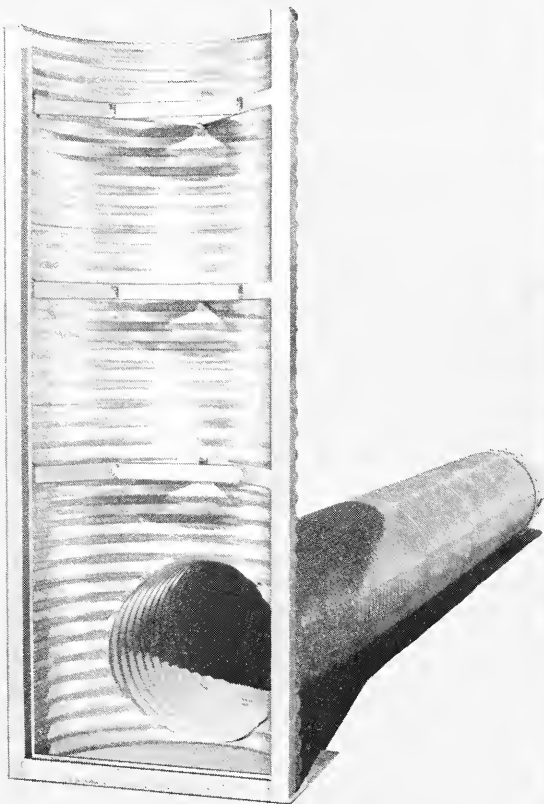


**Botswana to bog . . . 3**

★★★★★

**How much salt? . . . 6**

Library UMass  
Serials Section  
Amherst MA 01002

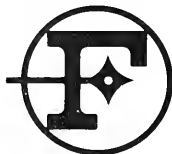


## Install the flow gates now that generations will rely on.

Felker flow gates are built to last, thanks to famous Felker welded construction, generously braced designs, and highest quality materials. Manufactured in aluminum only.

Standard sized for conduits from 15- to 48-inch diameters with riser widths from 24- to 72-inches, height as required. Single, double and triple log channel designs, other sizes available upon application. For virtually any size or water control application, Felker Brothers are flow gate specialists. **Send for free bulletin.**

OUR  
STRENGTH  
IS METAL



**FELKER BROTHERS CORPORATION**

Marshfield, Wisconsin 54449

PHONE 715-384-3121 TWX 510-370-1846 TELEX 29-3451

## Tsetse fly to fruitworm

# Bog reminiscent of Okavango Swamp

By **CAROLYN CALDWELL**

If someone had told me three years ago that I would be a cranberry grower today, I wouldn't have believed it.

At that time I was completing a 36 month research assignment as a United Nations volunteer in one of Africa's most isolated regions, the Okavango Swamps of Botswana.

As part of an international team of biologists, my job was

to monitor the effects of Thiodan (Endosulphan) used in tsetse fly control. It was an exciting three years, doing things like finding my way by boat through a maze



**COVER PHOTO**  
THE AUTHOR of the article on this page, her husband, and their daughter, "Mpho," as the villagers in Botswana called her.



**CAROLYN CALDWELL** never dreamed that one day she would be a cranberry grower.

of channels by means of a guide and aerial photos; setting fishnets while hippos bellowed in the distance; being awakened at night by a spine chilling hyena's laugh; joking with village women; cooking in three-legged pots over campfire coals, and working in an international community.

**MY HUSBAND, KIRBY**, was Botswana's Fisheries Officer, responsible for the country's fisheries resources. He was in the country on a local contract that was augmented by the Near East Foundation of New York.

Kirby spent a total of five years in Botswana, including a tour in the Peace Corps. When I joined him in 1975, I found he was known everywhere from the most isolated Bushman village



## A Solid Investment

requires solid financing . . . and that's our specialty. Credit for equipment, land, buildings . . . all your financial needs. For Credit . . . Plus a full range of other finance related services, see your local Farm Credit representative.

P.O. Box 7 Taunton, Mass. 02780 Tel: (617) 824-7578  
Office: Located on Rt. 44, 1/4 Mile West of Rt. 24

right up to the President's office.

Among other tasks, Kirby had been instrumental in organizing fishermen's cooperatives in Botswana.

In March 1977, our daughter, Revel Frances—nicknamed "Mpho," meaning "little guest" in the native tongue—was born in Maun, the village we lived in on the edge of the Okavango Delta.

The closest large village was near Zimbabwe, over 300 miles east by dirt road, and Angola was a three day journey north through the swamps. I became worried about being so far away from advice about infant care. But the worry proved totally unfounded. The village women took it upon themselves to make sure little "Mpho" (pronounced Imp-o) was brought up properly.

**OUR DAUGHTER** was a year and a half old when we returned to the states in 1978.

We had every intention of pursuing fisheries careers—either in the states or abroad—but we never got around to organizing a job hunt.

Instead, we purchased a weedy, 35 acre cranberry bog in South Carver, Mass., and a house 12 miles away in Rochester. The bog was reminiscent of the Okavango Swamps—at least to us.

I remember someone laughing and calling our property "the four vine bog." But eyes opened wide when our first harvest came in.

The bog responded very well to preliminary management after having been nearly abandoned. With the big blueberry bushes and maple trees cut out, more weeds being discouraged by the year and healthier cranberry vines, it doesn't draw wisecracks anymore.

Pooling our efforts with my

inlaws, we formed Gilmore Cranberry Co. Inc last year and were able to support two families on a full time basis. The company's first harvest was in 1980 and we presently have 65 acres in production.

**OUR MONEY** is being invested into increasing production on producing bogs and into rebuilding old bogs that have been out of production, practices being followed by many area growers while the market is strong. Last year we replanted six acres, this year we have five scheduled.

Growing cranberries is a fascinating way of life and I've been excitedly recording our progress every step of the way. I've worked on the frost call network and I regularly attend growers' programs at the Massachusetts Cranberry Experiment Station in East Wareham.

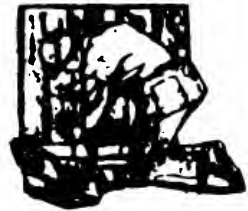
In addition, I write for the weekly Sippican Sentinel and I look forward to writing regularly for CRANBERRIES on my favorite topic—cranberries, of course.

## Niemi Electric Co.

ROBERT NIEMI

ELECTRICAL CONTRACTORS  
HEAT, LIGHT and POWER WIRING

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL



TEL. 295-1880

Robert Niemi Pinchurst Dr. Wareham, Mass.

WISCONSIN CRANBERRY  
HEADQUARTERS FOR



EVITAL • SOLO • DIQUAT  
2-4-D • DOWPON • ETHREL  
SEVIN • PARATHION • GUTHION • DIAZINON  
KOCIDE • DIFOLITAN • FERBAM  
COPPER SULFATE • PRINCEP

**Cole Chemical Supply**

DIVISION OF *Hopkins* AGRICULTURAL CHEMICAL CO  
P.O. BOX 7211, MADISON, WISCONSIN 53707  
608-221-1581

# editorial



## Small spells big

Figures released recently from the 1978 Census of Agriculture show an upward trend in the number of small farms.

While medium size farms decreased, small and large farms increased between 1974 and 1978. Small is defined as fewer than 50 acres. The number of such farms grew by about 20,000.

Insofar as the data reflect a growth of opportunity in small farming, the figures are good news.

Certainly, recent stories in CRANBERRIES about small growers—as well as the present healthy state of the cranberry market itself—would seem to suggest that there is still a viable place in today's economy for the small farmer.



### MASSACHUSETTS GROWERS

Financial assistance is available for Scholarships and for Hospital and Medical care for Cranberry Growers, their Employees and the families of both when financial need can be shown. For information contact:

**URANN FOUNDATION**  
P.O. Box 1788  
Brockton MA 02403  
Telephone 588-7744

### BARK RIVER *Valvert and Equipment Co.*

*(Wisconsin-Michigan Growers)*

ALUMINUM HEADGATES FABRICATED  
TO YOUR SPECIFICATIONS  
HAND WHEEL OPERATED GATES  
ALUMINUM CORRUGATED PIPE  
INTERNATIONAL POWER UNITS  
INTERNATIONAL CRAWLER TRACTORS  
WARNER & SWASEY EXCAVATORS  
WALDON LOADERS AND USED EQUIPMENT

Eau Claire, Wis.  
715-835-5157  
Madison, Wis.  
608-222-4151

Esacnaba, Mich.  
906-786-6920  
Green Bay, Wis.  
414-435-6676

Milwaukee, Wis.  
414-461-5440  
Ironwood, Mich.  
906-932-0222

**INTERNATIONAL CONSTRUCTION EQUIPMENT**

INTERNATIONAL HARVESTER COMPANY

## CASH RECEIPTS UP IN WISCONSIN

Cash receipts for Wisconsin farm commodities marketed in 1979 totaled about \$4.3 billion, an increase of 17 percent from 1978.

## CRANBERRIES

THE NATIONAL CRANBERRY  
MAGAZINE

—Our 45th Year of Publication—

**VOLUME 45—NO. 5**

*May 1981*

Send correspondence to:

**P.O. Box 249**  
**Cobalt CT 06414**

**Phone: (203) 342-4730**

**Bob Taylor, Publisher/Editor**

### ADVISORS, CORRESPONDENTS

**Massachusetts**—Dr. Chester E. Cross, Director, Massachusetts Cranberry Experiment Station, Irving Demoranville, Extension Cranberry Specialist, Massachusetts Cranberry Station; Michael Couture, East Wareham, Mass.; Carolyn Caldwell, Rochester, Mass.

**New Jersey**—Philip E. Marucci, Cranberry and Blueberry Specialist, Cranberry and Blueberry Laboratory, Chatsworth, N.J.; Elizabeth M. Carpenter, Chatsworth, N.J.; Mary E. Archibald, Collingswood, N.J.

**Nova Scotia**—I. V. Hall, botanist, Research Station, Kentville, N.S.

**Oregon**—Arthur Poole, Coos County Extension Agent, Coquille, Ore.

**Washington**—Azmi Y. Shawa, Horticulturist and Extension Agent in Horticulture, Coastal Wash. Res. and Ext. Unit, Long Beach, Wash.

**Wisconsin**—Tod D. Planer, Farm Management Agent, Wood County; Joan E. Humphrey, Friendship.

CRANBERRIES is published monthly by the Taylor Publishing Co., Wellwyn Drive, Portland CT 06480. Second class postage is paid at the Portland, Conn., Post Office. Price is \$8 a year, \$15 for two years, 80 cents a copy in the U.S.; \$9 a year in Canada; \$10 a year in all other countries. Copyright 1980 by Taylor Publishing.  
ISSN: 0011-0787

# Salt damage to berries

By **KARL H. DEUBERT**  
Massachusetts Cranberry  
Experiment Station

How much salt will harm cranberries?

This question has been asked repeatedly by growers and no satisfactory answer could be given because of a lack of information. Field experiments usually provide solutions to problems but in this case no one volunteered to offer his bog.

Therefore, I looked into the possibility of reevaluating existing data and came up with figures which can be used as guides in case of emergency.

**THE REFERENCES** on hand about salt damage to cranberries were by Chandler, published in this magazine (1, 2). Data presented in these papers were obtained through studies of a pond

contaminated by the 1938 hurricane. Also studied were several bogs which had received salt with contaminated flood water due to faulty tide gates. The same locations were monitored for salt after Hurricane Carol in 1954.

It is difficult to talk about quantities injurious to cranberry because salt acts upon a plant through the roots and through the leaves. Low concentrations, if they remain in the root zone over extended periods of time, may provide sufficient amounts of salt to damage or kill plants. On the other hand, one would expect high concentrations to be necessary to burn leaves because of the wax layers protecting the tissues.

Chandler reported dead vines around sprinklers and near pipe joints, and found the irrigation

water for this bog contaminated with salt (2). Sea water had seeped through faulty tide gates and reached a sump hole used as reservoir. There were 2,300-7,500 ppm (or mg/l) chloride in the irrigation water, about 13-45 percent of the chloride content of sea water.

On a conductivity meter, the reading would vary from 7 to 20 mmhos (millimhos). Salt is completely soluble in water and does not, under regular condition build up in cranberry bog soil. Therefore, it is reasonable to assume that these were the actually damaging concentrations and not concentrations resulting from a build-up after prolonged use of contaminated water.

This is a range affecting plants over a relatively short period of time (nearly acute effect). It does not give any indications as to the low salt levels over

A MOST COMPLETE INVENTORY OF  
IRRIGATION ACCESSORIES



# LARCHMONT

ENGINEERING & IRRIGATION, INC.

P.O. Box 66, 11 Larchmont Lane, Lexington, MA 02173 (617) 862-2550

IRRIGATION EQUIPMENT DESIGNED ESPECIALLY  
FOR THE CRANBERRY INDUSTRY

— FOR EXAMPLE: —

*Gorman-Rupp Self Priming Electric Sprinkler Pumps*  
*Proven Quick Couple Riser*  
*Ingersoll-Rand Water Harvest Pumps*  
*Aluminum Insert Coupling For 4" Poly Pipe*

Contact:

Larchmont Engineering  
Phil Tropeano, President  
(617) 862-2550 (Call Collect)



Contact:

Bill Stearns, Plymouth, Mass.  
(617) 746-6048  
(617) 746-2610



prolonged periods of time (chronic effects).

**SALT HAS BEEN** used on cranberry bogs to control weeds. The largest amount reported in the literature was 300 lb/A on a well drained bog in Nova Scotia (3). The concentration of such a spray solution is very high (10.7 g/100 ml chloride) if applied with 200 gallons of water. When the salt is washed off, about 0.1 oz (3 g, based on 300 lb/A) per sq. foot will reach the soil surface. If leached 8 inches into the ground, the concentration would be in the range Chandler found not damaging if the vines were healthy and undisturbed, and the soil well drained and high in organic matter (17.1 mg/100 g chloride).

These data should be regarded as a guide. There are conditions where smaller amounts of salt will cause problems, or one may get away with no problems despite larger amounts in the ground.

Relative to the extent of damage to vines, the following paragraph is cited: "The amount of injury from salt water seemed to be related to various factors: Vines that had been harvested or otherwise disturbed (weeding, sanding, etc.) before submergence were more seriously injured than those which were not. If drainage was good, less vine injury resulted; newly set vines more than old, and newly-set vines which had been disturbed were injured much more than undisturbed vines. Samples from various bogs seem to associate serious vine injury with low organic matter content and low percentage of fine sand in a soil." (2).

#### REFERENCES

1. Chandler, F.B. 1954. Hurricane injury to cranberry bogs. *CRANBERRIES* 19 (5/6), 7-9. September/October 1954.
2. Chandler, F.B. and I.E. Demoranville. 1959. The harmful effect of salt on cranberry bogs. Experiment

- Station Miscel. Publ. No. 1007. University of Massachusetts, College of Agriculture. 8 pages.
3. Hall, C.J. 1956. Nova-Scotia physician-surgeon, a leading cranberry grower. *CRANBERRIES* 20 (11), 12.



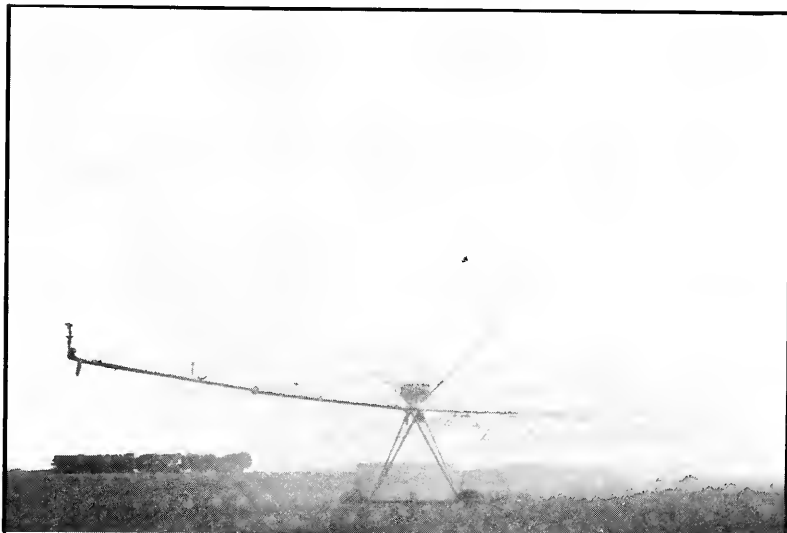
### MASSACHUSETTS

March was a little on the cool side overall, despite a warm finish. The month averaged 0.8 degrees a day

below normal. Maximum temperature was 20 degrees on the 31st and the minimum was 15 degrees on both the 19th and 20th. Warmer than average days were the 16th and the 29th thru 31st. Cooler than average periods were the 3rd, 5th-8th and 18th-21st.

Precipitation totaled a miserable 1.28 inches for the month, which is 3½ inches below normal. This is the second driest March in our records, with only 1962 having a lower total. There was measurable precipitation on nine days, with none having very much. The greatest storm came on the 30th, with 0.63 inches. We are 2.8 inches below normal for the year, but are about 0.7 inch ahead of 1980 for the three month period.

There was no snow recorded in March, but this is not unusual for



## Straight talk about financing irrigation equipment



*Farming is  
everybody's bread  
& butter.*

Choosing a lender to finance irrigation equipment is nearly as important as choosing the equipment itself.

Look to a lender who understands agriculture and your area. Who understands the potential return from irrigated land and the kind of money it takes to do an irrigation job right.

Look for equipment financing where you pay interest only on the exact amount of money you borrow and only for the number of days you actually use it.

Look to Production Credit Association.

**Production Credit Associations of Wisconsin**



as no snowfall in that month occurs about once every six years on average. For the winter, we totaled about 10 percent above average snowfall, the bulk of it coming in January.  
I.E.D.

## NEW JERSEY

March weather was quite variable. The first half of the month was actually colder than the last half of February. (The average temperature from February 14-28 was 57.3 degrees F and the average temperature from March 1-14 was 46.8 degrees F.) Much warmer weather prevailed during late March with daily maximum temperatures frequently going into the 60 and 70 degrees range. This

warm spell could not balance out the low readings earlier in the month and the temperature averaged out 39.1 degrees F, or 2.6 degrees below normal. Extremes in temperature readings were 77 degrees F on the 29th and 16 degrees on the 4th, 18th and 20th.

After a short period of respite from dryness during February, rainfall was again considerably short of normal. Although there were a little more than the usual rainy days—eight—all but two were merely sprinklings. The total precipitation for the month was only 2.07 inches, 1.44 below normal. This was the ninth in the past 11 months during which rainfall has been deficient. During this period, only 27.18 inches of

precipitation has occurred, or 13.52 inches below normal.

P.E.M.

## NOVA SCOTIA

Our weather for March was cold, windy and snowy, quite different from February. The mean temperature for February (-0.6 degrees C) was markedly greater than the 50 year average of -6.1 degrees C.

I.V.H.

## WASHINGTON

March continued mild. Maximum temperature was 68 degrees on the 10th and minimum 29 degrees on the 17th.

Rainfall totaled 6.85 inches, 1.93 inches below normal. There was measurable precipitation on 19 days with 1.45 inches on the 31st as the greatest storm.

We are now about 10 inches below normal for the year already.

A.Y.S.



## Crane for Hire

Three quarter yard crane with matts, clam and dragline. Have had years of experience in digging ponds and general yard work.

GEORGE R. NAVA CO.

11 Maple Avenue

Kingston, Mass. 02364

Call 585-4514

## regional news notes

### Massachusetts

By IRVING DEMORANVILLE

Dr. Chester E. Cross, experiment station director, attended the recent Pesticide Board meeting in Boston.

The next day he spoke before 80 persons at the Marion Seniors Club on "Cranberries and the Environment."

He also met with other members of the Cape Cod Cranberry Growers Assn. subcommittee on wetlands and John Barrus of the Farm Bureau at the cranberry station. Barrus will speak with Gov. King about a change in ruling by the Department of Environmental Quality and Engineering restricting construction of cranberry bog in contiguous areas.

Dr. Cross and this writer attended the Ocean Spray area grower meeting in Hyannis.

The Cranberry Growers Seminar at the station on the 18th featured Cross on water management and Prof. John S. Norton on sprinklers



Since 1933

Members of  
the SICPC

Gage-Wiley & Co., Inc.

STOCKS & BONDS

40 Court Street, Plymouth, Mass. 02361

617-746-3322 Call Toll Free in Mass 1-800-242-0263

and how to use them. There were 85 in attendance.

Dr. Cross attended the monthly meeting of the Massachusetts Agricultural Club in Newton on the 26th.

This writer gave an illustrated weed identification session at the recent Cranberry Weed Seminar held at the station and filled in for Dr. Devlin for the session on herbicides and growth regulators. A total of 145 attended.

At the latest station seminar, Dr. Charles Brodel covered selected cranberry insect pests. Pesticide safety also was included. The session counted for credit for recertification by the Pesticide Board. There were 230 in attendance.

\*\*\*\*

As of April 1, 2 points of a possible 10 favor good keeping quality in the 1981 Massachusetts cranberry crop.

The forecast at this time, therefore, is for fair to poor keeping, unless the cranberry growers use appropriate preventive measures. With a strong market demand and profit-level prices, growers are urged to make use of fungicides to reduce both field and storage rots.

Because of last winter's severity, "late holding" this year is a less desirable alternative for combating fruit rots. The expense of fungicides in 1981 is likely to be less than the value of the rotted fruit saved by their use.

\*\*\*\*

Here're the stations and times for the Cranberry Frost Warning Service: WEEI, Boston, 590k AM, 103.9mg FM, 2 and 9 p.m.; WBZ Boston, 1030k AM, 92.9mg, 2 and 9 p.m.; WPLM Plymouth, 1390k AM, 99.1mg AM, 92.9mg FM, 2 and 9 p.m.; WPLM Plymouth, 1390k AM, 99.1mg FM, 2:30 and 9:30 p.m.; WOCB W. Yarmouth, 1240k AM, 94.3mg FM, 2 and 9 p.m.; WBSM New Bedford, 1420k AM, 97.3mg FM, 3:30 and 9 p.m.

By CAROLYN CALDWELL

A \$50 barrel by 1985 was predicted at the recent Ocean Spray annual report meeting held at the Sheraton in Hyannis.

Clark Griffith, who retired from the board, was presented a stunning solid gold cranberry bouquet. Actual cranberry vines were used to make the mold.

The presentation was made by

Ocean Spray President Harold Thorkilsen.

The directors intend to watch the Reagan economy for a couple of years before making any major policy changes. In general, there was a note of optimism expressed about the future of the economy.

## Nova Scotia

By IVAN V. HALL

Recently I had a letter from Prof. Douglas W. Ogle of Virginia Highlands Community College of Abingdon, Va. He would appreciate receiving any material on optimal growth conditions, birds or animals that eat cranberries, as well as cultural information.

## Washington

By AZMI Y. SHAWA

The 1980 crop was disastrous to many growers.

The Washington state cranberry yield was 106,000 bbls. compared to 147,000 in 1979—a reduction of 28 percent. But by all means it was not the lowest yield during the last decade. The lowest yield during that period was 94,000 bbls. in 1974. The highest yield was 154,000 bbls. in 1872.

Weather conditions during the growing period of 1980 were unfavorable as cooler temperature, later fruit set and lower precipitation than normal affected the size of berries.



**Get yours early**

**AGWAY**

NOW IN STOCK

Fresh supply of Devrinol, Difolatan at our place

Robert A. Alberghini  
RFD 5 Plymouth St.  
Carver, Mass. 02330  
Telephone 866-4429

# DEVIRINOL<sup>®</sup> 10-G

AVAILABLE AT THESE STORES:

Robert Alberghini  
Carver, MA  
617-866-4429

New Bedford Agway  
New Bedford, MA  
617-997-0093

Cape Agricultural Supply Inc.  
Sandwich, MA  
617-888-0044

*Devrinol is a registered trademark of Stauffer Chemical Co*

Pilgrim Agricultural Supply Inc.  
Plymouth, MA  
617-746-0970

Merle Stetson  
E. Taunton, MA  
617-822-6748





# It's 1981

This year *change* your 1960 style fertilizer program to a more *profitable* program using a cranberry fertilizer with IBDU<sup>®</sup> as the primary source of nitrogen.

Come in and discuss:      Fertilizer Weeds  
   Soil Testing  
   Helicopter Application

Watch your profits increase in the 80's

with

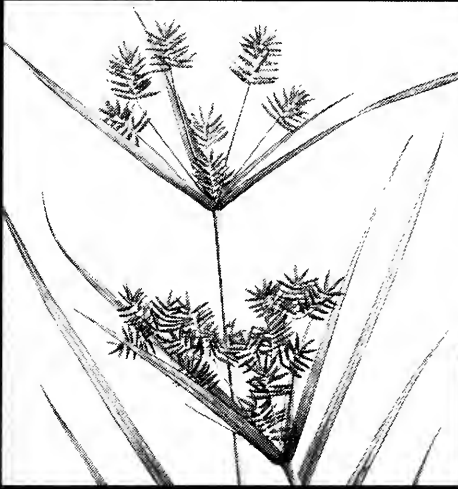
**IBDU<sup>®</sup>**



*Your Year-Round Service Center*

CRANBERRY HIGHWAY\*WEST WAREHAM, MASSACHUSETTS 02576\* (617) 295-1553

Nutgrass



Rice cutgrass



# Control nutgrass and cutgrass without harming your vines. Use Devrinol.<sup>®</sup>

Selective Herbicide

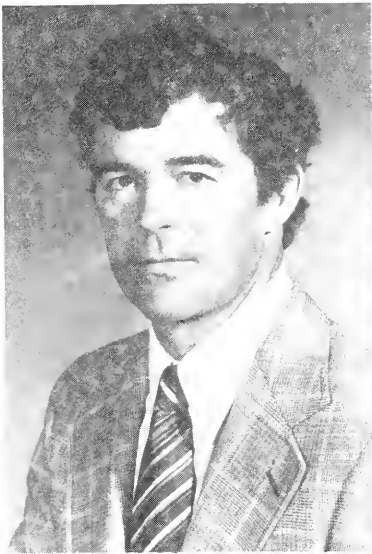
**Massachusetts cranberry growers**, you can control both nutgrass and rice cutgrass without harming your vines.

Use Devrinol<sup>®</sup> herbicide. Devrinol gives excellent control of these tough weeds with good crop tolerance.

Apply Devrinol 10-G in the spring, before weeds begin to grow. Or, you can apply Devrinol in the fall, after harvest.

Control nutgrass and cutgrass without harming your vines. See your Stauffer supplier for Devrinol. For use in Massachusetts only. Always follow label directions carefully. Stauffer Chemical Company, Agricultural Chemical Division, Westport, Connecticut 06880.

 **Devrinol<sup>®</sup>**



**LEFT TO RIGHT: John D. Walsh, Tina E. Freeman and John W. Meier.**

## **COOP REORGANIZES MARKETING DEPT**

Ocean Spray Cranberries has reorganized its marketing group into a new Business Operations Department that has responsibility for the financial goals of each of the company's products.

George H. Kilpatrick, senior vice president-marketing, says that the reorganization adds profit/loss responsibility to the traditional advertising and promotional roles of product management.

"This consolidation is designed to facilitate management of our corporate objectives for the 1980's," he says.

John D. Walsh, formerly director of marketing-domestic, heads up the new department as general manager-business operations, reporting to Kilpatrick. Walsh has held a variety of positions in marketing and corporate planning and development since joining Ocean Spray from the General Foods Corp. in 1970. He is a graduate of Providence College and holds a master's degree in industrial administration from Yale.

Reporting to Walsh are two division business managers: Tina E. Freeman, who is responsible for Ocean Spray's citrus, frozen and chilled products, and John W. Meier, who is responsible for all the company's cranberry products. Both of the division business managers oversee several business unit managers who have direct responsibility for specific

products.

Before her promotion, Freeman served as senior product manager-cranberry drinks. She joined Ocean Spray in 1978 as associate product manager, blended cranberry drinks.

Freeman previously worked as manager of product research and development for the Shawmut Bank of Boston and as a research analyst for Housing Innovations Inc. and the Boston Redevelopment Authority. She is a graduate of Mount Holyoke College and holds

an MBA from Suffolk University.

Meier was promoted to division business manager from his former position as group product manager in charge of cranberry and grapefruit juices and drinks. He joined Ocean Spray in 1976 as a senior product manager after leaving Heublein, where he served in the company's spirits and consumer products divisions. A graduate of Wesleyan University, he also holds an MBA from Columbia University.

**Office  
295-2222**

**K. Beaton  
295-2207**

# **BEATON'S CRANBERRY GROWERS SERVICE**



**D. Beaton  
888-1288**

**P. Beaton  
947-3601**

**WAREHAM, MASS.**

**Specializing in**

- **DITCHING**
- **SANDING**
- **COMPLETE BOG MANAGEMENT**
- **NETTING**
- **WEED CLIPPING**
- **HARVESTING (Wet and Dry)**

**Also**

**Complete line of portable Crisafulli Pumps 2" - 16"  
Plastic netting for suction boxes**



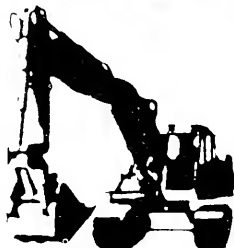
contains only the poaching liquid from the chicken and egg yolks.

## SUPREMES DE VOLAILLES IN CHAMPAGNE SAUCE

(Makes 6 servings)  
3 large chicken breasts, boned,  
skinned and cut in half



# M. C. Howes



Specializing in  
Agricultural Construction

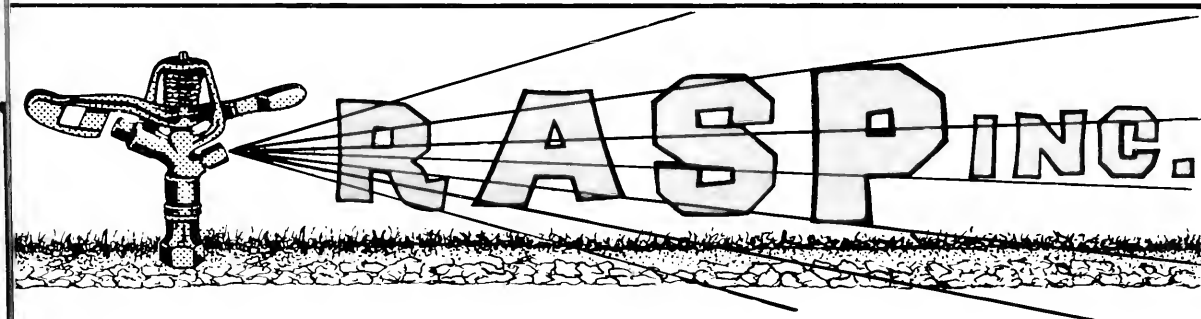
*Flumes  
Canals  
Land clearing  
Sanding  
Water holes  
Ditching  
Dikes  
Grading*

MERT HOWES  
295-5542

619 COUNTY ROAD  
W. WAREHAM, MASS.  
02576

*As the invitations for summer parties start to arrive, there's a groan of anguish from the dieters in the house. Parties usually mean an abundance of food—most of it fattening.*

*However, you can make a concentrated effort to cut calories in summer party dishes. Instead of heavier bechamel sauce, for example, chicken breasts can be dressed with a light sauce that*



AUTHORIZED AGWAY REPRESENTATIVE

LICENSED SPRAYING OF PESTICIDES (Seasonal)

WITH A COMPLETE LINE OF:

CRANBERRY INSECTICIDES • FUNGICIDES  
HERBICIDES • MITICIDES • and FERTILIZERS  
IN STOCK!

ROBERT A. ALBERGHINI — SPRAYING  
RFD 5 PLYMOUTH STREET, CARVER, MASS. 02330  
TELEPHONE: 866-4429

AGWAY

For further information, call evenings after 5:30

AGWAY

1 teaspoon salt  
 ¼ teaspoon white pepper  
 1 cup chicken broth  
 1 cup champagne  
 ½ teaspoon leaf thyme, crumbled  
 1 tablespoon finely chopped fresh parsley  
 2 or 4 egg yolks  
 Fresh watercress

Arrange chicken supremes in a single layer in a buttered heavy skillet or shallow, flameproof casserole. Sprinkle with salt and pepper. Pour chicken broth and champagne over chicken. Sprinkle chicken with thyme and chopped parsley. Cover, simmer for about 20 minutes over medium heat and until chicken is tender. Drain off cooking liquid and measure.

For each cup of poaching liquid, lightly beat two egg yolks (NOTE: You will have either 1 or 2 cups of reserved liquid. If necessary, additional champagne may be added to make 2 cups liquid.) Heat poaching liquid in the top of a double broiler directly over source of heat until simmering; spoon a small amount into yolks, return to pan; set over simmering water. Heat and stir until thickened and there is no raw egg taste. Pour over supremes and garnish with watercress and grapes.

**RECORD SALES ARE REPORTED BY COOP**

Ocean Spray Cranberries reports record consolidated sales revenues of \$235 million and net proceeds of

**CRANBERRY GROWERS REALTY**

Listings of buyers and sellers welcomed on cranberry acreage and upland.

Appraisals

**DOUGLAS R. BEATON**  
 E. Sandwich, Mass.  
 02537  
 (617) 888-1288

**NEW**

**Save money, save time**

We are offering growers bulk custom fertilizer blended to your specifications. Ask your local AGWAY representative about it.

**Agway 12-24-12 Cran-Best**

This product is an ammoniated, granulated fertilizer containing all three major plant food elements in each granule, not to be confused with the dry blended fertilizer being sold.

Don't guess on fertilizer, know what you are getting. Be sure. Use AGWAY 12-24-12 Cran-Best.

AGWAY 12-24-12 Cran-Best is available at the following stores:

Robert Alberghini  
 Carver, MA  
 617-866-4429  
 New Bedford Agway  
 New Bedford, MA  
 617-997-0093

Cape Agricultural Supply Inc.  
 Sandwich, MA  
 617-888-0044

Pilgrim Agricultural Supply Inc.  
 Plymouth, MA  
 617-746-0970  
 Merle Stetson  
 E. Taunton, MA  
 617-822-6748

\$71 million for the fiscal year ending Aug. 31, 1980.

Ocean Spray president and chief executive officer Hal Thorkilsen says that fiscal 1980 sales represented a 19 percent increase from the previous year's consolidated sales revenues of \$197 million. Net proceeds (payments to grower-members for crop delivered) increased 34 percent in fiscal 1980, from \$53 million in fiscal 1979.

"This marks the fourth consecutive year that the growth rate of net proceeds has exceeded that of sales," Thorkilsen said.

Ocean Spray's grapefruit products contributed \$22 million to fiscal 1980 sales and \$11 million to net proceeds, increasing from \$16 million and \$4 million, respectively, last year. Ocean Spray entered the grapefruit market and accepted its first citrus grower-members in 1976.

During 1980, Ocean Spray's 50th anniversary year, its bottled grapefruit juice became the nation's top selling brand. The cooperative also opened its first manufacturing and distribution center in the sunbelt (Sulphur Springs,

Tex.), and introduced its first tomato product, Firehouse Jubilee Tomato Cocktail.

Subscribe to  
**CRANBERRIES—**  
Only \$8 a Year

## **Mike's Portable Welding**

Cranberry Equipment  
Built and Repaired

*Clippers, Flumes  
and Wheel-offs,  
all types of equipment*

FREE ESTIMATE

(617) 748-0014

(617) 748-1415

(617) 748-0031

**Bog construction**

**Vine setting**

**Flumes and flume work**

**Bog sand**



## **Nemasket Construction Co., Inc.**

**275 Wareham St.,  
Middleboro MA 02346  
(617) 947-1723**

## **DIRECTORY for Cranberry Growers**

### **The CHARLES W. HARRIS Company**

451 Old Somerset Avenue  
North Dighton, Mass  
Phone 824-5607

**AMES**

*Irrigation Systems*

**RAIN BIRD**

*Sprinklers*

**HALE**

*Pumps*

Highest Quality Products  
with Satisfaction Guaranteed



# IN EVERY INDUSTRY THERE IS A NAME FOR QUALITY



OCEAN SPRAY CRANBERRIES, INC., PLYMOUTH, MASS. 02360

AN EQUAL OPPORTUNITY EMPLOYER



# CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

Volume 45, No. 6

June 1981

SB  
383  
C7  
PER



**Market order debate . . .3**

★★★★★

**Picks bog over cow . . .6**

Library UMass  
Serials Section  
Amherst MA 01002

**Combine Increased yields**



**with**

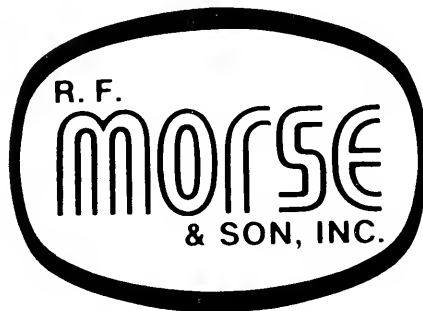
**Decreased Fertilizer Costs**

**Results**

**Greater Profits**

**Use Fertilizer Containing**

**IBDU<sup>®</sup>**



*Your Year-Round Service Center*

CRANBERRY HIGHWAY\*WEST WAREHAM, MASSACHUSETTS 02576\* (617) 295-1553

## **2 growers disagree**

# **The marketing order: is it good or bad?**

By CAROLYN CALDWELL

*The Cranberry Marketing Order was established in 1962—following an 85 percent favorable vote in a grower referendum—to administer distribution of surplus fruit resulting from the “cranberry scare” of November 1959. A decade later, it was revised for the purpose of controlling production. The past few years of prosperity in the industry may lead to other changes to suit the needs of the 1980’s, according to observers.*

*A May 1979 referendum on the order showed strong grower support, with 47 percent in favor of continuing and 10 percent for terminating. By volume, this represents 60 percent of the industry for the order and 9 percent against it.*

*The Cranberry Marketing Committee, consisting of seven members and seven alternates representing 10 states, administers the terms and provisions of the order. For the last 10 years, growers have been assessed 10 cents a barrel for the service. Copies of the marketing agreement and order are available to growers and can be obtained from Committee Manager Charles Hastings Jr., 147 Everett St., Middleboro MA 02346.*

*The 1981-82 season marketing policy states: “Regulatory authority includes establishment of an annual marketable quantity and allotment percentage. Although authorized beginning with the 1974-75 crop year, marketable quantity has only been established in one season but was rescinded prior to the harvest.”*

*As the order stands now, base quantity is taken from the average best four out of six consecutive years. If this average is better than the already existing base, a grower can apply for and receive more base quantity.*

*According to the policy report, harvested acreage in the past decade increased 4 percent while the number of growers dropped 30 percent—from 1,300 to 915. Increasingly larger crops have been attributed to “higher yielding varieties of cranberries and improved cultural and harvesting practices.”*

*The committee’s supply and utilization records show 78 to 89 percent of the annual sales over the last decade have been for processed fruit. Juice outlets account for a significant percentage of this market, according to manager Hastings. Fresh fruit sales make up the remainder and have been showing a downward trend during the period from 380,000 to 240,000 barrels.*

*The supply has fallen short of the demand for several years. Estimates for 1981 show that the demand will be 242,000 barrels over what can be supplied.*

*The marketing order has been both attacked as “an infringement on the marketplace” and praised as “the greatest tool of the industry” by two Massachusetts committee members. The growers, John C. Decas and Douglas Beaton, present their views below. While they see a common need for the cranberry industry to bring supply into line with demand, their recommended approaches are quite different.*

### **COVER PHOTO**

**GROWER** Earle Hill stands in front of two of his flooded Lower Bank, N.J., bogs on a cold, windy morning earlier this year. Besides raising berries, Hill also has been outspoken on governmental matters affecting growers. Story on page 6.

(CRANBERRIES photo by Elizabeth G. Carpenter)

## **Decas: ‘hurts little guy’**

John C. Decas, Marketing Committee representative for independent Massachusetts growers, is the only original member still sitting on the committee.

He has gone on record right from the beginning as being

opposed to the marketing order. Decas contends the order “hurts the little guy” and he advocates the “free market” as the best stimulant for initiative.

“We feel it’s an infringement on the marketplace,” Decas said. “The decisions made from the marketing committee should be made from the free marketplace. The marketplace will tell you when there’s too much or too little.”

Decas maintains that an open, unrestricted market would have controlled excess production without restricting additional acreage.

"A lot of sales are now being lost because acreage that would have been in is not," Decas said. He called the inability of supply to meet the demand in the past three years "a major scandal in the history of the industry."

According to Decas, handlers are now encouraging growers to put in additional acreage but in the meanwhile "the industry has lost millions of dollars in potential sales" because the marketing committee failed to anticipate a boom in demand.

"We should be making money where we can," Decas said. Because of inherent risks in agribusiness, he added, no market should be put "on hold."

"The decisions of the industry to impose the allotment program resulted in lost sales because of all those restrictions," Decas asserted.

"Competition is the name of the game. Competition is what we were discouraging."

As a representative of independent growers, his policy is to "try to use our participation to represent the needs of the independents." Decas says independent growers recognize the order "will exist as long as Ocean Spray exists."

He maintains the base quantity as it is set up now is unfair to good growers and he recommends a "floating base" instead. Bogs that exhibit increased production can receive more base quantity, but the base does not "roll" backwards when production slips, he noted.

"If it is based on the demonstrated ability of a grower, it has to be altered both ways," Decas said.

"The total base quantity in relationship to the crop gets wider and wider each year," Decas said. "In a year we have to impose an allotment, we may have to take a bigger percentage

of the crop."

Decas also called for more cooperation from the federal justice and agriculture departments in enforcing the marketing order by preventing crop record manipulations.

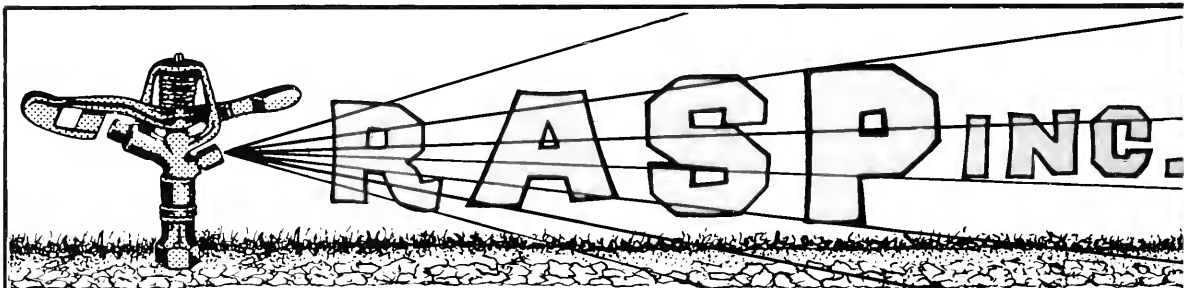
"If we can't regulate the order as it is intended, we can't regulate the marketing order fairly," Decas concluded.

## **Beaton: 'preserves industry'**

Douglas Beaton, an alternate member representing Ocean Spray growers from Massachusetts, calls the marketing order "one of the greatest tools the cranberry industry has."

Beaton belongs to Ocean Spray operates a grower's service and deals in cranberry bog real estate. He talks in glowing terms of using

(continued on page 11)



**AUTHORIZED AGWAY REPRESENTATIVE**

**LICENSED SPRAYING OF PESTICIDES (Seasonal)**

**WITH A COMPLETE LINE OF:**

**CRANBERRY INSECTICIDES • FUNGICIDES  
HERBICIDES • MITICIDES • and FERTILIZERS  
IN STOCK!**

**ROBERT A. ALBERGHINI — SPRAYING  
RFD 5 PLYMOUTH STREET, CARVER, MASS. 02330  
TELEPHONE: 866-4429**

For further information, call evenings after 5:30

**AGWAY**

**AGWAY**

# editorial



## The German experience

In his latest, typically compelling and readable book, "Paper Money," Adam Smith recounts the experience of Germany between the two world wars. The lesson of that period of hyperinflation is implicit. Smith writes:

"Menus in cafes could not be revised quickly enough. A student at Freiburg University ordered a cup of coffee at a cafe. The price on the menu was 5,000 marks. He had two cups. When the bill came, it was for 14,000 marks.

"If you want to save money,' he was told, 'and you want two cups of coffee, you should order them both at the same time.'"

## Vines for Sale

1982 Delivery

### Ben Lear or Stevens

\$2,000 a ton

25% discount on orders received by July 15, 1981 with \$500 per ton deposit. FOB Gordon, Wisc.

Paul Jonjak  
P.O. Box 65  
Sturgeon Bay WI 54235

(414) 743-8500  
(715) 376-2799

## Crane for Hire

Three quarter yard crane with matts, clam and dragline. Have had years of experience in digging ponds, stumping and general bog work.

GEORGE R. NAVA CO.

11 Maple Avenue

Kingston, Mass. 02364

Call 585-4514

## USDA ANNOUNCES PERSONNEL CHANGE

Howard Schutz has been named head of the standardization section of the Fruit and Vegetable Quality Division of the USDA's Food Safety and Quality Service.

## CRANBERRIES

### THE NATIONAL CRANBERRY MAGAZINE

—Our 45th Year of Publication—

VOLUME 45—NO. 6

June 1981

Send correspondence to

P.O. Box 249  
Cobalt CT 06414

Phone: (203) 342-4730

Bob Taylor, Publisher/Editor

### ADVISORS, CORRESPONDENTS

**Massachusetts**—Dr. Chester F. Cross, Director, Massachusetts Cranberry Experiment Station, Irving Demoranville, Extension Cranberry Specialist, Massachusetts Cranberry Station, Michael Couture, East Wareham, Mass.; Carolyn Caldwell, Rochester, Mass.

**New Jersey**—Philip E. Marucci, Cranberry and Blueberry Specialist, Cranberry and Blueberry Laboratory, Chatsworth, N.J.; Elizabeth M. Carpenter, Chatsworth, N.J.; Mary E. Archibald, Collingswood, N.J.

**Nova Scotia**—I.V. Hall, botanist, Research Station, Kentville, N.S.

**Oregon**—Arthur Poole, Coos County Extension Agent, Coquille, Ore.

**Washington**—Azmi Y. Shawa, Horticulturist and Extension Agent in Horticulture, Coastal Wash. Res. and Ext. Unit, Long Beach, Wash.

**Wisconsin**—Tod D. Planer, Farm Management Agent, Wood County; Joan E. Humphrey, Friendship.

CRANBERRIES is published monthly by the Taylor Publishing Co., Wellwyn Drive, Portland CT 06480. Second class postage is paid at the Portland, Conn., Post Office. Price is \$8 a year, \$15 for two years, 80 cents a copy in the U.S.; \$9 a year in Canada; \$10 a year in all other countries. Copyright 1980 by Taylor Publishing.

ISSN: 0011-0787

# Critic of state role in the Pine Barrens

By ELIZABETH G. CARPENTER

"Most of the farms in Sussex County, in northern New Jersey, where I grew up, were dairy farms," says Earle Hill. "When I graduated, I knew I wanted to be a farmer, but I didn't want to be a dairy farmer."

Well, Hill didn't become a dairy farmer. He became a cranberry grower in the more centrally located cranberry country of New Jersey.

On a recent cool, gray morning, Hill sat in the comfortable living room of his home in the hamlet of Lower Bank in Washington Township, Burlington County, and discussed events that have shaped life in New Jersey's Pine Barrens. His wife, Mae, prepared for another busy day as the well respected 2nd grade teacher in neighboring Woodland Township's Chatsworth Elementary School.

**THE HILL HOME**, a former stagecoach stop, is a picturesque, three story, white frame house made of native pine and Atlantic white cedar. It was built when lumbering, glassmaking and iron smelting drew many people to the Pines. A weathered millstone flecked with mica supports a large chunk of glass slag in the sideyard. Both were taken from Bulltown, an old glassmaking community in the Pines and the site of Hill's former lumber mill. Today Bulltown is one of the region's forgotten communities.

Hill recalls that he "hand scooped cranberries in Leektown for 25 cents a 40 pound scooping box and a person harvesting a poor crop in the early 1930's

might earn only \$1.50 a day."

In 1940 he invested in his first 600 acre parcel of land complete with cranberry bogs.

His outlook on the cranberry industry in New Jersey today is tempered by 41 years as a Pine Barrens cranberry grower, 35 years as a school board member, 20 years as Washington Township's mayor and three years as the mayor's representative to the often embattled Pinelands Environmental Council.

Currently, Hill, a member of the Ocean Spray Cooperative, owns bogs at Lower Bank, Bulltown and Weekstown. Cranberry varieties in his bogs include Early Black, Richards planted in 1890 and Howes planted in 1914. The Howes have garnered a slightly higher production record over the years. Berries from his annual harvest are trucked to Ocean Spray in Bordentown, N.J., for processing.

**LACK OF WATER**, tipworm and vandalism are major problems confronting Hill's bogs. Like most New Jersey growers, he converted to water harvesting in the 1960's. However, late summer and early fall droughts coupled with frost destroyed his entire crop three years ago and in 1980 he lost the berries at his Weekstown and Lower Bank bogs.

Irrigation would solve this problem. However, Hill notes that "it's an expensive undertaking for a small grower." With irrigation, he estimates, he could increase production from 150 to 200 barrels per acre.

Tipworm can be controlled by aerial spraying and Hill, like other Pine Barrens growers, depends on the pesticide recommendations of scientists at the Rutgers University Cranberry and Blueberry Research Center in Chatsworth. Timing of the flights is

all important if maximum benefit is to be gotten from the sprays, Hill notes. Although false blossom disease used to be a major problem, consistent spraying and vine pruning have eradicated it.

"A few years ago, I 'lost' a new \$10,000 tractor," Hill recalls. "Today it would probably cost \$20,000."

His experiences with theft and vandalism have increased in recent years and parallel the accounts of other growers.

An occasional motorcyclist thinks nothing of careening through a bog and the motorists in some four wheel drive vehicles regard roadblocks on private property as personal challenges. Much of Hill's land abuts state-owned forest and he believes vandalism might decline if the vehicles were banned on this public property.

**OVER THE YEARS**, Hill, in his capacity as mayor of 107 square mile Washington Township, has been an outspoken critic of state land acquisition.



*Harris Apiaries*

Honey bees available for  
1981 pollination

Jon Harris  
576 River St.  
Boston, Mass. 02126

(Evenings)  
298-4623

and use. Eighty five percent of the bog is owned or controlled by New Jersey, leaving the township's 801 citizens to confront a dwindling tax base while experiencing rising costs.

"The state's decision in 1954 to acquire the Wharton Tract, 44,000 acres of which are in Washington Township, motivated me to run for political office," Hill says.

He explains that the township realizes only 10 cents per acre on the Wharton Tract property as annual tax payment from the state to the township. After an initial 13 years of graduated tax payment, the state, with respect to land administered by the N.J. Department of Environmental Protection's Division of Fish, Game and Shellfisheries, is no longer legally bound to contribute to the township's tax base.

New Jersey's Wetlands Act of 1970, the Coastal Area Facility Review Act (CAFRA), the Wild and Scenic Rivers Act, the Green Acres Acquisition program, and, most recently, the Wetlands Commission with its federally approved master plan, have all had a stifling impact on Washington Township's economic base.

Like many of his constituents, Hill has consistently challenged what appears to be "confiscation by legislation," without equitable reimbursement.

**WHEN ASKED** about the five recently proposed state legislative acts pertaining to water management in New Jersey—Senate nos. 1610-1614—Hill responds strongly: "They're no good. If they're adopted and the (N.J.) Department of Environmental Protection really wants to enforce them, forget cranberries!"

(The acts were discussed in **CRANBERRIES'** coverage of the Feb. 12, 1981 American Cranberry Growers' Assn. meeting that appeared in the April issue.)

Hill, former president of the American Cranberry Growers' Assn., contends that cranberry growers manage water wisely. They "pick progressively," flooding one bog, then recycling the water to flood another, he says.

"Water in reservoirs percolates down through the soil to help replenish the underground water supply," he adds.

He views strict regulation of water as yet another attempt by the state to confiscate legislatively.

When not involved with civic responsibilities or working on his bogs, Hill will occasionally discuss possible equipment designs that would increase efficiency of cranberry cultivation with Paul Burk, a neighbor and engineer. He'd like Burk to develop a hand operated weed wiper with rapid rotation of the "roller" which could possibly reduce herbicide dripping.

Although Hill insists that he is "not a skilled cabinetmaker," he has handcrafted book shelves and cupboards for the family's living

room and dining room and three granddaughters thoroughly enjoy the dollhouse he created for them. It's a unique dollhouse, for inside and out it's a scale model of their grandparents' historic home.

Asked about the future of New Jersey's cranberry industry, Hill exclaims: "It'll go great guns if the state doesn't regulate the water."

Then he thoughtfully concludes: "Water shouldn't be taken from the Pine Barrens. If it's drawn down 2 feet, the whole ecology will change in two years."

**Bog construction**

**Vine setting**

**Flumes and flume work**

**Bog sand**



**Nemasket  
Construction  
Co., Inc.**

**275 Wareham St.,  
Middleboro MA 02346**

**(617) 947-1723**



# BARK RIVER

*Culvert and Equipment Co.*



## OUR BUSINESS

SERVING CONSTRUCTION . . . .

MINING . . . .

MUNICIPALITIES . . . .

LOGGING . . . .

AND

## Wisconsin Cranberry Growers

WE ARE THE NO. 1 CULVERT PRODUCT  
SUPPLIER IN WISCONSIN & UPPER MICHIGAN.  
(ALUMINUM PIPE, HAND WHEEL OPERATED GATES, ETC.)

. . . . AND WE'RE THE AREA DISTRIBUTOR FOR

**International** CONSTRUCTION & INDUSTRIAL EQUIPMENT  
AND OTHER EQUIPMENT MANUFACTURERS  
(CRAWLERS, TRACTORS, EXCAVATORS, LOADERS, ETC.)

## Can We Serve You? . . .

**EAU CLAIRE**  
(715) 835-5157

**GREEN BAY**  
(414) 435-6676

**ESCANABA**  
(906) 786-6920

**IRONWOOD**  
(906) 932-0222

**MADISON**  
(608) 222-4151

**MILWAUKEE**  
(414) 461-5440

# Scientist boosted Washington yields

Dr. Charles Doughty, who retired last year, brought about significant changes in the cranberry and blueberry production of the state of Washington during his 29 years as a research horticulturist.

**THE WASHINGTON** State University scientist devoted almost his entire career to study at the Western Washington Research and Extension Center in Puyallup and at the Coastal Washington Research and Extension Unit near Long Beach.

He began his research career at a relatively late stage in his life but accomplished much, according to his colleagues. While at Long Beach, concentrating on cranberry problems, Dr. Doughty researched and recommended cultural practices that changed the industry.

Growers had been getting heavy production one year and light production the next. He pioneered work with fertilizer treatments spaced throughout the growing season and soon the bogs were doing well each year.

Per acre yields also jumped and Washington State moved into fourth place among cranberry producing states in the nation. When New Jersey has a poor crop year, Washington can claim third.

Washington's 1,200 acres of cranberries each produce from 150 to 350 of the 100 lb. barrels per year, or twice as much as was being produced when Dr. Doughty first went to Long Beach.

Besides the fertilizer recommendations, Dr. Doughty tested a new product called Casoron for its weed control benefits to the cranberry bogs. At the time, Casoron, now one



**DR. CHARLES DOUGHTY**

of the most used agricultural herbicides, was new from Europe and generally unknown in the country.

Dr. Doughty's recommendations regarding application rates, performance levels and chemical residue of the product in the fruit became standards of the cranberry industry and in other fields of agriculture.

**FROST PROTECTION** for cranberries and blueberries was another area of concentrated research work by Dr. Doughty.

Blueberries, like cranberries, take from five to eight years to come into production. Dr. Doughty worked on ways to increase growth and shorten this "juvenile" period. He also did research to determine fertilizer needs and timing when the plants were least susceptible to frost damage.

Another blueberry growers' nemesis was the "mummy berry" and Dr. Doughty was in the thick of the battle to correct this situation. Together with his fellow scientists at Washington State University, Dr.

Doughty's efforts helped bring out some dramatic improvements for blueberry growers.

When he began his work, blueberry fields were yielding about 3,500 lbs. per acre. In 1979 the averages had jumped to 6,000 lbs. Now the 800 to 900 acres of blueberries in Washington are the highest production plots in the nation, substantially ahead of the 4,375 lbs. produced by runnerup Michigan State, according to the North American Blueberry Council figures.

**DR. DOUGHTY**, a native of Colorado, who grew up on an apple orchard near Kansas City, didn't begin college until he was 33. A tendency toward a career in tree fruits shifted to a growing interest in research work and Dr. Doughty completed his Ph.D. at WSU even after some of his efforts for the cranberry industry had begun in Long Beach.

Dr. Doughty and his wife, Reta, make their home in Sumner. Their two sons are nearby. Charles Jr. works as an accountant for a Tacoma manufacturing company and Galen is an associate pastor at the Marineview Presbyterian Church in Tacoma.

Dr. Doughty and his wife, who have been very active in their United Presbyterian Church, hope to do some missionary work for the church in Alaska during their retirement years.



## MASSACHUSETTS

April was slightly on the warm side at 0.8 of a degree a day above normal. About 50 miles inland from the station the weather was considerably warmer. The maximum temperature was 76 degrees on the 18th and minimum 26 degrees on

(continued on page 12)

## IMAGINE...

an electronic voice calls you at home and warns you of impending disaster. That voice belongs to Chatterbox™.

## A TALKING THERMOMETER

keeping you in touch and in control of the perilous temperature conditions that can cost you an entire crop. Simply pick up the phone and call your facility, local or long distance. Chatterbox™ will answer, tell you the temperature, advise you whether the pumps or other equipment are operating and await your instructions. Let Chatterbox™ know what temperature or other condition is of concern and it will phone and give warning.

**Demonstration Hotline.** Chatterbox™ is waiting to talk to you! Pick up a phone, dial (415) 658-6716 and hear it for yourself. For more information, leave us your name, address and phone number in the time provided at the end of the demonstration.

**Added value.** Chatterbox™ saves you money and peace of mind.

- Affordable and easy to use.
- Saves driving time.
- Range from -20° to +120°F.
- Provides the unprecedented security of a 24-hour guard at any field or storage location.
- Operates three months on its rechargeable batteries.

**Give you Ideas?** Chatterbox™ can be used to report pressure, water level, vandalism, burglary, etc. You may come up with many innovative applications of your own that Chatterbox™ is perfectly equipped to handle.

# CHATTERBOX™

a very sound investment for 1981  
by the makers of Tempwatch®

Available from the following dealers:

### WISCONSIN CRANBERRY CONSULTANT SERVICE

BOX 429  
449 GREENWOOD DRIVE  
WISCONSIN RAPIDS, WISCONSIN 54494  
(715) 423-4871

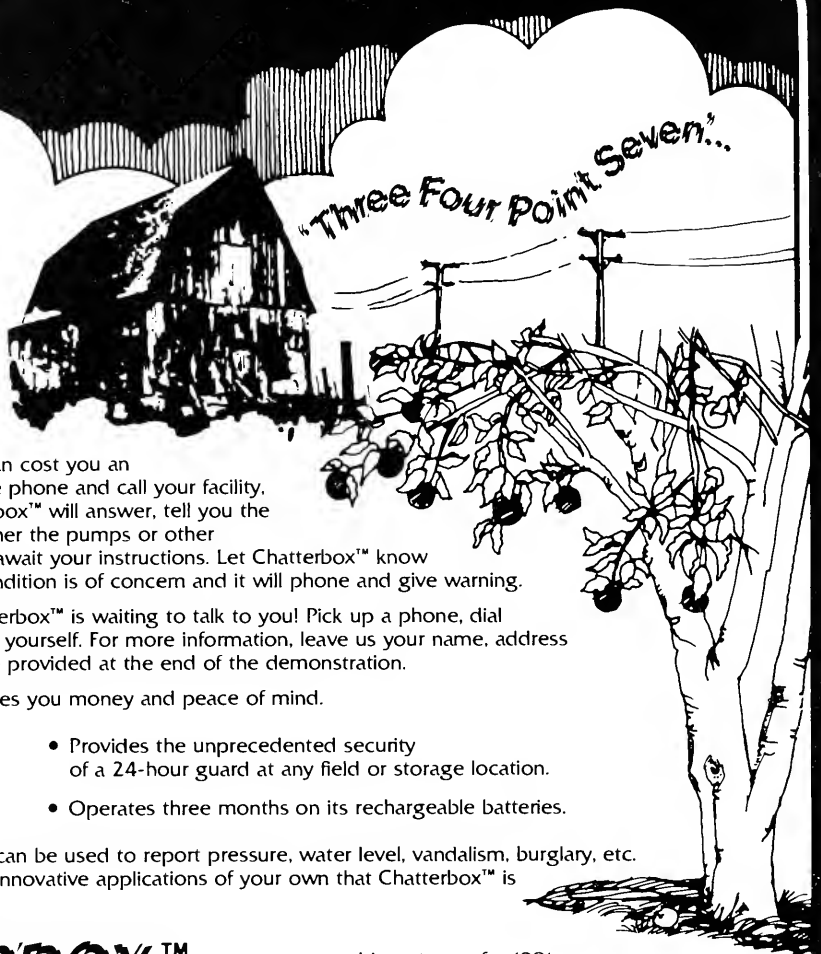
### DECAS CRANBERRY CO., INC.

219 MAIN STREET  
WAREHAM, MASSACHUSETTS 02571  
(617) 295-0147

### DONALD HATTON

ROUTE 1, BOX 432  
GRAYLAND, WA 98547  
(206) 267-1807

**RACO®** Manufacturing and Engineering Company  
1400 62nd Street, Emeryville, CA 94608, Telephone: (415) 658-6713



## MARKET ORDER . . .

(continued from page 4)

the order to preserve cranberry growing as a way of life that can be handed down from father to son.

"The cranberry industry is very rewarding," Beaton said. "Hard work, sweat and money are directly related. At times you have free time, then you wish you had a free second. If I can, I will preserve it for my son and his son for the next 30 to 40 years . . . I think the order can do that."

He intends to become more active on the committee.

"It's a grower's order—they have the most to gain and the most to lose," Beaton said. He contends there should be no room for "handler clashes" on the committee.

Beaton thinks growers should be planting now for 1985 and later. He views a lack of foresight as a historical problem with the cranberry industry. Sales are projected four to five years ahead at the maximum, he said.

"I want to gear the order so we're looking at least five years ahead, maybe ten," he said, explaining that this will bring supply and demand in line so growers and handlers can benefit together.

According to Beaton, the order should be telling growers how many new acres are needed in each area and what varieties to plant.

"We should be working hand in hand with the growers to be the guiding force 10 years hence," he said. "I think we've got to supply that information."

Beaton envisions the marketing committee as the instrument for attaining "orderly growth" in the industry. His goal would be to eliminate real estate fluctuations that make bog values unpredictable.

"We have to grow at an orderly rate and get rid of this hysteria," he said.

He also thinks the marketing committee can boost the spirit

of cooperation between Ocean Spray and independent handlers.

"I believe the handlers have to work closer together," he said. "Ocean Spray is the industry. Independents get fat or lean with us."

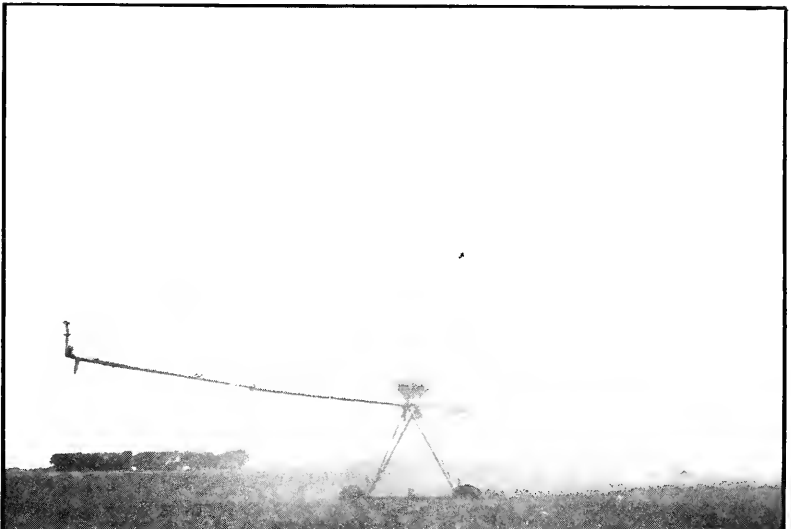
Beaton said he would like to have the committee reduce the paperwork it requires from the growers. The committee has trimmed its secretarial services and mailings and is trying to get down to one form a year.

"The order should not destroy initiative to produce cranberries," Beaton said. "The last thing we should be doing is putting a choke on the cranberry

industry."

He supports the established base quantity transfer as a way of keeping the order current. A 2 percent reserve of the total base quantity is established annually from the amount that becomes available through reduction or invalidation because of nonuse. The reserve is made available on a percentage basis to new producers (25 percent) and to existing producers (75 percent).

"It is an equitable system," Beaton said. "It is fair to everyone—old grower, new grower."



## Straight talk about financing irrigation equipment



Farming is  
everybody's bread  
& butter.

Choosing a lender to finance irrigation equipment is nearly as important as choosing the equipment itself.

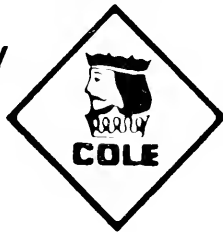
Look to a lender who understands agriculture and your area. Who understands the potential return from irrigated land and the kind of money it takes to do an irrigation job right.

Look for equipment financing where you pay interest only on the exact amount of money you borrow and only for the number of days you actually use it.

Look to Production Credit Association.

**Production Credit Associations of Wisconsin**

**WISCONSIN CRANBERRY  
HEADQUARTERS FOR**



**SEVIN XLR**

DEVIRINOL 10G \* EVITAL \* GUTHION  
DIAZINON 14G \* PARATHION \* ETHREL

**Cole Chemical Supply**

DIVISION OF *Hopkins* AGRICULTURAL CHEMICAL CO  
P.O. BOX 7211, MADISON, WISCONSIN 53707  
608-221-1581

**WEATHER WATCH . . .**

(continued from page 9)  
the 22nd. The night of the 21-22nd provided the first frost warning and there were several bogs reporting temperatures of 8 degrees. Warmer than average days were the 10th, 18th, 26-28th and 30th. Cooler than average days were the 13th, 15th, 16th, 21st, 24th and 25th.

Precipitation totalled 4.06 inches or about ¼ inch below normal for the month. There were 11 days with precipitation, with .98 on the 5-6th as the greatest storm. We are 3 inches below normal for the four months of 1981 and about 0.6 inch above the same period in 1980.

I.E.D.

(continued on page 14)

**NEW**

**Save money, save time**

We are offering growers bulk custom fertilizer blended to your specifications. Ask your local AGWAY representative about it.

.....

**Agway 12-24-12 Cran-Best**

This product is an ammoniated, granulated fertilizer containing all three major plant food elements in each granule, not to be confused with the dry blended fertilizer being sold.

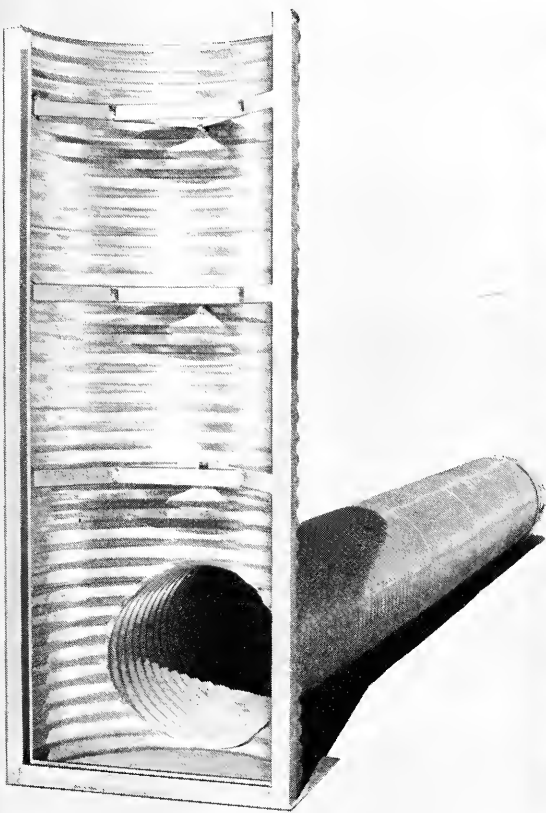
Don't guess on fertilizer, know what you are getting. Be sure. Use AGWAY 12-24-12 Cran-Best.

AGWAY 12-24-12 Cran-Best is available at the following stores:

Robert Alberghini  
Carver, MA  
617-866-4429  
New Bedford Agway  
New Bedford, MA  
617-997-0093

Cape Agricultural Supply Inc.  
Sandwich, MA  
617-888-0044

Pilgrim Agricultural Supply Inc.  
Plymouth, MA  
617-746-0970  
Merle Stetson  
E. Taunton, MA  
617-822-6748

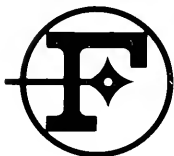


## Install the flow gates now that generations will rely on.

Felker flow gates are built to last, thanks to famous Felker welded construction, generously braced designs, and highest quality materials. Manufactured in aluminum only.

Standard sized for conduits from 15- to 48-inch diameters with riser widths from 24- to 72-inches, height as required. Single, double and triple log channel designs, other sizes available upon application. For virtually any size or water control application, Felker Brothers are flow gate specialists. **Send for free bulletin.**

**OUR  
STRENGTH  
IS METAL**



**FELKER BROTHERS CORPORATION**

Marshfield, Wisconsin 54449

PHONE 715-384-3121 TWX 510-370-1846 TELEX 29-3451

## WEATHER WATCH . . .

(continued from page 12)

### NOVA SCOTIA

April has not been nice to us and on the evening of April 15 the temperature at Kentville dropped to approx-

imately -7 degrees C. The following day was extremely cold with strong winds out of the northwest. On the evening of April 20 we had a slight snowfall and winds came from the

northwest again. We will probably have some adverse effects from all this as prior to April we were well advanced phenologically.

I.V.H.

## Mike's Portable Welding

Cranberry Equipment  
Built and Repaired  
*Clippers, Flumes  
and Wheel-offs,  
all types of equipment*

FREE ESTIMATE

(617) 748-0014

(617) 748-1415

(617) 748-0031

## Niemi Electric Co.

ROBERT NIEMI

ELECTRICAL CONTRACTORS

HEAT, LIGHT and POWER WIRING

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL



TEL. 295-1880

Robert Niemi

Pinchurst Dr.

Wareham, Mass.

## DIRECTORY for Cranberry Growers

### The CHARLES W. HARRIS Company

451 Old Somerset Avenue  
North Dighton, Mass  
Phone 824-5607

AMES

*Irrigation Systems*

RAIN BIRD

*Sprinklers*

HALE

*Pumps*

Highest Quality Products  
with Satisfaction Guaranteed



## A Solid Investment

requires solid financing . . . and that's our specialty. Credit for equipment, land, buildings . . . all your financial needs. For Credit . . . Plus a full range of other finance related services, see your local Farm Credit representative.

P.O. Box 7 Taunton, Mass. 02780 Tel: (617) 824-7578  
Office: Located on Rt. 44, 1/4 Mile West of Rt. 24

## WASHINGTON

Precipitation for April totaled 9.47 inches, which is almost 4 inches above normal. There was measurable precipitation on 22 days. The greatest storm came on the 27th, with 1.69 inches, a second storm on the 21st of

1.63 inches added to the total. We are about 6.24 inches below normal for the year, and 5.41 inches below 1980 for the four months.

April was a little on the cool side with a warm finish. Maximum temperature was 73 degrees on the

30th and the minimum was 29 degrees on the 13th with 28 degrees in the bog.

A.Y.S.

## SCIENTIST GOES TO D. C.

Dr. Robert Devlin was in Washington, D.C., on May 14 to participate in a press conference by the Council for Agricultural Service and Technology (CAST) on the 2,4,5-T hearings.



Since 1933

Members of  
the SICPC

**Gage-Wiley & Co., Inc.**

**STOCKS & BONDS**

40 Court Street, Plymouth, Mass. 02361

617-746-3322 Call Toll Free in Mass 1-800-242-0263

## CRANBERRY GROWERS REALTY

Listings of buyers and sellers welcomed on cranberry acreage and upland.

Appraisals

**DOUGLAS R. BEATON**

**E. Sandwich, Mass.  
02537**

(617) 888-1288

A MOST COMPLETE INVENTORY OF  
IRRIGATION ACCESSORIES



# LARCHMONT

ENGINEERING & IRRIGATION, INC.

P.O. Box 66, 11 Larchmont Lane, Lexington, MA 02173 (617) 862-2550

IRRIGATION EQUIPMENT DESIGNED ESPECIALLY  
FOR THE CRANBERRY INDUSTRY

FOR EXAMPLE:

*Gorman-Rupp Self Priming Electric Sprinkler Pumps*  
*Proven Quick Couple Riser*  
*Ingersoll-Rand Water Harvest Pumps*  
*Aluminum Insert Coupling For 4" Poly Pipe*

Contact:

Larchmont Engineering  
Phil Tropeano, President  
(617) 862-2550 (Call Collect)



Contact:

Bill Stearns, Plymouth, Mass.  
(617) 746-6048  
(617) 746-2610

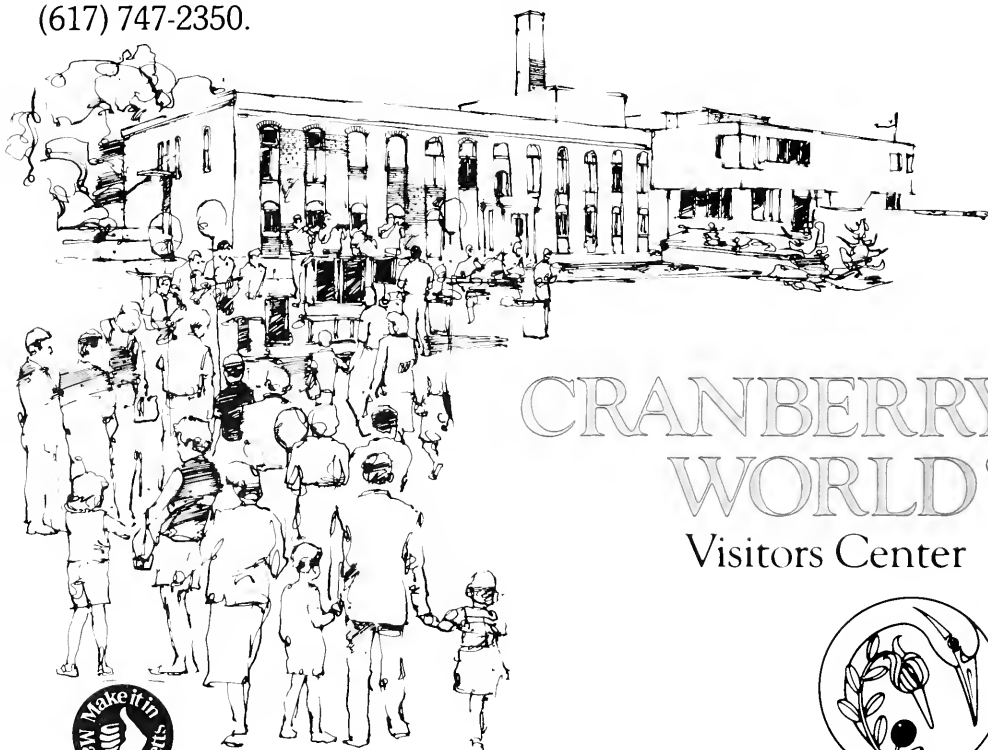




# WHAT'S IN A BOG?

Cranberries. A delightfully delicious fruit well worth learning about at Ocean Spray's fascinating Cranberry World® in Plymouth. Walk around working cranberry bogs. Look at cranberry art and antiques. Listen to our boardwalk concerts. And view our changing monthly art exhibits. Free refreshments, too. And, best of all, free admission for everyone. Come find out what's in a bog. It'll boggle your mind.

Open daily April 1 through November 30th, 9:30 a.m. to 5 p.m. Free Admission. Near Plymouth Rock. Group reservations required. For information write Cranberry World, Ocean Spray Cranberries, Inc., Plymouth, Mass. 02360 or call (617) 747-1000 or (617) 747-2350.



CRANBERRY  
WORLD®  
Visitors Center



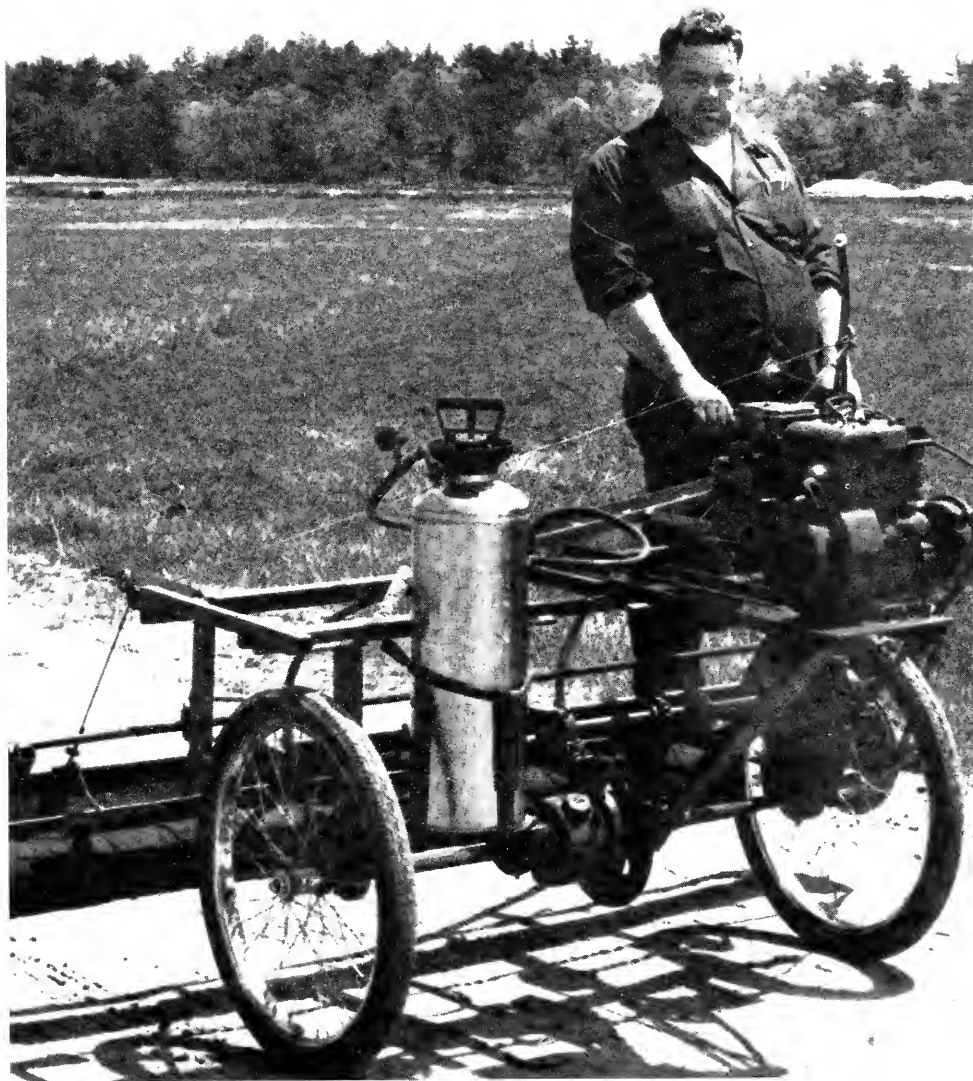


# CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

Volume 45, No. 7

July 1981



**Dripless wiper . . .3**

★★★★★

**Honeybee power . . .6**

Library UMass  
Serials Section  
Amherst MA 01002

**Combine Increased yields**



**with**

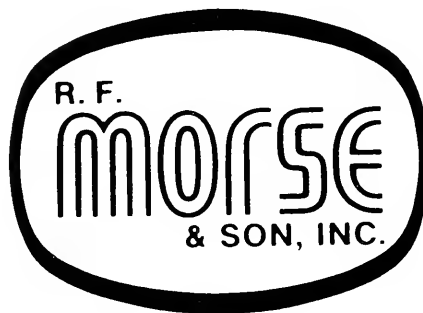
**Decreased Fertilizer Costs**

**Results**

**Greater Profits**

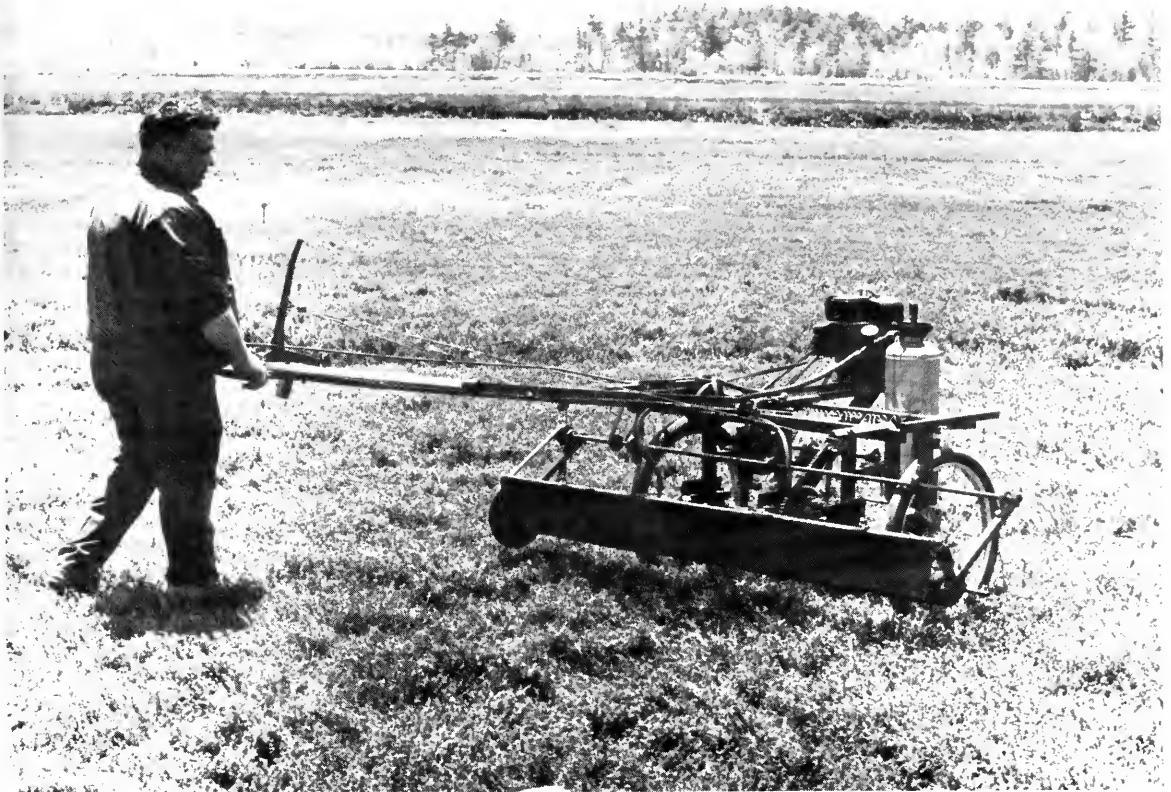
**Use Fertilizer Containing**

**IBDU<sup>®</sup>**



*Your Year-Round Service Center*

CRANBERRY HIGHWAY\*WEST WAREHAM, MASSACHUSETTS 02576\* (617) 295-1553



**THE OFFSET HANDLE** is the secret to getting more chemical on your weeds than on your pants and shoes.

(CRANBERRIES photo by Carolyn Caldwell)

## Growers invent

# A no-drip weed wiper

By **CAROLYN CALDWELL**

Like to walk behind a weed wiper that won't drip?

Well, Jack Atwood and George Peck of the Crane Brook Cranberry Co., South Carver, Mass., have designed and built one.

"The handle is offset from the roll so you don't walk where it puts the chemical on," Atwood said.

"Any time the engine is running, the roll will keep turning to prevent dripping," Peck explained.

The roll is connected to the engine with a pulley separate

from that powering the wheels.

The men previously used a pull behind model which requires the operator to walk backwards or look over his shoulder to see where he has been.

With their new machine, weeds should be wiped starting mid-bog and working toward the ditches in a spiral pattern, while the



### COVER PHOTO

**GEORGE PECK** with the weed wiper invented by him and Jack Atwood. Story on this page. (CRANBERRIES photo by Carolyn Caldwell.)



operator walks outside the treated area.

Crane Brook Co. made up the frame and fitted it with spare parts and sulky wheels. The engine is a Briggs and Stratton 5 h.p. with a 6:1 gear ratio from a water harvest elevator. A spider gear differential to drive the wheels was taken from an old crop duster.

A new stainless steel, pump-up pressurized tank is used for the herbicide. (Peck warns that a galvanized tank would react with the chemicals.) The roll is wrapped with an Army blanket.

(continued on page 12)

# Washington studies marketing orders

A team to review "the economic efficiency" of federal marketing orders for fruits, vegetables and related specialty crops has been appointed by U.S. Secretary of Agriculture John R. Block.

Cranberries are one of the crops covered by a marketing order.

Block said the President's Task Force on Regulatory Relief, headed by Vice President George Bush, has called for a review of marketing order regulations with a goal of eliminating any "that are not needed or that hamper productivity."

The team will assess probable effects of marketing orders on producers, handlers and consumers if various legislative and administrative options were taken, Block said. Changes in "economic conditions and philosophy" will be taken into account, he added.

The five member team is expected to complete its work in September and issue a report.

Team members are: Richard Heifner, staff economist with USDA's Agricultural Marketing Service in Washington, who serves as the team's chairman; Walter Armbruster, associate managing director, Farm Foundation, Oak Brook, Ill.; Edward Jesse, agricultural economist with USDA's Economics and Statistics Service, University of Wisconsin, Madison; Glenn Nelson, professor of agricultural and applied economics, University of Minnesota, St. Paul, and Carl Shafer, professor of agricultural

economics, Texas A&M University, College Station.

**THERE ARE 48** marketing orders and agreement programs in effect.

The review team will give special attention to those regulations that enable agricultural industries to control quantities of commodities marketed through various means such as reserve pools, producer allotments, rate of flow provisions and shipping holidays, Block said.

Seven advisors will aid the team in its study and representatives of producers, handlers and consumers will be consulted, Block explained. As part of its study, the team will

examine other studies made by various governmental agencies and universities during the past decade.

Advisors to the study team include: Charles Brader, director of the fruit and vegetable division of USDA's Agricultural Marketing Service in Washington; Olan Forker, chairman of the department of agricultural economics, Cornell University, Ithaca, N.Y.; Marshall Godwin, economist with USDA's Economic and Statistics Service in Washington; Ted Moriak, economist with USDA's Office of Budget, Planning and Evaluation in Washington; Allen Paul, economist with USDA's Economics and Statistics Service; Donald Ricks, professor of agricultural economic Michigan State University, East Lansing, and Tim Wallace, extension economist on policy and research, University of California, Berkeley.



## A Solid Investment

requires solid financing . . . and that's our specialty. Credit for equipment, land, buildings . . . all your financial needs. For Credit . . . Plus a full range of other finance-related services, see your local Farm Credit representative.

P.O. Box 7 Taunton, Mass. 02780 Tel: (617) 824-7578  
Office: Located on Rt. 44, ¼ Mile West of Rt. 24

# editorial



## Gypsy moth invasion

The Chinese have their year of the dragon, the year of the pig, and so on.

Americans—at least many of those residing in the northeast—are now experiencing the Year of the Gypsy Moth Caterpillar.

Have a cookout and you're likely to swallow one with your mouthful of hamburger or potato salad. The droppings of these voracious creatures sound in the stillness of dusk like the start of a soft rainfall. Everywhere I look, at least, they are undulating along the branches of trees, swinging against the sky on long, slender threads and collecting on windshields, windows, everywhere.

Their threat to oak trees, cranberry plants and other greenery aside, gypsy moths serve as a philosophic restorative. They remind us that no matter how many bombs fall on Iraq, how many bullets whistle through the streets of Salvador or how many rocks are thrown in Belfast, nature has an awesome power that is remarkably indifferent to the predilections or vanities of man—or woman.



Office  
295-2222

### BEATON'S CRANBERRY GROWERS SERVICE

K. Beaton  
295-2207

D. Beaton  
888-1288

  
WAREHAM, MASS.

P. Beaton  
947-3601

Specializing in

- DITCHING
- NETTING
- SANDING
- WEED CLIPPING
- COMPLETE BOG MANAGEMENT
- HARVESTING (Wet and Dry)

Also

Complete line of portable Crisafulli Pumps 2" - 16"  
Plastic netting for suction boxes

## GETS USDA AWARD

Donna M. Lupo, fruit and vegetable market reporting assistant at Everett, Mass., received a superior service award from U.S. Secretary of Agriculture John R. Block at the USDA's 35th annual honor awards ceremony May 28 in Washington, D.C.

## CRANBERRIES



### THE NATIONAL CRANBERRY MAGAZINE

—Our 45th Year of Publication—

VOLUME 45—NO. 7  
July 1981

Send correspondence to

P.O. Box 249  
Cobalt CT 06414

Phone: (203) 342-4730

Bob Taylor, Publisher/Editor

### ADVISORS, CORRESPONDENTS

**Massachusetts**—Dr. Chester F. Cross, Director, Massachusetts Cranberry Experiment Station, Irving Demoranville, Extension Cranberry Specialist, Massachusetts Cranberry Station, Michael Couture, East Wareham, Mass.; Carolyn Caldwell, Rochester, Mass.

**New Jersey**—Philip E. Marucci, Cranberry and Blueberry Specialist, Cranberry and Blueberry Laboratory, Chatsworth, N.J.; Elizabeth M. Carpenter, Chatsworth, N.J.; Mary E. Archibald, Collingswood, N.J.

**Nova Scotia**—I. V. Hall, botanist, Research Station, Kentville, N.S.

**Oregon**—Arthur Poole, Coos County Extension Agent, Coquille, Ore.

**Washington**—Azmi Y. Shawa, Horticulturist and Extension Agent in Horticulture, Coastal Wash. Res. and Ext. Unit, Long Beach, Wash.

**Wisconsin**—Tod D. Planer, Farm Management Agent, Wood County; Joan E. Humphrey, Friendship.

CRANBERRIES is published monthly by the Taylor Publishing Co., Wellwyn Drive, Portland CT 06480. Second class postage is paid at the Portland, Conn., Post Office. Price is \$8 a year, \$15 for two years, 80 cents a copy in the U.S.; \$9 a year in Canada; \$10 a year in all other countries. Copyright 1980 by Taylor Publishing.

ISSN: 0011-0787

# Cranberry pollination in British Columbia

By D.W. ANDERSON  
and G.W. EATON  
Department of Plant Science  
University of British Columbia

Pollination is a vital factor in commercial cranberry production.

The proportion of uprights flowering and fruit-set are two yield components which account for much of variability in cranberry yield since neither limits the other. By increasing fruit-set and numbers of uprights which flower, one could expect proportionate increases in yield.

These two yield components could possibly be manipulated by improved pollination, plant breeding and cultural practices.

**PLACEMENT** of honeybees (*Apis mellifera* L.) in commercial bogs has been used extensively to aid pollination and fruit-set. There is evidence, however, which suggests that the cranberry flower is not particularly attractive to honeybee foragers.

The total amount of pollen collected as well as the proportion of cranberry pollen to total pollen varies considerably, depending on the colony and the extent of bloom. Furthermore, peat lands used for cranberry production are usually characterized by many other Ericaceae species, as well as flowering plants in other families. This results in competition between cranberry flowers and those of other species for pollinating insects.

The best results using honeybees are generally obtained by placing the hives in bogs during the period of full bloom, usually late June and early July.

The observed variation in honeybee efficiency suggests

that agents such as other insect pollinators or wind may play a role in determining cranberry fruit-set.

In cranberry pollination studies, it has been recognized that agitation of flowers to release pollen to the wind may be the major contribution of pollinating insects.

A wide variety of insects, encompassing most of the major orders, have been implicated as pollinators of various plants. Wild bees, moths, syrphid flies and other nectar and pollen feeders appear of greatest importance, but unlikely pollinators such as wasps, beetles and mosquitos have also been identified as the major pollinators of certain plants.

**A SURVEY OF THREE** British Columbia cranberry bogs was undertaken in 1979 with the intention of determining the insect fauna present and evaluating possible pollinators.

Insects were collected from two commercial bogs and one abandoned bog in Richmond, British Columbia. Mechanical harvesting was by the wet method in one commercial bog and the dry method in the other. Insect collections were made using a gasoline-powered vacuum pack (an air suction device) and an ultraviolet light trap.

Collections were made on two occasions, June 26 and July 4, 1979, during the period of full bloom. It was felt that the different bogs, collection methods and collection dates would result in a wide variety of insects for study.

Each species, represented by more than 10 individuals in a collection, was analyzed for the

presence of cranberry pollen, as were hand-netted honeybees and pollen bees. On both commercial bogs, and probably the abandoned bog, the cranberry cultivar was McFarlin. Honeybee colonies were present in all three bogs.

Over 1,200 insects were collected, representing nine orders and 38 families. As expected, collections varied considerably with location, collection method and collection date. Midges and small flies were particularly abundant.

Hand-netted honeybees and bumblebees carried many cranberry pollen tetrads even though pollen loads were rarely observed on the corbiculae. Of all the other insects analyzed, only one species (a noctuid moth) carried small amounts of cranberry pollen.

**CLOSE OBSERVATIONS** of cranberry flowers at various times and locations revealed that honeybees and bumblebees

(continued on page 12)

## Wanted

### Bailey Separators

FRANCIS J. FARRELL  
23 Blueberry Way  
Marion MA 02738  
(617) 748-0031  
(617) 748-1415

# Gypsy moths stir worry

By CAROLYN CALDWELL

*Important. Check your bogs for gypsy moth caterpillars. There are severe infestations reported on the Cape and Hanson and Scituate areas. Treat with Sevin or Parathion spray.*

That was the radio message delivered by Dr. Charles Brodel, entomologist at the Cranberry Experiment Station, East Wareham, Mass., recently.

Saying there has "most certainly" been an increase in the voracious insects over last year, Brodel notes that counts have been reported of "100 to 150 caterpillars for 25 sweeps. It is a matter of opening your net and seeing them completely black and knowing you have to treat."

**THE CRANBERRY** Station recommends treatment when caterpillars number nine per 50 sweeps.

"The problem is the gypsy moth likes to eat the most tender tissue, which is the terminal bud," Brodel says. "When they attack the terminals, they eat all but the outer scales.

"So the danger is if you allow them to stay on the bog, they can devastate it."

Large infestations of gypsy moth caterpillars will devour new growth, leaves, flowers and blossoms and even sever the new part of the stem.

With the aid of aerostatic hairs, the tiny first stage caterpillars are easily wind-borne. The pest thrives on oak leaves but will attack nearly any foliage.

Gypsy moth caterpillars are usually noticed in southeastern Massachusetts by mid-May. They are about ¼ inch long when they first hatch and eat only at night. By the end of June, they grow to 2 inches and can eat 24 hours a

day. The caterpillars mature in early July and go into a two week pupation. The moths emerge in late July, early August. Oval egg masses, 1½ by ¾ inches and covered with buff colored, female abdominal hairs, are laid soon after.

**UNDER CROWDED** conditions, the caterpillars spread to cranberry bogs.

"They can develop and mature on the bog but can't survive as a species there," Brodel said.

On the heavily infested parts of Cape Cod, caterpillars are everywhere — on sheets drying on clotheslines, windows, tents, cars and anyone who happens to be standing around too long.

(New Jersey CRANBERRIES

correspondent Elizabeth M. Carpenter reports that while gypsy moth caterpillars are present in cranberry growing country there, she would not call the infestation severely heavy or as bad as in some recent past years.)

Massachusetts grower Douglas Beaton has some bogs on the Cape with the gypsy moth problem. In mid-May on his Sandwich bog, he found 75 caterpillars 3/8 to ½ inch long in 25 sweeps. He used Sevin XLR (extra long residue), two quarts per acre.

"I couldn't see any damage yet," he said then. "They're more of a nuisance at this stage."

The gypsy moth is a European import that accidentally escaped from a Massachusetts silkworm research lab

(continued on page 12)

## 37 Acre Cranberry Bogs For Lease or Sale

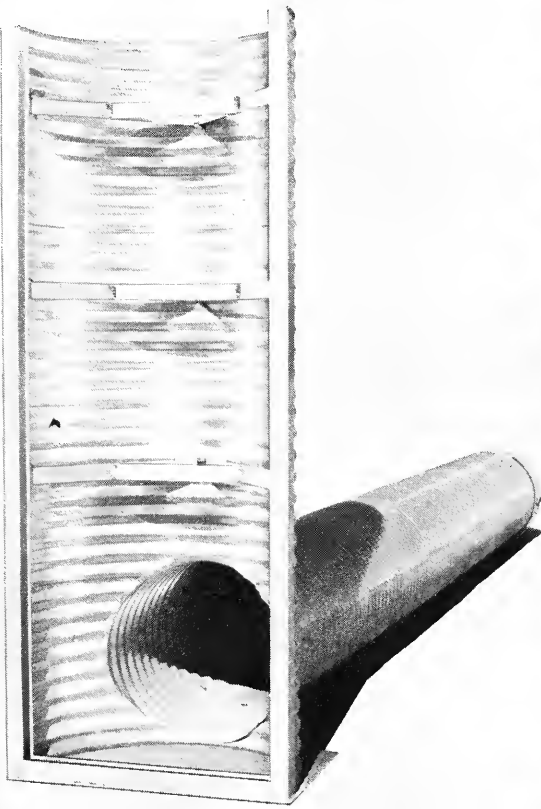
- Increase Your Cranberry Acreage and Profits by Rebuilding Old Bogs While Market Is Strong and Growing.
- Excellent Site Location With Easy Access to 4 Major Highways & Ocean Spray Plant.
- New Engineering Plans Include 4 Separate 5+ Acre Bogs, Reservoir, Sprinkler System, 1,060 ft. Alum Ovrhd Pipe With 20 Rain Birds on Hand. City Water, Electric, Paved Roads.
- Excellent Uplands Water Supply & Drainage to Taunton River.
- Conservation & Wetlands Approved.

**OWNER WANTS A QUICK OFFER — TERMS AVAILABLE**

Write P.O. Box 1082

Taunton, Mass. 02780





## Install the flow gates now that generations will rely on.

Felker flow gates are built to last, thanks to famous Felker welded construction, generously braced designs, and highest quality materials. Manufactured in aluminum only.

Standard sized for conduits from 15- to 48-inch diameters with riser widths from 24- to 72-inches, height as required. Single, double and triple log channel designs, other sizes available upon application. For virtually any size or water control application, Felker Brothers are flow gate specialists. **Send for free bulletin.**

OUR  
STRENGTH  
IS METAL



**FELKER BROTHERS CORPORATION**

Marshfield, Wisconsin 54449

PHONE 715-384-3121 TWX 510-370-1846 TELEX 29-3451

## For cranberry in Wisconsin

# Foliar nutrient concentration studies

1. Measured concentrations in 80 samples from 17 marshes.<sup>1</sup>

By Malcolm N. Dana<sup>2</sup>  
Department of Horticulture  
University of Wisconsin-Madison

A standard nutrient element concentration for cranberry plants has not been reported. To provide background data for a proposed standard, soil and tissue samples were collected from all the cranberry growing areas in Wisconsin. Soil samples were processed by the Soil and Plant Analysis Laboratory, University of Wisconsin-Madison. The soil reaction (pH), available phosphorous (P) and available potassium (K) were determined by standard methods. Tissue concentration of nine essential elements were determined by the laboratories of the Wisconsin Alumni Research Foundation using flame photometric procedures.

Samples were collected from 17 marshes in the northwest, northeast, southwest and southern cranberry growing areas. Eighty tissue samples of *new* shoot growth (leaves and stems) were harvested between June 21 and July 3. The samples were cleaned, dried to constant weight, ground and analyzed. Ninety two soil samples were taken at the same marshes and during the same period as the tissue samples. Sixty three of the soil samples and tissue samples were taken from 14 different marshes but from the same location within beds to provide for evaluation of the extent of relationship between soil availability of P and K and tissue concentration of the nine elements measured.

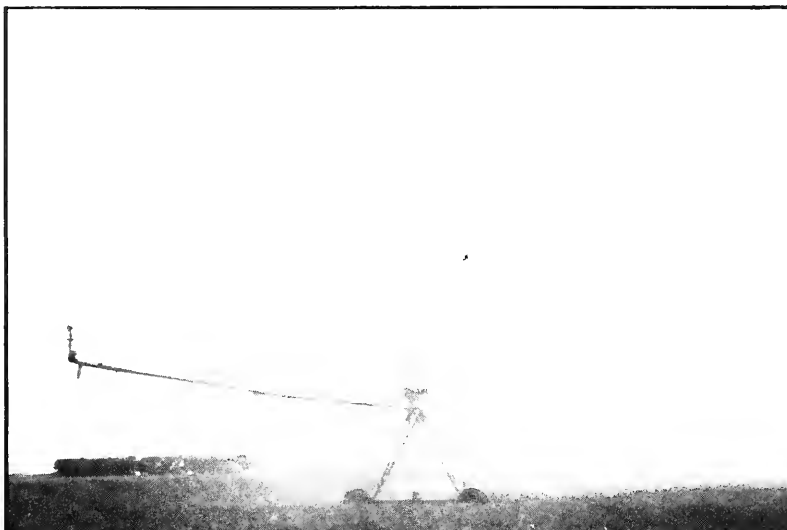
Samples were taken randomly from good producing vines and from "normal" soil areas. Poorly drained areas and areas near ditches were avoided.

The summary data are shown in Table 1.

None of the vines in any sample area showed visible symptoms of deficiency. The low end of the range for

phosphorous (0.10%) is below the accepted standard that we have determined for optimum growth in cranberry.

The low correlation coefficients between soil P and K and tissue P and K indicate that the levels of soil P and K at the low end of the range did not restrict the absorption of these two elements and that high



## Straight talk about financing irrigation equipment



Farming is  
everybody's bread  
& butter.

Choosing a lender to finance irrigation equipment is nearly as important as choosing the equipment itself.

Look to a lender who understands agriculture and your area. Who understands the potential return from irrigated land and the kind of money it takes to do an irrigation job right.

Look for equipment financing where you pay interest only on the exact amount of money you borrow and only for the number of days you actually use it.

Look to Production Credit Association.

**Production Credit Associations of Wisconsin**

soil levels for these elements did not produce high tissue levels in cranberry plants.

The concentrations of iron and manganese varied widely among samples. Apparently the cranberry plant has a wide tolerance for these elements as no evidence of toxicity problems have been observed.

The next two parts of this report will provide additional tissue analysis data that will be summarized with proposed nutrient concentration standards in Part 4.

<sup>1</sup>This is the first of a four part series leading to proposed standards for cranberry foliar analysis interpretation.

<sup>2</sup>The sampling and preparation of samples for analysis were done by Dr. Ted Greidanus.



# weather watch

## MASSACHUSETTS

May was just slightly on the cool side here at East Wareham, averaging 0.3 degrees a day below normal, but the month was warm at nearly all other reporting stations. Maximum temperature was 84 degrees on the 25th and minimum 33 degrees on the 9th. Warmer than average days occurred on the 15th, 24th, 25th, 26th and 28th. Cooler than average days were from the 2nd through 5th and the 22nd.

Rainfall totaled 3.10 inches or about 1/3 inch below normal. There was measurable precipitation on eight days with 1.64 inches on the 12th as the greatest amount. We are

3-1/3 inches below normal for 1981 and slightly more than 2 inches ahead of 1980 for the same period.

There was a total of three evening frost warnings issued in May, with the third week being the problem. There were warnings on the 17th, 18th and 23rd, with close calls on the 19th, 20th and 22nd. Temperatures were in the 22-27 degree range at that time on May 9 there were temperatures in the 18-20 degree range and probably some injury on the lower Cape. The total of three warnings compares to nine last year, none in 1979 and 1978, 15 in 1977 and 24 in 1976.

Unlike last year, there doesn't appear to be any winterkill, but there is some spotty leaf drop from oxygen deficiency. Bogs are beginning to show considerable new growth, but overall do not have as nice an appearance as last year. Also, as indicated, there is some frost injury and may be some early winter cold injury. Orthene was granted an emergency registration again this year for control of brown

Table 1. Concentrations of mineral elements in soil and tissue  
from 17 cranberry marshes in Wisconsin.

Element	Range	Mean	Std. Dev.	Coeff. of Var. %
<b>Tissue:</b>				
P % D.W.	0.10-0.42	.18	.04	21
K % D.W.	0.66-1.25	.84	.15	17
Ca % D.W.	0.28-0.62	.45	.08	17
Mg % D.W.	0.10-0.19	.15	.02	14
Fe ppm	36-345	97.6	54.0	55
B ppm	8-34	21	3.3	15
Cu ppm	1.3-12.2	6.1	2.1	34
Zn ppm	15-72	27	9.1	34
Mn ppm	22-370	125	73.0	58
<b>Soil:</b>				
P kg/ha	27-300	148		
K kg/ha	60-275	147		
pH	3.7-6.6			
<b>Correlations:</b>				
Soil P vs. tissue P	r = .19			
Soil K vs. tissue K	r = .24			
Tissue K vs. tissue Mg	r = .27			

spanworm. The worms are just hatching and some spraying has started.

On June 1, 1981, only three weather factors of a possible 16 favor the keeping quality of this year's cranberry crop. Quality is likely to be fair to poor. As in 1979, and again back in 1972, when an identical 3 points favored good keeping, special consideration needs to be given this year to fungicide controls. Directions for use should be followed carefully, as detailed in the Insect and Disease Control Chart.

I.E.D.

### NOVA SCOTIA

We have had reports of frost injury to some horticultural crops, including highbush blueberries and early apple varieties. Fortunately, lowbush blueberries and cranberries are just a little later, so at this point (May 26) we think things look reasonably good.

Good bee activity has been observed in the pollination of blueberry blossoms. We have plenty of moisture at this date.

I.V.H.

### PROMOTIONS MADE

Elizabeth White has been promoted to associate business unit manager, cranberry drinks, at Ocean Spray. She joined the cooperative in May 1979 as a marketing staff assistant.

Marie Dent, formerly internal

systems auditor, has been promoted to manager of computer operations.

Al Bellefontaine, previously manager of electronic data processing, has been assigned to the newly created position of administrative manager of management information systems.

# Niemi Electric Co.

ROBERT NIEMI

## ELECTRICAL CONTRACTORS

### HEAT, LIGHT and POWER WIRING

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL



TEL. 295-1880

Robert Niemi

Pinchurst Dr.

Wareham, Mass.

A MOST COMPLETE INVENTORY OF IRRIGATION ACCESSORIES



# LARCHMONT

ENGINEERING & IRRIGATION, INC.

P.O. Box 66, 11 Larchmont Lane, Lexington, MA 02173 (617) 862-2550

IRRIGATION EQUIPMENT DESIGNED ESPECIALLY FOR THE CRANBERRY INDUSTRY

FOR EXAMPLE:

- Gorman-Rupp Self Priming Electric Sprinkler Pumps*
- Proven Quick Couple Riser*
- Ingersoll-Rand Water Harvest Pumps*
- Aluminum Insert Coupling For 4" Poly Pipe*

Contact:

Larchmont Engineering  
Phil Tropeano, President  
(617) 862-2550 (Call Collect)



Contact:

Bill Stearns, Plymouth, Mass.  
(617) 746-6048  
(617) 746-2610



## NO-DRIP WIPER . . .

(continued from page 3)

A protective front flap made from a carpet catches excess material, preventing splashing on the vines.

A lever on the handle opens up the spicket to soak the roll with herbicide. Also, the roll can be adjusted from the handle for weeds of varying heights.

"Hopefully, we'll use Roundup—if it's approved," Peck said. "If not Roundup, then we'll have to use Weedar."

## CRANBERRY POLLINATION IN BRITISH COLUMBIA . . .

(continued from page 6)

were the only insects visiting the flowers. Considerable agitation of the flower, which released pollen, accompanied each bee visit.

Bees, especially honeybees, are probably the most useful insect pollinators of cranberry since other insects were not observed to carry pollen or visit flowers. It appears likely that wind pollination is also important.

These studies appear to confirm that the placement of honeybee colonies in cranberry

bogs during the bloom period improves fruit-set and yield.

## GYPSY MOTHS . . .

(continued from page 7)

in 1868. Without its natural enemies to keep it in check, it quickly became a pest. By 1914 gypsy moth caterpillars started causing significant damage in the Cape Cod cranberry region. Widespread use of DDT knocked back their populations for a number of years after World War II.

**LAST YEAR** over five million acres of trees were stripped of their leaves in the northeast, including 900,000 acres in Massachusetts. The Department of Environmental Monitoring has been predicting more than a million acres of defoliation in the state this year. The U.S. Department of Agriculture is worried the pest may be spreading to the Midwest and even California on automobiles and other vehicles.

# letters

### KEPT UP WITH CRANBERRIES

I've been away but I've kept up with CRANBERRIES.

I like your coverage of the women at the "Big E." I was on duty three days—but not when you were there. Thanks, anyhow.

I also liked your cover story of the children's "Cranberries" book. Those gals are from my hometown and I know them well. They did a good job.

Alice Merry  
Duxbury, Mass.

### A MAN FROM BOSTON

My family has a variety farm and about 10 years ago, a man from Boston introduced us to cranberry growing. We now have 300 acres of cranberries which we sell to Ocean Spray.

Last summer I was in Nova Scotia and I bought the book, "Cranberry Connection." Now I would like to order two more books for gifts.

Ms. L. Savage  
Richmond, B.C.

## STAY INFORMED

subscribe to CRANBERRIES

\$8 a year; \$15 two years

Send check or money order to.

CRANBERRIES

P.O. Box 249

COBALT CT 06414

# DIRECTORY for Cranberry Growers

## The CHARLES W. HARRIS Company

451 Old Somerset Avenue  
North Dighton, Mass  
Phone 824-5607

AMES

Irrigation Systems

RAIN BIRD

Sprinklers

HALE

Pumps

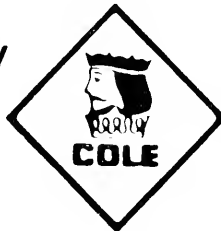
Highest Quality Products

with Satisfaction Guaranteed

## WISCONSIN CRANBERRY HEADQUARTERS FOR

### SEVIN XLR

DEVINOL 10G \* EVITAL \* GUTHION  
DIAZINON 14G \* PARATHION \* ETHREL



## Cole Chemical Supply

DIVISION OF *Hopkins* AGRICULTURAL CHEMICAL CO

P.O. BOX 7211, MADISON, WISCONSIN 53707

608 221-1581



For a change-of-pace barbecue, try turkey. Choose a turkey breast for economy and flavor. To insure it stays moist throughout long grilling time, be sure to marinate and baste frequently. An excellent marinade is a sauce of honey, sherry, whole berry cranberry sauce and ginger. Besides being delicious, it's a great buy; a 6-lb. breast will feed 12.

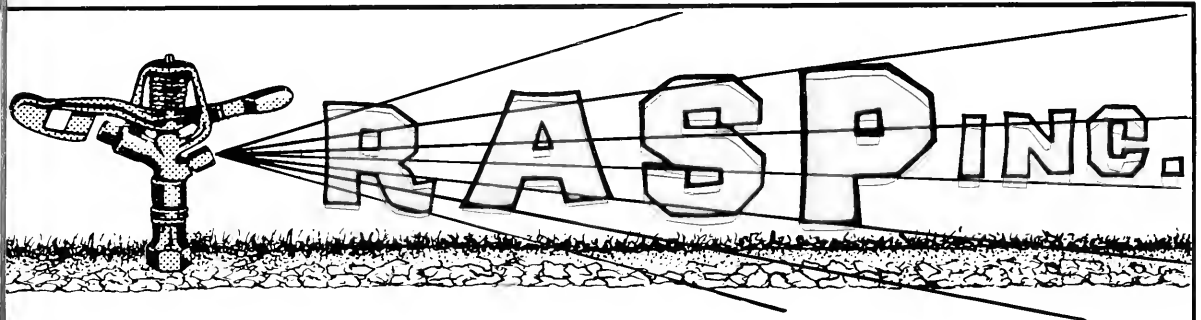
**SUMMER** feasting features a favorite twosome in a new guise. Breast of turkey is grilled and basted with a delicious cranberry marinade.

**GRILLED  
TURKEY  
BREAST**

1 cup orange juice  
1 cup ginger ale  
½ cup ketchup

¼ cup oil  
¼ cup honey  
¼ cup sweet sherry  
1 can (16-oz.) whole berry  
cranberry sauce

(turn page)



**AUTHORIZED AGWAY REPRESENTATIVE**

**LICENSED SPRAYING OF PESTICIDES (Seasonal)**

WITH A COMPLETE LINE OF:

**CRANBERRY INSECTICIDES • FUNGICIDES  
HERBICIDES • MITICIDES • and FERTILIZERS  
IN STOCK!**

**ROBERT A. ALBERGHINI – SPRAYING**  
RFD 5 PLYMOUTH STREET, CARVER, MASS. 02330  
TELEPHONE: 866-4429

For further information, call evenings after 5:30

**AGWAY**

**AGWAY**

- 1 teaspoon ground ginger
- 1 teaspoon salt
- Pinch cayenne pepper
- 1 5-6 lb. whole turkey breast  
(fresh or frozen)

Combine all ingredients except for turkey breast and mix well. Marinate turkey in sauce for 3-4 hours or overnight if possible. Drain. Grill over charcoal fire about 6-8 inches from coals to prevent burning. Place turkey breast skin side up on a greased grill. Turn often while basting frequently with sauce. Total grilling time should be about 2 hours. To check for doneness, slit breast. If no pink meat remains, breast is done.

Read CRANBERRIES

## Mike's Portable Welding

Cranberry Equipment  
Built and Repaired

*Clippers, Flumes  
and Wheel-offs,  
all types of equipment*

**FREE ESTIMATE**

(617) 748-0014

(617) 748-1415

(617) 748-0031

## CRANBERRY GROWERS REALTY

Listings of buyers and  
sellers welcomed on cran-  
berry acreage and upland.

Appraisals

**DOUGLAS R. BEATON**

E. Sandwich, Mass.  
02537

(617) 888-1288

## SIGNS LEASE ABOARD THE MAYFLOWER II

Martin B. "Hap" Person, president of Gage-Wiley & Co., is not one to settle for routine ceremony.

When it came time for the stock brokerage firm he heads to sign a lease with Village Landing, Plymouth, Mass., recently, "Hap" arranged for the act to take place in one of Plymouth's prime tourist attractions, Mayflower II. The lease was signed with appropriate quill pens in the

stateroom identical to the one in which the Pilgrims signed the Mayflower Compact.

Gage-Wiley, which has been serving Massachusetts growers, among others, for 45 years, became the first office space tenant for Village Landing, which is scheduled for completion in late September.

**CRANBERRIES**

**P.O. Box 249**

**Cobalt CT 06414**

\$8 for one year; \$15 for two years

## Bog construction

## Vine setting

## Flumes and flume work

## Bog sand



## Nemasket Construction Co., Inc.

**275 Wareham St.,  
Middleboro MA 02346**

**(617) 947-1723**

# regional news notes

## Massachusetts

By IRVING DEMORANVILLE

Dr. Chester E. Cross, director of the Cranberry Experiment Station, has announced his retirement effective Dec. 31, 1981.

Chet has worked here for over 40 years and has been director since Sept. 1, 1952. The Cape Cod Cranberry Growers Assn. has decided to designate the annual meeting as Dr. Chester E. Cross Day with appropriate ceremonies. The date of the annual meeting is Tuesday, Aug. 18.

Prof. Stan Norton was chairman of the Technical Committee Meeting on Mechanical Harvesting and Handling of Fruits and Vegetables at Penn State University this year.

Dr. Karl Deubert visited the EPA's Hazard Evaluation Division in Arlington, Va. He presented a seminar on Cranberry Pesticide Management Practices and met with the group to discuss problems of pesticide use.

Dr. Robert Devlin has been all over the place. He attended the Northeastern Weed Science Society meeting in Philadelphia, where he presented two papers on weed research.

Then he was an invited speaker at the Ocean Spray Cranberries Inc. stockholders meeting and workshop in Orlando, Fla.

Then he went to Washington, D.C., to testify at a hearing on 2,4,5-T. Later he returned to Washington to attend a directors' meeting of CAST.

He also attended the annual meeting of the Weed Science Society of America in Las Vegas, where he presented a paper and served on the Herbicides for Minor Crop Use Committee.

### NAME NEW MANAGER

Malcolm E. Kirkland has joined Ocean Spray Cranberries as plant manager of the company's Sulphur Springs, Tex., facility.

Kirkland comes to Ocean Spray

after serving in a similar position with Bishop Baking Co. of Birmingham, Ala. He previously was

with Frito-Lay Inc. He is a graduate of Texas Tech University.

## Vines for Sale

1982 Delivery

### Ben Lear or Stevens

\$2,000 a ton

25% discount on orders received by July 15, 1981 with \$500 per ton deposit. FOB Gordon, Wisc.

Paul Jonjak

(414) 743-8500

P.O. Box 65

(715) 376-2799

Sturgeon Bay WI 54235



## Crane for Hire

Three quarter yard crane with matts, clam and dragline. Have had years of experience in digging ponds, stumping and general bog work.

GEORGE R. NAVA CO.

11 Maple Avenue

Kingston, Mass. 02364

Call 585-4514



Since 1933

Members of  
the SICPC

Gage-Wiley & Co., Inc.

STOCKS & BONDS

40 Court Street, Plymouth, Mass. 02361

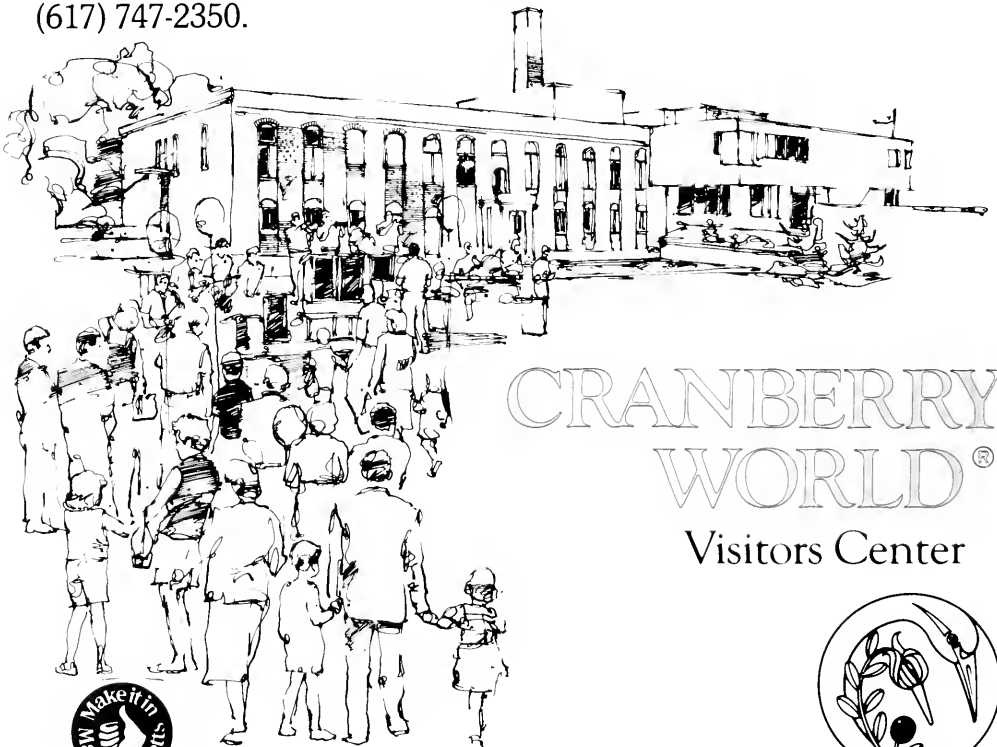
617-746-3322 Call Toll Free in Mass 1-800-242-0263



# WHAT'S IN A BOG?

Cranberries. A delightfully delicious fruit well worth learning about at Ocean Spray's fascinating Cranberry World® in Plymouth. Walk around working cranberry bogs. Look at cranberry art and antiques. Listen to our boardwalk concerts. And view our changing monthly art exhibits. Free refreshments, too. And, best of all, free admission for everyone. Come find out what's in a bog. It'll boggle your mind.

Open daily April 1 through November 30th, 9:30 a.m. to 5 p.m. Free Admission. Near Plymouth Rock. Group reservations required. For information write Cranberry World, Ocean Spray Cranberries, Inc., Plymouth, Mass. 02360 or call (617) 747-1000 or (617) 747-2350.



CRANBERRY  
WORLD®

Visitors Center





# CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

Volume 45, No. 8

August 1981



**Silt bottom bog . . . 3**

★★★★★

**New packaging . . . 8**

Library UMass  
Serials Section  
Amherst MA 01002

# Silt subs for peat

## Cement firm uses byproduct

By CAROLYN CALDWELL

Silt, a practically useless by-product of sand and gravel operations, may soon prove to be a "valuable commodity" in the building of cranberry bogs, according to Al Carr, foreman of Southeastern Construction Co.

With the aid of engineering and cranberry specialists, Southeastern, a Lakeville, Mass., based cement block company, is experimenting with an original method of building bogs—by using silt. It is transforming an exhausted gravel pit into an upland bog, covering the bog with a foot thick layer of silt,

which, it is expected, will possess the retention properties of peat.

Consulting engineers E.J. Flynn Inc. drew up the plans for the 18.6 acre bog. They calculate that water from nearby 22 acre Cedar Pond will feed the bog.

"THIS IS OUR first cruise," Carr said. "We've never built bogs before. It's a very interesting project from our point of view. We're very, very enthusiastic."

Three acres are being prepared for planting this year.

The bog is being constructed with a one foot thick layer of silt over the natural soil, topped by 5 inches of sand. The dikes have a silt core capped by "junk material" too fine for cement blocks.

After more than 50 years of excavation and screening aggregate for the manufacture of cement blocks, vast hills of silt have been stockpiled at Southeastern Construction.

"Silt is undesirable for cement blocks," Carr noted. "Heretofore we had trouble getting rid of it. I can't tell you anywhere silt is used except solid waste disposal sites and now bogs."

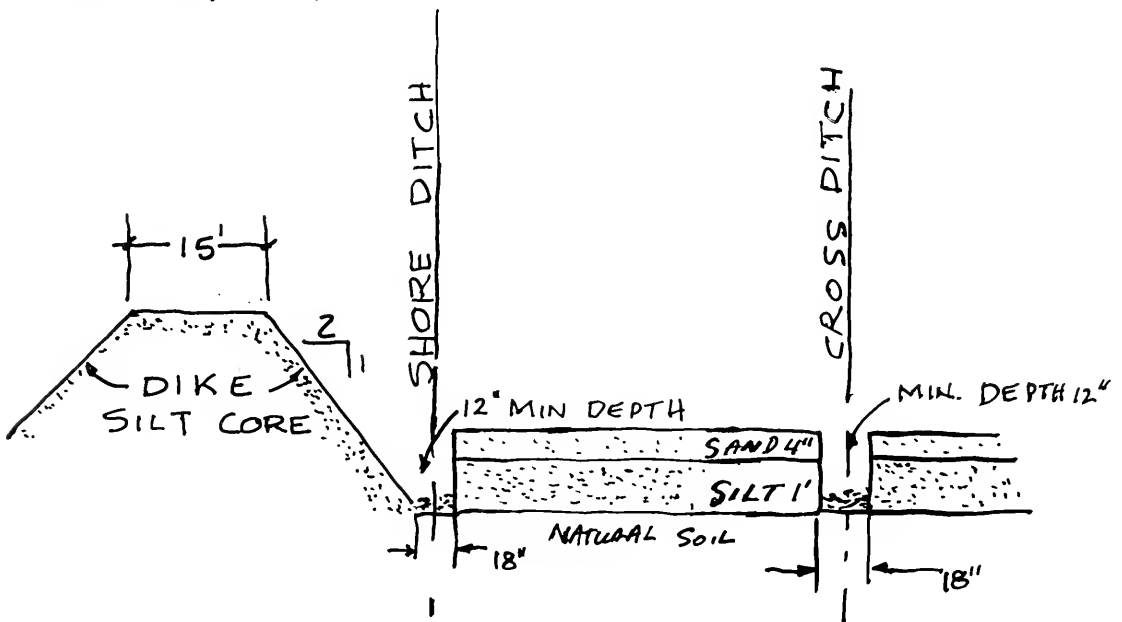
In his lab, Carr demonstrated how the various excavated materials are standardized according to particle size.

"Our business goes by sieve analysis," he said. "This (silt) is not as fine as clay. This is

### COVER PHOTO

AL CARR sits atop a dike of silt and sifts some of the material through his fingers. Story on this page. Other photos on the next page.

(CRANBERRIES photo by Carolyn Caldwell)



A ROUGH DRAWING of a cross section of the experimental bog.



**THESE** photos by **CRANBERRIES** correspondent Carolyn Caldwell show the experimental silt bog being prepared.

definitely not clay.”  
Silt particles, half the size of hourglass sand, will pass through a sieve with 100 holes per square inch. Used as a lining for cranberry bogs, the fine particulate matter compacts to form an almost impervious layer that will hold water. The result, Carr

believes, is a situation similar to that of a peat bottom bog.  
This particular bog is being built on upland, 10 feet above the water source. It may not need as much frost protection as lowland bogs do. The bog is designed so that one pump is needed to feed the five sections.

**“WE OWN THE WATER,** the land, the silt, the sand,” Carr said. “So when you add up all our assets, why not?”

Carr said his company’s plans have met with “almost universal concurrence” in Lakeville. “Before we had to leave topsoil and plant  
**(continued on next page)**

## For cranberry in Wisconsin

# Foliar nutrient concentration studies

II. Mineral element concentrations in cranberry plants related to season of sampling and tissue sampled.

By Malcolm N. Dana  
Department of Horticulture  
University of Wisconsin-Madison<sup>1</sup>

The determination of mineral element concentrations in plant tissues has become a standard tool for the development of soil management programs with several crops. Successful application of this tool relies on the establishment of standard conditions of sampling and the identification of appropriate tissues for revealing sensitivity to changes in elemental concentration.

This study was conducted to gain

knowledge about the seasonal changes that may occur in the nine mineral elements (P, K, Ca, Mg, Fe, B, Cu, Zn, Mn) and to measure the sensitivity of different parts of the plant to seasonal and locational differences. Three locations for sampling were selected in healthy, productive vines. Two areas were at opposite ends of a flooding section—one end of the section was planted on a soil with 100-120 T/A and the other end had 16-30 T/A of organic matter. The third plot area was in another marsh several miles distant from areas one and two. The soil contained 30-40 T/A organic matter. Each of the sampling areas was divided into 3 plots of 400 square feet each for sampling.

Soil samples were taken from the surface 4 inches of soil by taking four random cores from each plot at each sampling. The samples were delivered to the Soil and Plant Analysis Laboratory for determination of soil reaction, organic matter, available phosphorous and potassium.

Plant tissue samples were taken by

clipping all the tissue in small areas in each replicate at each sampling. Each sample consisted of approximately 100 uprights with their associated older woody tissue. The plant material was taken to the laboratory where the new seasonal growth was separated from the previous seasons' growth. The samples were washed in distilled water and oven-dried to constant weight at approximately 90 degrees F. At this point the leaves were separated from the stem tissue and each tissue was analyzed separately. Analyses were made by a commercial laboratory using flame spectrophotometry with standard procedure.

Tissue samples were obtained on June 23, July 31, September 4 and October 31 in the first year; June 21, July 26 and August 28 of the second year, and a single date, July 9 of the third year. Soil sample data are available for the September 4 and October 31 dates in year 1, all three dates in year 2 and the one date in year 3.

(continued on page 6)

## SILT SUBS FOR PEAT . . .

(continued from page 3)

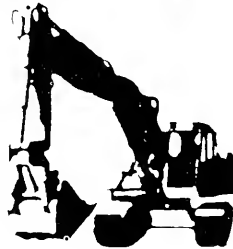
trees to restore the land back to nature. Now we can have a marketable product."

With the equipment and manpower resources of a well established construction company, the five full time employees are able to produce their own virtuoso performance when it comes to building bogs.

"There's James Viggers," said Carr, pointing to the bulldozer operator. "He's the artist. We provide a '48 Cat D-7 with a cable blade. For grading cranberry bogs, it's the finest doggone thing you can get."

Cement blocks are still the company's top priority, Carr said. Southeastern Construction will build its bogs but growing cranberries will be left to the experts. Arrangements are being made with Decas Cranberry Co. to take charge of the planting and agricultural management.

## M. C. Howes



MERT HOWES  
295-5542

619 COUNTY ROAD  
W. WAREHAM, MASS.  
02576

Specializing in  
Agricultural Construction

*Flumes*  
*Canals*  
*Land clearing*  
*Sanding*  
*Water holes*  
*Ditching*  
*Dikes*  
*Grading*

# editorial



# letters

## COMMENDS CORRESPONDENT FROM NEW JERSEY

Ms. Carpenter is to be commended for her excellent interview with Earle Hill.

Mac Hill  
Egg Harbor, N.J.

## LOANS FOR FARMERS

The Farmers Home Administration has loan funds available for farmers for the purchase and operation of farms, notes the Massachusetts Farm Bureau Federation.

## CRANBERRIES

THE NATIONAL CRANBERRY  
MAGAZINE

VOLUME 45—NO. 8  
August 1981

Send correspondence to:

P.O. Box 249  
Cobalt CT 06414  
Phone: (203) 342-4730

Bob Taylor, Publisher/Editor

## ADVISORS, CORRESPONDENTS

MASSACHUSETTS—Dr. Chester F. Cross, Director, Massachusetts Cranberry Experiment Station; Irving Demoranville, Extension Cranberry Specialist, Mass. Cranberry Station; Carolyn Caldwell, Rochester.

NEW JERSEY—Philip E. Marucci, Cranberry and Blueberry Specialist, Cranberry and Blueberry Laboratory, Chatsworth; Elizabeth M. Carpenter, Chatsworth.

NOVA SCOTIA—I.V. Hall, Botanist, Research Station, Kentville.

OREGON—Arthur Poole, Coos County Extension Agent, Coquille.

WASHINGTON—Azmi Y. Shawa, Horticulturist and Extension Agent in Horticulture, Coastal Wash. Res. and Ext. Unit, Long Beach.

WISCONSIN—Tod D. Planer, Farm Management Agent, Wood County; Joan E. Humphrey, Friendship.

CRANBERRIES is published monthly by the Taylor Publishing Co., Wellwyn Drive, Portland CT 06480. Second class postage is paid at the Portland, Conn., Post Office. Price is \$8 a year, \$15 for two years, 80 cents a copy in the U.S.; \$9 a year in Canada; \$10 a year in all other countries. Copyright 1981 by Taylor Publishing.  
ISSN: 0011-0787



## FOLIAR NUTRIENT . . .

(continued from page 4)

**THE SOIL TEST DATA** for available phosphorous and potassium in the 3 plot areas are presented in Table 1. Soil phosphorous levels were low in area B during the first season but this situation was corrected with a fertilizer application in the spring of the second season. Potassium levels ranged from a low of 67 Kg/ha to a high of 179 Kg/ha. Area B maintained levels below the arbitrarily chosen standard of 112 Kg/ha available K.

The differences among the three replicate samples within a plot area for some dates is of interest, e.g., Area A, July 26 and Area C, October 31 for phosphorous. There was a 100 percent difference in available P within a distance of 50 feet at those locations.

The summary of the analyses for mineral element concentration in the various tissues is presented in Table 2. Differences among dates for tissues and elements were consistent for all three locations and replicates within locations. Therefore, the data are presented as means of nine samples

for each element, date and tissue. Missing data for old leaves on 10/31 in one year and 7/26 and 8/28 the second year reflect the absence of leaves due to normal leaf drop.

Phosphorous tended to decline seasonally in all tissues with the sharpest changes being evident in the new stem tissue. The minimum levels found in new leaves (.14 percent) were at the level of sufficiency established in earlier laboratory, greenhouse and field studies.

The greatest changes in potassium (K) concentrations were found in the

new stem tissue with less changes in new leaves. It has long been known that petioles are often the tissue in crops that show the largest changes in potassium concentration seasonally and in response to soil supply. The cranberry is nearly devoid of petioles. Apparently the stem axis in cranberry serves in the same general way as the petiole of grapes and other comparable dicotyledonous plants. Potassium declined from June to September in new tissues with erratic data from old tissues.

(continued on page 10)

# DIRECTORY for Cranberry Growers

## The CHARLES W. HARRIS Company

451 Old Somerset Avenue  
North Dighton, Mass  
Phone 824-5607

AMES

*Irrigation Systems*

RAIN BIRD

*Sprinklers*

HALE

*Pumps*

Highest Quality Products

with Satisfaction Guaranteed

## PREPARE FOR FALL FROST SEASON

WITH

# CHATTERBOX™

## FROST WARNING MACHINE

- \* Call your bog anytime from any place by telephone.
- \* Call your bog anytime from any place by telephone for electronic voice giving you exact temperature reading.
- \* Will call you with frost warning at any temperature you desire.
- \* Affordable – Save 45 bbl. or more and it pays for itself.
- \* Demonstration or printed material by request.
- \* On display at Annual Growers Meeting Aug. 18, 1981.

Contact

## John C. Decas

295-0147

295-2299

Table 1. Available soil phosphorus and potassium for 6 dates over 3 years. Lbs/A.

Date Sampling	Sampling Area								
	A			B			C		
	Replicate			Replicate			Replicate		
	1	2	3	1	2	3	1	2	3
Phosphorus (P)									
Sept. 4	134	118	106	75	100	29	178	134	167
Oct. 31	106	108	86	46	44	37	246	190	121
June 21	156	106	140	106	106	112	122	101	145
July 26	200	145	106	121	84	78	106	121	95
Aug. 28	121	134	140	121	134	74	100	145	128
July 9	121	100	112	100	90	85	106	145	134
Mean	138	119	115	96	81	69	143	140	132
Potassium (K)									
Sept. 4	179	151	128	95	100	73	124	151	145
Oct. 31	156	112	128	76	67	84	112	122	122
June 21	179	112	179	100	78	95	156	140	134
July 26	140	140	151	89	67	112	151	140	134
Aug. 28	112	179	179	84	112	89	128	140	140
July 9	117	118	156	95	100	100	156	140	156
Mean	143	134	150	89	87	93	138	138	138

# Mike's Portable Welding

Cranberry Equipment  
Built and Repaired

*Clippers, Flumes  
and Wheel-offs,  
all types of equipment*

**FREE ESTIMATE**

(617) 748-0014

(617) 748-1415

(617) 748-0031



Since 1933

Members of  
the SICPC

**Gage-Wiley & Co., Inc.**

**STOCKS & BONDS**

40 Court Street, Plymouth, Mass 02361

**617-746-3322** Call Toll Free in Mass **1-800-242-0263**



# Ocean Spray

## New containers on market

By CAROLYN CALDWELL  
Calling it the most important product introduction in 15 years, Ocean Spray President Hal Thorkilsen recently unveiled the cooperative's new flexible containers, which resemble cereal boxes but are airtight and sterile.

The so-called "flexible packaging" actually was introduced last month in New England and New York in the form of 6.8 ounce, single serving three-packs of cranapple and grapefruit juice, with straws attached for easy drinking.

Later in the year, 33.8 ounce, ready-to-serve containers, with a shelf life of six months, will be available.

In the fall, liquid concentrates of cranberry juice cocktail and other products will be on supermarket shelves in the new packages.

Thorkilsen made the announcement about flexible packaging to more than 250 food retailing executives meeting in Canton, Mass.

Explaining the management reasoning behind the decision to go with flexible packaging, Thorkilsen said the cost of glass and can packaging is expected to increase at an annual rate of 10 percent throughout the 1980's.

"The need was apparent for a more economical form of packaging that would be acceptable to consumers, while enabling us to continue to provide high quality Ocean Spray products," he stated.

Ocean Spray officials say the new aseptic paperboard and foil packaging requires less energy for processing than bottling or canning.

Retailer advantages cited include energy savings (from elimination of freezing/

refrigeration in store, during shipping and at warehouse) and weight savings (flexible ready-to-serve containers compared to 32 ounce bottles), as well as up to 50 percent increased shipping capacity and better shelf utilization.

For consumers, say coop officials, the advantages will be savings of 5 to 25 percent depending on size, easy disposability and the convenience of storage at room temperature.

Ocean Spray plans to commit \$30 million over the next five years to install at least two different flexible packaging systems at its plants in Massachusetts, New Jersey, Wisconsin, Washington and Texas. It has no plans to phase out any bottling or canning facilities. Thorkilsen said \$4-6 million in advertising, representing a 50 to 60 percent increase, will be used to introduce the newly packaged products.

Brik Pak Co., a Dallas subsidiary of Tetra Pak of Sweden, has installed the equipment for the pilot plant operation in Middleboro, Mass.

CRANBERRIES visited the

Middleboro plant where Ralph Tatlock, international trouble-shooter for Tetra Pak, told this reporter: "I think this is the start of something big in the States."

Tatlock is coordinating the initial operation of the Brik Pak installation in Middleboro.

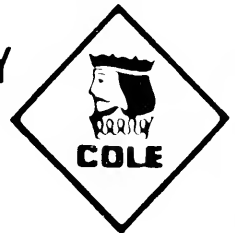
Flexible packaging is already available in 50 countries throughout Europe, Africa and the Far East.

Tatlock showed us the filling and packing unit, which is two stories high and free standing. Either cranapple or grapefruit juice, which has been "flash heated" for 30 seconds at 210 degrees F and then "quick-cooled" to 60 degrees, descends through a stainless steel tube and is then packaged by simultaneously descending paperboard and foil in which has been created a sterile vapor barrier.

Ray Bourque, Ocean Spray's manufacturing/packaging engineer said flash heating "degrades vitamin C less (than bottling) and could very well lead to a more nutritious product."

He added that the esters, or fruity odors, do not escape when the new packaging process is used.

WISCONSIN CRANBERRY  
HEADQUARTERS FOR

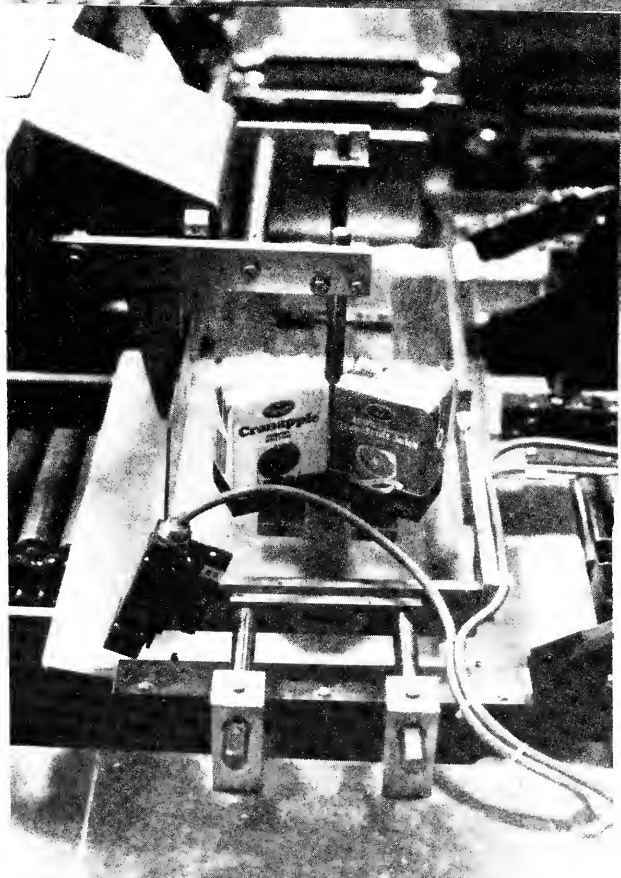
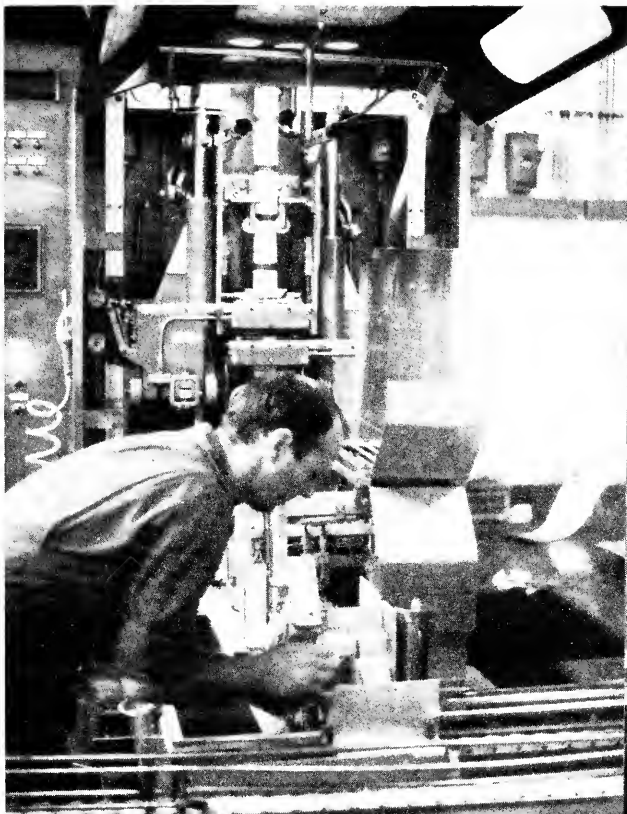


SEVIN XLR

DEVIRINOL 10G \* EVITAL \* GUTHION  
DIAZINON 14G \* PARATHION \* ETHREL

Cole Chemical Supply

DIVISION OF *Hopkins* AGRICULTURAL CHEMICAL CO  
P.O. BOX 7211, MADISON, WISCONSIN 53707  
608 221-1581



OCEAN SPRAY'S Middleboro, Mass., plant will be the initial processing site for flexible packaged, single servings of Cranapple and Grapefruit Juice. The unique, airtight containers will be sold in three packs with straws affixed for easy drinking.



# FOLIAR NUTRIENT . . .

(continued from page 6)

The new leaves reflected changes in calcium concentration better than other tissues as they increased in concentration from June to September. New stem tissue had from 1/3 to 1/2 the concentration of Ca of that found in the new leaves. Old leaves had a high and consistent calcium concentration. It may be interesting to some to note that new leaves sampled on 10/31 with .81 percent Ca were the same leaves sampled as old leaves on 6/21 with a concentration of .76 percent Ca and the new stem sampled on 10/31 with .23 percent Ca was old stem sampled on 6/21 with .24 percent Ca.

**MAGNESIUM CONCENTRATION** tended to increase slightly seasonally in new leaves and to decrease seasonally in new stems. Old leaves and old stems, although quite different in concentration, tended to be consistent throughout the season.

The iron concentration was inconsistent in all tissues and seems not

to be related to month of sample harvest. The old leaf and stem tissues had high concentrations in all instances. This is likely, in part, the deposition of iron residue externally by the winter flood waters. The washing procedure was inadequate for dissolution and removal of the iron residue. New leaf tissue had never been exposed to flooding before the samples were taken.

Tissue boron tended to increase seasonally in new leaves and decrease seasonally in new stem in the first year but no such pattern showed in the second year. The differences found in new leaves suggest this tissue as a good one for detecting concentration differences among fields or plots within a field.

The new leaves showed copper (Cu) concentrations in the 3-10 ppm range with new stems having 7-25 ppm. Old stems carried the highest concentration of Cu for the four tissues. The high concentrations found are evidence for tolerance by the plant rather than a need for this much concentration.

The zinc level declined seasonally in all four tissues in the first year and in the three tissues that provided sample material in the second year. New stems carried slightly more Zn than new leaves through seven of the eight sample dates.

The manganese (Mn) level of new leaves increased seasonally and the concentration in new stem tended to decline seasonally. The old leaves and old stem tissues carried between 178 and 317 ppm of manganese with no consistent pattern of change. The values for all tissues are high when compared to that found in other crop plants.

The seasonal changes evident for phosphorous, potassium, calcium and zinc emphasize the importance of establishing a standard for the season of sampling for early season concentrations are substantially different than late season ones.

The new leaves are good tissues to sample for they have mineral concentrations above or equivalent

(continued on page 12)

Table 2. Concentrations of 9 mineral elements in 4 cranberry tissues at 8 sample dates covering 3 years. Each datum is the mean of 9 determinations.

Element and Tissue	DATES OF SAMPLING							
	6/23	7/31	9/4	10/31	6/21	7/26	8/28	7/9
% dry weight								
<b>PHOSPHORUS</b>								
New leaves	.18	.14	.15	.16	.25	.16	.16	.17
New stem	.26	.19	.11	.11	.31	.25	.19	.24
Old leaves	.16	.15	.18	-	.25	-	-	.19
Old stem	.15	.14	.13	.12	.28	.21	-	.15
<b>POTASSIUM</b>								
New leaves	.74	.50	.59	.59	.86	.63	.58	.94
New stem	1.27	.49	.41	.39	.92	.75	.46	1.09
Old leaves	.49	.43	.53	-	.69	-	-	.70
Old stem	.44	.33	.39	.38	.60	.15	-	.68
<b>CALCIUM</b>								
New leaves	.52	.71	.79	.81	.50	.58	.70	.59
New stem	.31	.22	.25	.23	.37	.23	.24	.26
Old leaves	.93	.95	.90	-	.76	-	-	.95
Old stem	.25	.21	.19	.16	.24	.19	-	.22
<b>MAGNESIUM</b>								
New leaves	.16	.17	.21	.20	.15	.18	.20	.18
New stem	.09	.06	.07	.07	.17	.08	.06	.09
Old leaves	.17	.17	.18	-	.19	-	-	.21
Old stem	.04	.04	.06	.04	.08	.06	-	.05
Parts Per Million								
<b>IRON</b>								
New leaves	83	72	64	125	207	107	52	87
New stem	65	58	69	169	145	99	55	58
Old leaves	531	408	288	-	>500	-	-	352
Old stem	710	668	588	564	>7000	711	-	572

# BARK RIVER

*Culvert and Equipment Co.*



## OUR BUSINESS

SERVING CONSTRUCTION . . . .

MINING . . . .

MUNICIPALITIES . . . .

LOGGING . . . .

AND

## Wisconsin Cranberry Growers

WE ARE THE NO. 1 CULVERT PRODUCT  
SUPPLIER IN WISCONSIN & UPPER MICHIGAN.  
(ALUMINUM PIPE, HAND WHEEL OPERATED GATES, ETC.)  
. . . . AND WE'RE THE AREA DISTRIBUTOR FOR

**International** CONSTRUCTION & INDUSTRIAL EQUIPMENT  
AND OTHER EQUIPMENT MANUFACTURERS  
(CRAWLERS, TRACTORS, EXCAVATORS, LOADERS, ETC.)

## Can We Serve You? . . .

**EAU CLAIRE**  
(715) 835-5157

**GREEN BAY**  
(414) 435-6676

**ESCANABA**  
(906) 786-8920

**IRONWOOD**  
(906) 932-0222

**MADISON**  
(608) 222-4151

**MILWAUKEE**  
(414) 461-5440

## FOLIAR NUTRIENT . . .

(continued from page 10)

to new stem tissue for all elements except copper at all dates and potassium at the earliest sampling date each year.

The samples were collected and prepared for analysis by Mr. Nazzal El-Dairi and Dr. T.G. Greidanus. Part of the data analysis was completed by Mr. James Marx. Their contribution is appreciated.



*A great bread can do wonders for the lowly hamburger. An interesting topping or filling can add even more pizzazz.*

### BARBECUED CRANBERRY BURGERS

(Makes four servings)

1½ lbs. ground beef  
1 teaspoon salt  
1/8 teaspoon pepper

Table 2. Continued.

Element and Tissue	DATES OF SAMPLING							
	6/23	7/31	9/4	10/31	6/21	7/26	8/28	7/9
<b>BORON</b>								
New leaves	26	28	33	39	31	25	31	29
New stem	15	11	8	6	20	12	13	10
Old leaves	44	44	39	-	45	-	-	38
Old stem	14	16	11	7	18	13	-	9
<b>COPPER</b>								
New leaves	7	5	3	3	10	7	5	3
New stem	10	16	24	25	18	15	17	7
Old leaves	7	5	2	-	19	-	-	3
Old stem	20	24	35	25	51	41	-	11
<b>ZINC</b>								
New leaves	44	28	18	16	31	20	19	14
New stem	42	37	33	31	40	38	33	66
Old leaves	37	27	17	-	45	-	-	26
Old stem	51	51	39	32	60	44	0	29
<b>MANGANESE</b>								
New leaves	113	135	148	182	121	135	142	133
New stem	216	190	141	157	213	206	203	270
Old leaves	260	248	229	-	243	-	-	283
Old stem	238	216	178	205	279	246	-	317

### CRANBERRY GROWERS REALTY

Listings of buyers and sellers welcomed on cranberry acreage and upland.

Appraisals

**DOUGLAS R. BEATON**  
E. Sandwich, Mass.  
02537  
(617) 888-1288



## Crane for Hire

Three quarter yard crane with matts, clam and dragline. Have had years of experience in digging ponds, stumping and general bog work.

**GEORGE R. NAVA CO.**  
11 Maple Avenue  
Kingston, Mass. 02364  
Call 585-4514

Mix ground beef lightly with salt and pepper; shape meat into four 1-inch thick patties. Grill, 4 inches from heat, 4-8 minutes per side until beef is done to desired doneness. Serve with any of the following toppings . . .

1) ITALIAN BURGERS: Blend ½ teaspoon Italian herbs into ½ cup whole berry cranberry sauce. Spoon atop burgers just long enough to heat, about 2 minutes before end of cooking time. If desired, top with slice of mozzarella cheese. Serve on Italian bread.

2) CHILIED BURGERS: Combine 2 tablespoons chili sauce with ½ cup whole berry cranberry sauce. Spoon atop burgers just long enough to heat them thoroughly. Top with pickled peppers and olive slices. Serve in Kaiser rolls that have been toasted.

3) AVOCADO BURGERS: Top each partially cooked burger with a slice of ripe avocado, a tablespoon of cranberry orange relish and crisp crumbled cooked bacon. Serve in whole wheat pita pocket sandwich breads.

4) CRANBERRY FRUITED BURGERS: Add ½ cup whole berry cranberry sauce and ½ cup flaked coconut to above meat mixture before grilling. Just before burgers are done, top each with a slice of cranberry sauce and a slice of fresh peach. Serve on a hard roll.



INVITE GUESTS to a Hamburger Hero Party.

## Wanted

### Bailey Separators

FRANCIS J. FARRELL  
23 Blueberry Way  
Marion MA 02738

(617) 748-0031  
(617) 748-1415

Office  
295-2222

K. Beaton  
295-2207

## BEATON'S CRANBERRY GROWERS SERVICE



D. Beaton  
888-1288

WAREHAM, MASS.

P. Beaton  
947-3601

Specializing in

- DITCHING
- SANDING
- COMPLETE BOG MANAGEMENT
- NETTING
- WEED CLIPPING
- HARVESTING (Wet and Dry)

Also

Complete line of portable Crisafulli Pumps 2" - 16"  
Plastic netting for suction boxes

**Don't pinch the cranberries**

# Study on shelf life

By **L.M. MASSEY JR.**  
and **B.R. CHASE**

New York State Agricultural  
Experiment Station  
and  
**M.S. STARR**  
Ocean Spray Cranberries Inc.

For the past few years, we have been working in the Massachusetts area on a cooperative project studying means of improving the shelf life of fresh market cranberries.

Although experienced in other areas of fresh fruit handling, the Cornell personnel were definitely novices in cranberries. However, the expertise of the Ocean Spray workers more than made up for our lack of experience and it can fairly be said we all learned much from these studies. The experiments are over now and we would like to report some of our findings to others in the field.

What we learned is not altogether new. While observations were obtained by treading well worn pathways, our findings are current and hence should be sufficiently relevant to bear repeating for those who "knew all along, but just forgot."

## **EXPERIMENTAL FRAMEWORK**

For this study, we established a program of systematic investigation covering field production, harvest, handling and screening of fresh market cranberries to determine the relative contributions of all appropriate variables on subsequent shelf life.

During the initial testing, we found that by utilizing berries from commercial growers who followed good pesticide appli-

cation recommendations we were experiencing only minor problems with fruitworm or field rot. Although we readily acknowledged that under some conditions worm and rot damage can be major problems in storage longevity of cranberries,

we did not experience either to any significant degree during the progress of this study.

## **Field Studies:**

The importance of preharvest factors on the shelf life of cranberries is so well recognized that these factors had to be included in this study. Due

**Bog construction**

**Vine setting**

**Flumes and flume work**

**Bog sand**



**Nemasket  
Construction  
Co., Inc.**

**275 Wareham St.,  
Middleboro MA 02346**

**(617) 947-1723**

o limited time, however, we touched only on a few aspects of this important area.

Large differences have been observed in cultural practices among growers, such as rate of fertilization, weed control, late water versus early water, etc. Although a complete study of the effect of each of these factors on storage longevity was far beyond the scope of this study, we did examine the keeping quality of fruit from bogs in an overall excellent state of cultural "thrif" yielding 50 bbl. to the acre or more, and those from bogs in a less "thrifty" condition yielding 50 bbl. to the acre or less. Although it was possible to demonstrate that certain extremes in cultivation (e.g. high nitrogen, excessive flooding, etc.) did shorten shelf life, we concluded that, in general, state of "thrif" of the bogs within the extremes included in this study were not a major factor in determining keeping quality.

It is well known that certain cultivars are better "keepers" than others. We did not test the effect of cultivar on keeping quality. With the exception of some exploratory studies conducted with Early Blacks, we intentionally restricted our obser-

ations to the single cultivar Howes. This, we feel, gives a continuity of response to our observations not possible had we switched cultivars between experiments.

**Harvesting:**

We attempted to establish a possible relation between berry maturity (or ripeness) at time of harvest and resulting keeping quality. In terms of optimum date of harvest for maximum storage longevity, we found that there is a relatively small but decided advantage for berries harvested approximately two to three weeks prior to usual date of commercial harvest from our test bogs. Since the difference is small, however, it is probable that other considerations such as yield or increased berry color are overriding considerations. It should be noted, however, that postponing harvest tends to result in overmaturity of the berries. This is inconsistent with the goal of the industry to supply high quality fresh market fruit.

Berries as they exist in the bog were found to have considerably greater storage longevity potential than did berries as they were received at the screening plant. We found that the shelf life of berries harvested

by hand with a minimum of bruising is markedly higher than that of berries harvested by machine. In one test, a rapid picking machine was found to be more damaging to shelf life than was a slower operating machine. We did not study the effect of wet harvesting and subsequent drying on keeping quality.

**Prescreening Handling:**

Throughout this study, the effect of temperature on harvested berries has been shown to be of primary importance in the determination of keeping quality. Holding berries at 36 degrees to 40 degrees F continuously gives a fourfold to tenfold increase in shelf life over holding berries at 55 degrees to 65 degrees F. These results would indicate the value of rapid removal of field heat following harvest. In one experiment, the shelf life of berries held in chaff at 36 degrees F until early December followed by screening, packaging and holding at 65 degrees F was compared with the shelf life of berries held at 65 degrees F both prior to and following screening and packaging. Here we found the resulting shelf life of the continuously warm

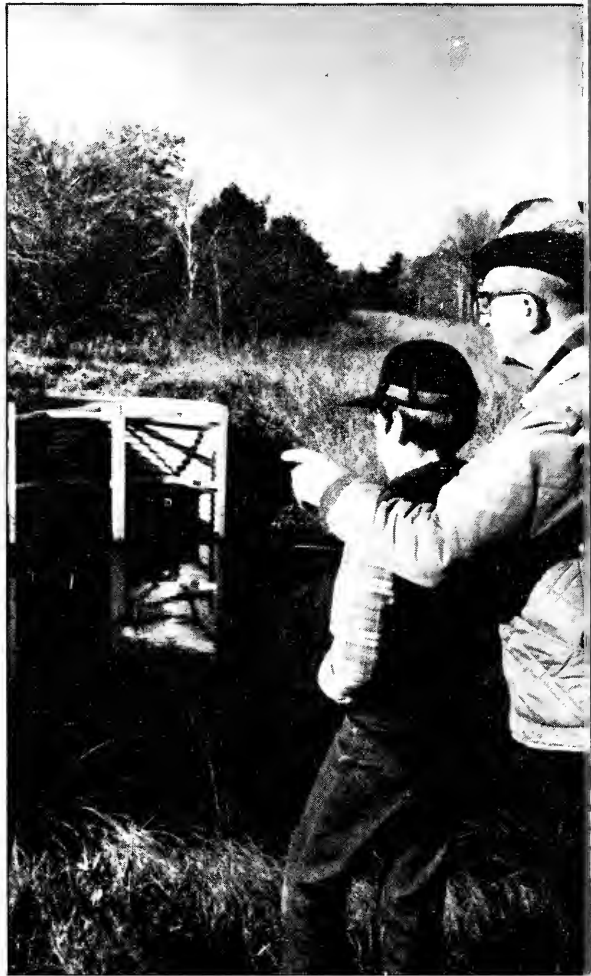
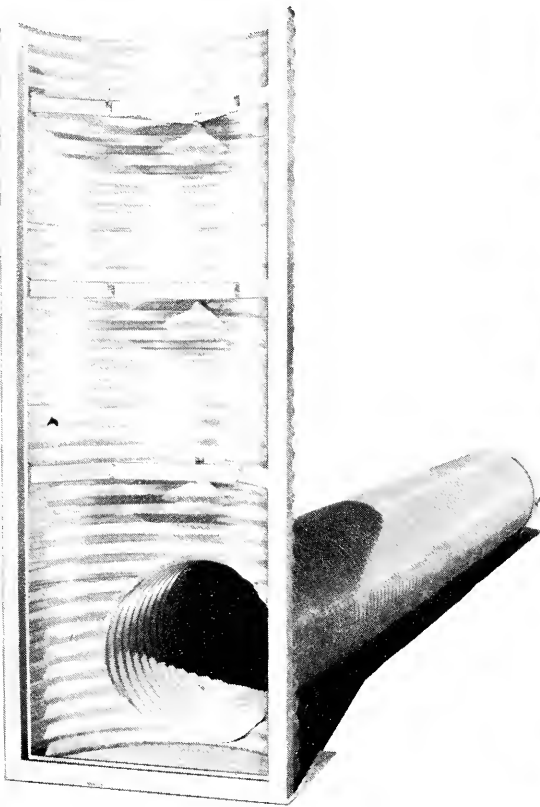
.....

Scoring of cranberries for physical condition during 65°F storage surveillance in 1 lb. poly bags following removal of samples at different locations during screening of machine-harvested berries. Means of 3-100 berry aliquots each of triplicate samples.\*

Holding time (weeks)	Class	Sample location				
		Chaff	Cleaned	Separated	Hand sorted	Packaged
0	Sound	86	88	92	91	85
	Bruised	5	2	1	2	6
	Broken down	9	10	7	7	9
1	Sound	84	88	81	76	65
	Bruised	2	3	10	7	16
	Broken down	13	9	9	17	19
2	Sound	52	70	56	52	43
	Bruised	4	4	6	5	10
	Broken down	44	26	38	43	47
4	Sound	41	52	43	37	26
	Bruised	5	9	7	7	6
	Broken down	54	39	50	56	68

\* Note decrease in sound fruit with holding time in berries from each location.





## Install the flow gates now that generations will rely on.

Felker flow gates are built to last, thanks to famous Felker welded construction, generously braced designs, and highest quality materials. Manufactured in aluminum only.

Standard sized for conduits from 15- to 48-inch diameters with riser widths from 24- to 72-inches, height as required. Single, double and triple log channel designs, other sizes available upon application. For virtually any size or water control application, Felker Brothers are flow gate specialists. **Send for free bulletin.**

**OUR  
STRENGTH  
IS METAL**



**FELKER BROTHERS CORPORATION**

Marshfield, Wisconsin 54449

PHONE 715-384-3121 TWX 510-370-1846 TELEX 29-3451

ruit to be shorter.

#### Screening:

We have studied in detail the effect of screening on resulting berry life. Our initial observations lead us to suspect that impact bruising and resulting physiological (sterile) breakdown was a major factor in the limitation of consumer package shelf life. Although we were impressed by the efficient handling of the berries upon arrival at the commercial

screening and packaging lines, we noted the relatively harsh treatment they receive by dumps, drops, rolls, abrasions, etc., as they move to and from the various items of milling machinery. Vertical distances the berries drop or roll seem unnecessarily great when considered in aggregate.

We sampled berries of known cultural and harvest background at various locations along the lines as they were being screened, and conducted studies of subsequent shelf life in consumer packages made up from these berries and stored under various conditions of refrigeration. The results of one such experiment are indicated in the Table. Although interpretation of the data from these experiments is somewhat complicated by the progressive removal of defects as they move from location to location along the line, storage values indicated a progressively increasing rate of physiological breakdown of sound berries in subsequent shelf life.

On the basis of the above observations, we conducted experiments simulating various handling conditions by impacting the berries through a bruising jig with no alteration in berry population (i.e. no removal of defects). Of course, these pilot plant results cannot be extrapolated directly to actual screening conditions. The damage we obtained, however, was identical in appearance to that obtained under actual plant conditions. Data from these and other experiments on the mechanism of breakdown development are of considerable relevance here. Our observations have led to the following conclusions:

1. Repetitive impacts are cumulative in their effect on breakdown development.

2. The presence of impacted and physiologically broken down berries in contact with or in the immediate vicinity of sound berries does not alter the keeping quality of the sound

# 37 Acre Cranberry Bogs For Lease or Sale

- Increase Your Cranberry Acreage and Profits by Rebuilding Old Bogs While Market Is Strong and Growing.
- Excellent Site Location With Easy Access to 4 Major Highways & Ocean Spray Plant.
- New Engineering Plans Include 4 Separate 5+ Acre Bogs, Reservoir, Sprinkler System, 1,060 ft. Alum Ovrhd Pipe With 20 Rain Birds on Hand. City Water, Electric, Paved Roads.
- Excellent Uplands Water Supply & Drainage to Taunton River.
- Conservation & Wetlands Approved.

**OWNER WANTS A QUICK OFFER – TERMS AVAILABLE**

*Write P.O. Box 1082*

*Taunton, Mass. 02780*

## Niemi Electric Co.

ROBERT NIEMI

ELECTRICAL CONTRACTORS

HEAT, LIGHT and POWER WIRING

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL



TEL. 295-1880

Robert Niemi

Pinchurst Dr.

Warcham, Mass.

berries.

3. The effect of impact bruising on respirational activity of the berry is marked and of long duration, indicating a deep seated alteration in the physiology of the fruit.

4. A delay between impact and the appearance of a visible bruise often occurs. Although the full potential of the bruising in eliciting its response can take several days to a week or more, visible evidence of impact often takes a period of 24 hours or longer. Further, physiological breakdown can develop from all physical classifications of berries determined after a 24 hour post-impact induction period. These two phenomena complicate the process of evaluating market quality by means of off-the-line quality control by defect enumeration.

The evidence for rough handling and resulting physiological breakdown being a major cause of shelf life failure under both actual and simulated conditions of handling is overwhelming. This is particularly true when viewed in the light of the delayed appearance of damage symptoms difficult or impossible to spot at the time of harvest or screening.

**Postscreening Handling:**

We have made a few observations

on the effect of the consumer package type on the keeping quality of fresh berries. We found little difference in the keeping quality of fruit stored in 1 lb. vented poly bags and window boxes at 36 degrees F, but a slight

advantage for poly bags over boxes at 65 degrees F.

Without a doubt, temperature is one of the most important factors influencing postscreening shelf life. Throughout our investigations, we

# Dave Fish

## CRANE SERVICE

Drag Line, Clam Shell,  
Land Clearing, Water  
Holes Dug

Pembroke, Mass.  
293-2976

A MOST COMPLETE INVENTORY OF  
IRRIGATION ACCESSORIES



# LARCHMONT

ENGINEERING & IRRIGATION, INC.

P.O. Box 66, 11 Larchmont Lane, Lexington, MA 02173 (617) 862-2550

IRRIGATION EQUIPMENT DESIGNED ESPECIALLY  
FOR THE CRANBERRY INDUSTRY

FOR EXAMPLE:

- Gorman-Rupp Self Priming Electric Sprinkler Pumps*
- Proven Quick Couple Riser*
- Ingersoll-Rand Water Harvest Pumps*
- Aluminum Insert Coupling For 4" Poly Pipe*

Contact:

Larchmont Engineering  
Phil Tropeano, President  
(617) 862-2550 (Call Collect)

Contact

Bill Stearns, Plymouth, Mass.  
(617) 746-6048  
(617) 746-2610



ave consistently demonstrated increased shelf life of packaged berries at 36 degrees F compared to 5 degrees F. The mode of action of refrigerated holding we now believe to be two-fold. First, of course, is the well-known effect of low temperature slowing the respiratory activity of the berries, thus slowing the utilization of reserve food and the accumulation of toxic end products in the fruit. Thus, a drop of temperature of 10 degrees C (18 degrees F) usually accounts for an approximate halving of the rate of life processes with a corresponding doubling of expected storage longevity, other factors, such as low temperature breakdown (below 36 degrees F for cranberries), excepted. In addition, refrigeration appears to retard breakdown following impact. Although we found breakdown eventually does occur in samples subjected to experimental impact, regardless of holding temperature, it is markedly slowed by refrigeration.

#### CONCLUSIONS

The principal cause of shortened retail shelf life of commercial fresh market cranberries is rough handling, which results in

impact-induced physiological breakdown, made worse by insufficient postharvest refrigeration. Unfortunately, the damage inflicted is not detected by current quality control measures, since they are conducted before most visible symptoms of impact have become evident. The development of visible symptoms and subsequent breakdown occur after the packaged berries have been shipped from the screening plant.

Although the positive value of postscreening refrigeration is quite obvious, the value of prescreening refrigeration is a little more complex. Although there is an obvious benefit of prescreening refrigeration in extending the quality of the "in-chaff" fruit and retarding the physiological breakdown of berries subjected to impacts during harvest handling, the effect of prescreening refrigeration in reducing the susceptibility of sound berries to subsequently induced physiological breakdown from impacts inflicted during screening is not so obvious. It is with berries which are being held for periods longer than eight weeks that this effect becomes most

significant.

We further conclude that other factors contributing measurably to shelf-life shortening include cultivar, cultural conditions (high nitrogen, excessive flooding, poor pest management practices, overmaturity at the time of harvest, etc.). These factors probably are, on the average, less important to overall fresh market quality than are bruising and temperature control. Most distributional and marketing factors (temperature control, rough handling, etc.) are probably out of the control of the industry.

#### WOMAN NAMED

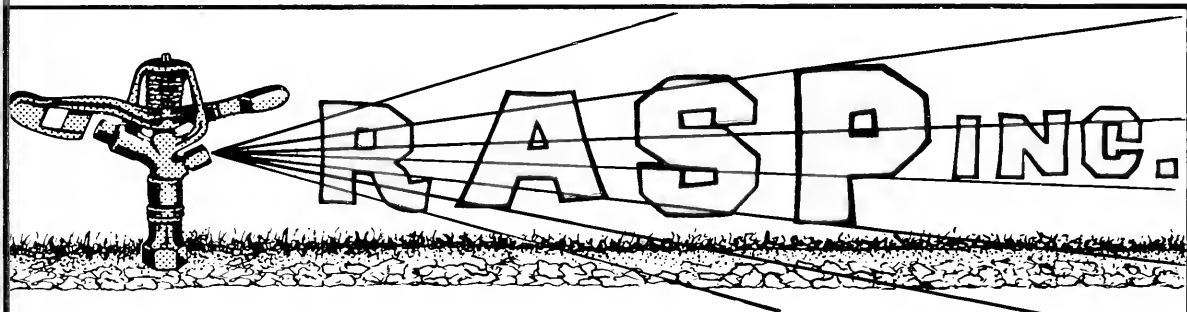
Assistant Secretary of Agriculture C.W. McMillan has named Mildred Pyle Thymian, a 48 year old Minnesota farmer and senatorial assistant, as administrator of the U.S. Department of Agriculture's Agricultural Marketing Service.

#### CRANBERRIES

P.O. Box 249

Cobalt CT 06414

\$8 for one year; \$15 for two years



### AUTHORIZED AGWAY REPRESENTATIVE

#### LICENSED SPRAYING OF PESTICIDES (Seasonal)

WITH A COMPLETE LINE OF:

**CRANBERRY INSECTICIDES • FUNGICIDES  
HERBICIDES • MITICIDES • and FERTILIZERS  
IN STOCK!**

**ROBERT A. ALBERGHINI — SPRAYING**  
RFD 5 PLYMOUTH STREET, CARVER, MASS. 02330  
TELEPHONE: 866-4429

For further information, call evenings after 5:30

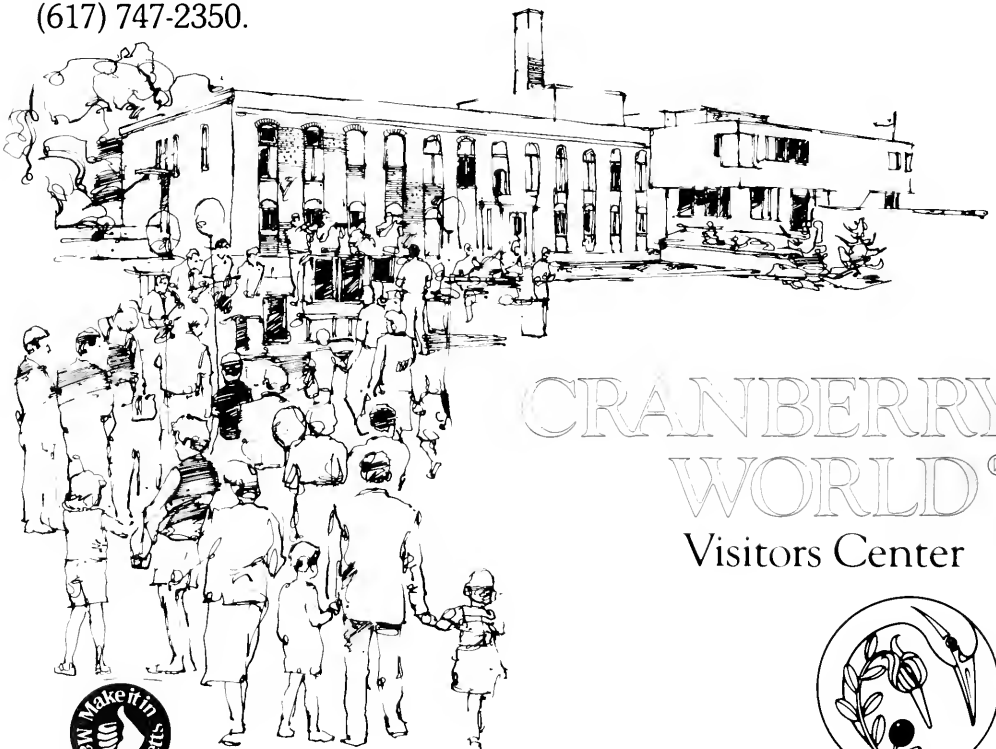
AGWAY

AGWAY

# WHAT'S IN A BOG?

Cranberries. A delightfully delicious fruit well worth learning about at Ocean Spray's fascinating Cranberry World® in Plymouth. Walk around working cranberry bogs. Look at cranberry art and antiques. Listen to our boardwalk concerts. And view our changing monthly art exhibits. Free refreshments, too. And, best of all, free admission for everyone. Come find out what's in a bog. It'll boggle your mind.

Open daily April 1 through November 30th, 9:30 a.m. to 5 p.m. Free Admission. Near Plymouth Rock. Group reservations required. For information write Cranberry World, Ocean Spray Cranberries, Inc., Plymouth, Mass. 02360 or call (617) 747-1000 or (617) 747-2350.



CRANBERRY  
WORLD®  
Visitors Center





# CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

Volume 45, No. 9

September 1981

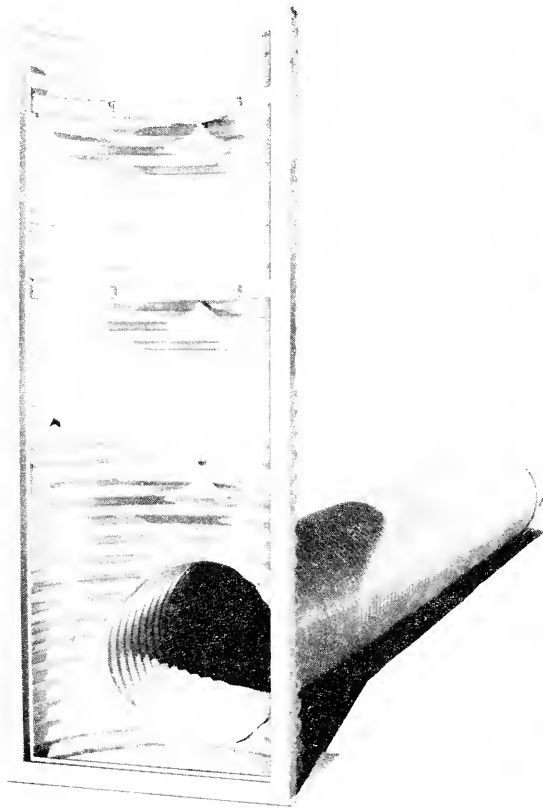


**Makepeace reflects . . .**

★★★★★

**Builds bog machines . . .**

Library UMass  
Serials Section  
Amherst MA 01002



## Install the flow gates now that generations will rely on.

Felker flow gates are built to last, thanks to famous Felker welded construction, generously braced designs, and highest quality materials. Manufactured in aluminum only.

Standard sized for conduits from 15- to 48-inch diameters with riser widths from 24- to 72-inches, height as required. Single, double and triple log channel designs, other sizes available upon application. For virtually any size or water control application, Felker Brothers are flow gate specialists. **Send for free bulletin.**

OUR  
STRENGTH  
IS METAL



**FELKER BROTHERS CORPORATION**

Marshfield, Wisconsin 54449

PHONE 715 384 3121 TWX 510 370-1846 TELEX 29 3451



## Pursues a long tradition

By CAROLYN CALDWELL

Russell Makepeace, cranberry company president, banker and family genealogist, knows cranberries—from Ben Lear to Stevens—and Makepeace history—from Abel Denison to Mary Zelinda.

No great surprise there!

Now in his seventies, he got his first job in cranberrying more than 50 years ago and has been president and director of the A.D. Makepeace Co. for 23 years.

As for family trees, the Makespeaces have been in America for 10 generations and Russell has been studying their history for years, tracing the name back to 13th century England.

A gregarious individual and a natural storyteller, Makepeace recently told this writer of his early start in cranberrying as he leaned back in his chair next to an old fashioned rolltop desk in the office of the A.D. Makepeace Co. Inc. in Wareham, Mass.

"The first job I had was nailing quarter barrel boxes in the screen-house," he recalled.

He also pasted labels and

worked in the scoop shop on that first job.

That was in 1930 when he went to work for his uncle, John Makepeace, in Wareham.

Prior to that stint, he had been employed by Grand Union Co., a grocery chain headquartered in New York City, for five years following his graduation from Williams College in 1925.

Russell played varsity football at Williams.

At Grand Union, he had worked his way up from delivery boy to assistant superintendent.

But an eventual commitment to cranberrying seemed inevitable in the life of a Makepeace.

For well over a century, the Makepeace name has meant cranberries. In the late 1860's, Russell's grandfather, Abel Denison Makepeace, gave up farming strawberries and potatoes on his Hyannis, Mass., farm (now the site of the Hyannis Cooperative Bank and Dunfey's Restaurant) to try growing cranberries. With the aid of 11 investors, he started a 2 acre bog.

Successful with the Hyannis venture, he later bought land and built bogs in Plymouth County. When A.D. was in his seventies, he bought up some New Jersey "wasteland" for

(please turn page)



## A Solid Investment

requires solid financing . . . and that's our specialty. Credit for equipment, land, buildings . . . all your financial needs. For Credit . . . Plus a full range of other finance-related services, see your local Farm Credit representative.

P.O. Box 7 Taunton, Mass. 02780 Tel: (617) 824-7578  
Office: Located on Rt. 44, ¼ Mile West of Rt. 24

**COVER PHOTO**  
SEEN SEATED in his office and showing a visitor an old snap scoop is Russell Makepeace, the president of A.D. Makepeace and a source of much cranberry and Makepeace family lore. (CRANBERRIES photo by Carolyn Caldwell)



still more bogs.

The cranberry entrepreneur had three sons—William, John and Charles. Charles was pulled out of an early banking career to manage the New Jersey expansion. Charles' son, Russell, was born in Mays Landing, N.J., in 1904.

In 1922, William and John, along with some of A.D.'s original partners, consolidated various Makepeace properties into the present A.D. Makepeace Co. Today the company has 1,350 acres of bogs in Plymouth and Barnstable counties.

Once he became involved, Russell remained deeply immersed in the family interests of cranberries and banking. He managed Makepeace bogs on Cape Cod and took on the directorship of four banks "from time to time."

The worst nightmare of growing cranberries on the Cape

was the annual gypsy moth invasion, Russell said. DDT, "a specific for them," was the only effective control, he averred.

Makepeace said he fought the caterpillars with such zeal that thousands of dead ones served as bridges by which live ones crossed over the ditches into the bog. With the ban on DDT, he added, he is worried that the gypsy moth caterpillar may never be controlled.

Besides heading up the A.D. Makepeace Co., Russell also has found the time to involve himself in other pursuits involving the cranberry. He has been a director of Ocean Spray, he has helped start four cranberry clubs and he has cooperated avidly with county agricultural agents.

Early in Russell's cranberry career, his company began experimenting with dehydration. The practice never caught on in the U.S. because of the abundance of

fresh fruit for the holidays, he said, but it proved very useful for making cranberry sauce available for troops overseas in World War I and II and the Korean War.

"When World War II came around, we were ready for them," Russell said.

A small 1 lb. package of dehydrated cranberries was equal to 10 lbs. of fresh fruit and could feed 100 men. The moisture content was 4 percent as compared to 98 percent for fresh fruit. A carload could hold about \$200,000 worth of dehydrated berries the company president said.

A.D. Makepeace developed a method of piercing the fresh cranberries by running them through three sets of rolls with phonograph needles. The perforated fruit then was placed on trays one berry thick and put in the dehydrator for eight hours.

(continued on page 12)

A MOST COMPLETE INVENTORY OF  
IRRIGATION ACCESSORIES



# LARCHMONT

ENGINEERING & IRRIGATION, INC.

P.O. Box 66, 11 Larchmont Lane, Lexington, MA 02173 (617) 862-2550

IRRIGATION EQUIPMENT DESIGNED ESPECIALLY  
FOR THE CRANBERRY INDUSTRY

FOR EXAMPLE:

*Gorman-Rupp Self Priming Electric Sprinkler Pumps*  
*Proven Quick Couple Riser*  
*Ingersoll-Rand Water Harvest Pumps*  
*Aluminum Insert Coupling For 4" Poly Pipe*

Contact:

Larchmont Engineering  
Phil Tropeano, President  
(617) 862-2550 (Call Collect)

Contact:

Bill Stearns, Plymouth, Mass.  
(617) 746-6048  
(617) 746-2610



# editorial



## The Cross Era

The terms of our more significant U.S. presidents are designated as the Jackson Era, the Roosevelt Era, the Lincoln Era and so on.

In cranberrying the presence of Dr. Chester E. Cross at the Massachusetts Cranberry Experiment Station for more than 40 years might be appropriately known in future years as the Cross Era.

The director of the station—Dr. Cross joined the station in 1940, became its director in 1952—will retire on Dec. 1 and was feted Aug. 18 at the annual meeting of the Cape Cod Cranberry Growers Assn. The day, fittingly, was named Chester E. Cross Day.

What a career to look back on come December. There is, first of all, his own important research. There is his role in the growth of the station from a small, wood-heated cottage to an impressive, modern research facility. There is his estimable role of emissary to government, academia, industry and, most important, grower. And there is the key task he achieved so well of coordinating a staff of bright, imaginative and individualistic research scientists.

## Hooray!

Joe Carcione writes "The Green Grocer" column for the *San Francisco Chronicle*. In a recent column he noted that *Chronicle* readers had fired off letters to Ocean Spray Cranberries lamenting the unavailability of fresh cranberries last year. After receipt of the letters, Ocean Spray sent a representative to see Joe. The rep asked Joe to assure readers that there will be plenty of fresh cranberries this Thanksgiving and Christmas. Hooray! What's a Thanksgiving or Christmas dinner without fresh cranberries?



## PAVILION PROPOSED FOR CRANBERRY STATION

Members of the Cape Cod Cranberry Growers Association have been asked to think about a proposal to build a pavilion at the Cranberry Experiment Station to be used for industry events.

Cost estimates have run between \$12,000 and \$24,000, depending on extras.

"It is felt by the directors and officers that a decision of this type

should not be made without consulting the growers as a whole," says John C. Decas, president.

The board voted recently to spend \$1,055 for cranberry promotion at the Edaville Cranberry Festival. The expenditure will be matched by the state under the Massachusetts agricultural promotion program.

Similar matching funds will be available for the \$5,400 cost of a clambake, box lunches and bus transportation the board voted for the Sept. 22 annual meeting of the

National Association of State Directors of Agriculture.

Decas, Philip Gibbs, Clark Griffith, Doug Beaton, Wilho Harju and Jack Atwood have been named to a committee to study the We-we-antic River watershed proposal.

Griffith was named committee chairman by Decas.

Decas has been nominated by Commissioner of Agriculture Winthrop for the vacancy on the State Pesticide Board.

The treasurer's report for the period from August 1, 1980 to July 31, 1981 shows receipts of \$58,401.29 and disbursements of \$45,884.08.

## CRANBERRIES



THE NATIONAL CRANBERRY  
MAGAZINE

VOLUME 45—NO. 9

September 1981

Send correspondence to:

P.O. Box 249  
Cobalt CT 06414

Phone: (203) 342-4730

Bob Taylor, Publisher/Editor

### ADVISORS, CORRESPONDENTS

MASSACHUSETTS—Dr. Chester F. Cross, Director, Massachusetts Cranberry Experiment Station; Irving Demoranville, Extension Cranberry Specialist, Mass. Cranberry Station; Carolyn Caldwell, Rochester.

NEW JERSEY—Philip E. Marucci, Cranberry and Blueberry Specialist, Cranberry and Blueberry Laboratory, Chatsworth; Elizabeth M. Carpenter, Chatsworth.

NOVA SCOTIA—I.V. Hall, Botanist, Research Station, Kentville.

OREGON—Arthur Poole, Coos County Extension Agent, Coquille.

WASHINGTON—Azmi Y. Shawa, Horticulturist and Extension Agent in Horticulture, Coastal Wash. Res. and Ext. Unit, Long Beach.

WISCONSIN—Tod D. Planer, Farm Management Agent, Wood County; Joan E. Humphrey, Friendship.

CRANBERRIES is published monthly by the Taylor Publishing Co., Wellwyn Drive, Portland CT 06480. Second class postage is paid at the Portland, Conn., Post Office. Price is \$8 a year, \$15 for two years, 80 cents a copy in the U.S.; \$9 a year in Canada; \$10 a year in all other countries. Copyright 1981 by Taylor Publishing.  
ISSN: 0011-0787

## **John Felton**

# **He builds machines to aid cranberry growers**

By **JOAN E. HUMPHREY**

Four new machines to assist cranberry growers are on the market due to the ingenuity of John Felton, owner of Felton Manufacturing Inc. of Warrens, Wisc.

Felton, who has been building specialized equipment to aid cranberry growers for 25 years, credits the growers for most of his ideas.

"I get most of my ideas from the growers themselves who come to see me and talk about their special needs," he told CRANBERRIES. "The local growers are very supportive in helping to iron out any bugs in a new design and they help to perfect the machinery on their marshes."

The latest invention by Felton, who set up shop in his present location in the village 20 years ago, is a herbicide spreader to apply Roundup, a chemical that was recently cleared for use by cranberry growers.

Other machines manufactured by Felton include a tractor mounted ditch digger, a degrasser, a fertilizer spreader and a 10 foot riding beater for harvesting.

The fertilizer spreader is used from the dikes so the growers don't have to drive on the berries during the early growing season when use of the device is most effective.

"The riding beater is the innovation of Jon Gottschalk, cranberry grower," Felton said. "Gottschalk brought the idea to me and I built it according to

his design but most of the machinery I design myself."

The Warrens native has a variety of equipment of his own design on almost every marsh in Wisconsin and also in British Columbia, Quebec and Nova Scotia. He also has supplied specialized equipment to growers in Massachusetts, New Jersey, Oregon and Washington.

"I work 80 percent on orders

and 20 percent on speculation," Fenton said. "We don't have a slack season because we are always working ahead for the next season. If a grower comes in with a special request that is going to improve his operation, well, by golly, I'm sure going to try to come up with a machine that will solve his problem."

Felton Manufacturing Inc. employs five to eight persons year-round.

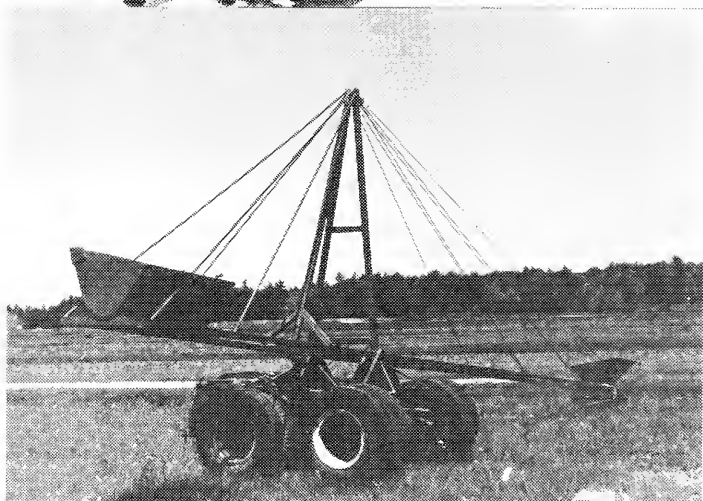
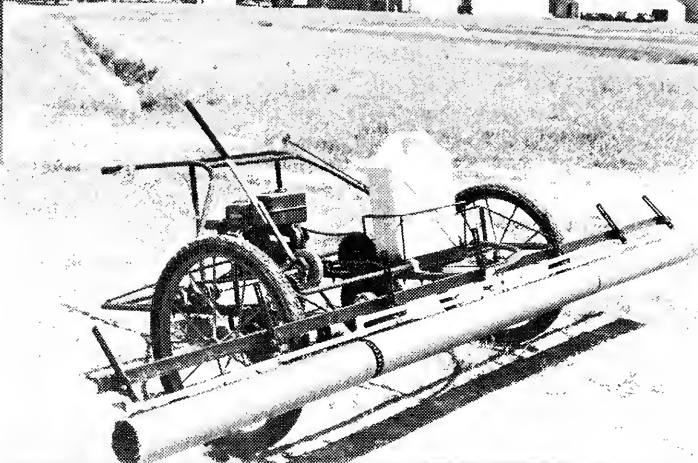
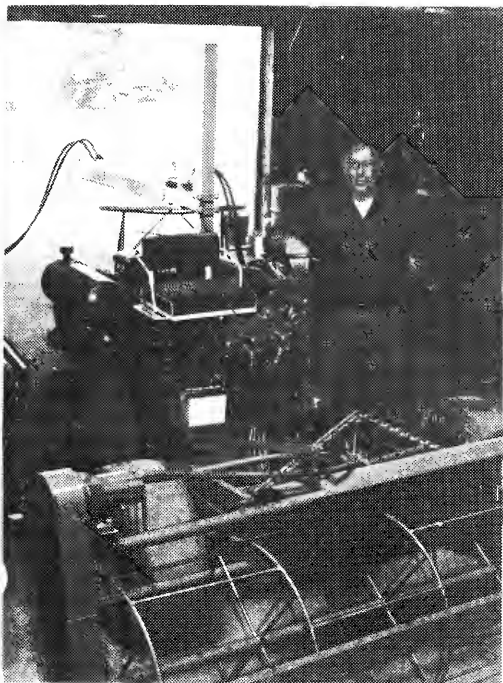
## **37 Acre Cranberry Bogs For Lease or Sale**

- Increase Your Cranberry Acreage and Profits by Rebuilding Old Bogs While Market Is Strong and Growing.
- Excellent Site Location With Easy Access to 4 Major Highways & Ocean Spray Plant.
- New Engineering Plans Include 4 Separate 5+ Acre Bogs, Reservoir, Sprinkler System, 1,060 ft. Alum Ovrhd Pipe With 20 Rain Birds on Hand. City Water, Electric, Paved Roads.
- Excellent Uplands Water Supply & Drainage to Taunton River.
- Conservation & Wetlands Approved.

**OWNER WANTS A QUICK OFFER — TERMS AVAILABLE**

*Write P.O. Box 1082*

*Taunton, Mass. 02780*



**ABOVE**, Felton stands beside the 10 foot riding beater he built, based on an idea by grower Jon Gottschalk. **TO THE RIGHT**, top, Felton with the herbicide spreader he developed. Photo was taken at the David Rezin Marsh. Center, closeup of the spreader. Bottom, the Felton fertilizer spreader that can be operated from the dikes. (CRANBERRIES photos by Joan E. Humphrey)

## For cranberry in Wisconsin

# Foliar nutrient concentration studies

III. Symptoms for mineral deficiency and elemental concentrations at deficiency levels.

By Malcolm N. Dana  
Department of Horticulture  
University of Wisconsin-Madison<sup>1</sup>

The inadequacy of an essential mineral nutrient within a plant disrupts the metabolic processes and normally results in the expression of visually discernible symptoms. The recognition and characterization of these symptoms is one diagnostic method for determining fertilizer needs. In the cranberry, there seems to be no written record of

the visual symptoms that may be expected from mineral deficiencies other than that for nitrogen.

A greenhouse nutrient solution demonstration experiment was established with deficient levels of potassium, calcium, magnesium, iron, boron, copper, sulfur, manganese and zinc in separate pots. Nitrogen and phosphorus were not included as deficiency elements in this study for their deficiency symptoms had previously been demonstrated. The cranberry plants grown were Stevens upright cuttings rooted in distilled water before transfer to the 2 liter black plastic containers of nutrient solution. Plants were grown in the nutrient solutions for nine weeks in a

### CRANBERRY GROWERS REALTY

Listings of buyers and sellers welcomed on cranberry acreage and upland.

Appraisals

DOUGLAS R. BEATON

E. Sandwich, Mass.  
02537

(617) 888-1288



**Bog construction**

**Vine setting**

**Flumes and flume work**

**Bog sand**

**Nemasket Construction Co., Inc.**

**275 Wareham St., Middleboro MA 02346**

**(617) 947-1723**

greenhouse with supplemental incandescent lamps to provide a 16 hour day length. The longest shoots were over 70 cm. in length at the end of this period.

**NUTRIENT SOLUTIONS** were developed to provide the following concentrations of nutrients in ppm: phosphorus 31, potassium 234, calcium 200, magnesium 50, boron 0.5, copper 0.03, manganese 0.5, zinc .05, molybdenum .05, iron 4, ammonium nitrogen 21, and nitrate nitrogen 240, with sulfur varied among pots as the primary salts were interchanged to provide for deficiencies in the selected elements. The ammonium nitrogen at 21 ppm was added to all pots as ammonium nitrate at the beginning and on two occasions during the experimental period. The solution reaction (pH) was adjusted weekly and maintained in the range of pH 3.9 to 5.0.

At the end of nine weeks, all new shoot growth was measured for linear extension and leaf samples were harvested for spectrophotometric analysis of mineral concentration. The elemental analyses were made by a commercial laboratory with flame spectrophotometric capabilities using standard procedures. The data are presented in Table 1.

Restricted growth was found in pots without each of the following elements: potassium, calcium, sulfur, magnesium, zinc and iron. Normal

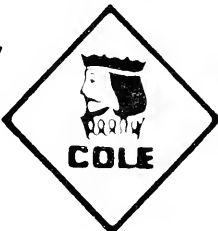
growth extension was maintained for nine weeks without supplemental boron, manganese and copper. Deficient plants for each element contained the following levels of that element: potassium, 0.17 percent; calcium, less than 0.05 percent; magnesium, 0.02 percent; boron, less than 1.0 ppm; zinc, 3.8 ppm; copper, 3.1 ppm, and iron, 26 ppm. The plants in the absence of manganese had an Mn concentration of less than 0.2 ppm without showing deficiency symptoms. The plants with iron deficiency maintained a concentration of 26 ppm, the same as that found in

the no-magnesium grown plants that did not display iron deficiency.

**DESCRIPTIONS** of each of the deficiencies induced in this study and for nitrogen and phosphorus follow:

**Nitrogen**—the deficiency of nitrogen first shows as light color in the newly developed leaves with reddish coloration of the leaves and new stem tissue. The red pigment in the leaves tends to be toward the leaf margins and is blended in with a yellowish green undercolor. This is a very common condition in the field where the soil supplies inadequate nitrogen for maximum growth in the early

**WISCONSIN CRANBERRY  
HEADQUARTERS FOR**



**SEVIN XLR**

DEVRIOL 10G \* EVITAL \* GUTHION  
DIAZINON 14G \* PARATHION \* ETHREL

**Cole Chemical Supply**

DIVISION OF *Hopkins* AGRICULTURAL CHEMICAL CO  
P.O. BOX 7211, MADISON, WISCONSIN 53707  
608 221 1581

Table 1. Growth data and elemental concentration in tissues from cranberry plants growth without selected nutrients in the root media.

Element Omitted From Solution	Number Uprights Planted	Number Shoots Develop	Growth Per Shoot cm	Symptoms	Concentration of Element								
					% Dry Weight				Parts Per Million				
					P	K	Ca	Mg	Fe	B	Cu	Zn	Mn
Complete	13	39	28	No	.16	1.2	.16	.13	44	30	3.1	7.5	152
K	11	28	11	Yes	.26	<u>.17</u>	.45	.21	46	67	3.8	16	134
Ca	13	38	9	Yes	.20	1.2	<u>&lt;.05</u>	.23	61	44	6.0	16	173
Mg	11	33	8	Yes	.13	1.7	.68	<u>.02</u>	26	52	5.1	12	386
Fe	10	38	15	Yes	.30	2.3	.68	.20	<u>26</u>	87	19	40	384
B	12	37	28	Yes	.20	1.2	.21	.13	45	<u>&lt;1.0</u>	3.5	7.5	134
Cu	9	34	29	Yes	.20	1.1	.17	.14	39	26	<u>3.1</u>	8.5	124
Zn	11	42	14	Yes	.26	1.2	.31	.23	70	36	8.8	<u>3.8</u>	242
Mn	12	37	25	No	.35	1.5	.37	.18	53	43	6.4	16.0	<u>&lt;2.0</u>
S	14	25	6	Yes	-	-	-	-	-	-	-	-	-

season.

**Phosphorus**—slight red coloration of stem and leaves of the rapidly growing shoot. The coloring is not associated with the latest leaves but is evident on all new leaves along the growing shoot. In nutrient solution the roots are very dark in color. In the field we have observed these symptoms only in plots on virgin peat soil with no supplemental fertilization.

**Potassium**—this deficiency first showed as reddening of the leaf margins at the tip of the growing shoot. A slow growth rate and shortening internodes produced a rosette of leaves at the apex with reddish leaf margins, the whole effect resembling a miniature tulip flower. Continued growth under deficiency conditions resulted in slow degeneration and necrosis of leaves and plant death. These symptoms have never been reported from field observations.

**Calcium**—first evidence of deficiency is a marginal reddening of the apical 6-8 leaves on rapidly growing shoots. Further red color develops with increasing intensity from the tip toward the leaf base. An affected leaf dies within a few days and the entire tip of the shoot dies and turns brown.

**Magnesium**—a dark mottling of the older leaves on the shoot followed by marginal necrotic spots on the same leaves. Continued growth in a deficient condition results in dropping of the oldest injured leaves and slow progression of damage acropetally (base to tip).

**Iron**—a chlorosis of all the new growth with decreasing intensity from the tip to the base of the shoot. The symptoms were obvious within 25 days after removal of the iron supply to the plants.

**Sulfur**—the first symptom after 25 days was a slight chlorosis with slight reddening on some leaf margins. After six weeks the first affected leaves were red and speckled with small necrotic lesions and new leaves were chlorotic. At nine weeks the oldest leaves died and fell from the plants.

**Boron**—deficiency symptoms were evident only after eight weeks of growth. The terminal leaves were much smaller than normal and formed into a rosette. Slight chlorosis and reddening of leaf margins were evident. There was a proliferation of new shoots

from the basal area of the shoots.

**Zinc**—deficiency symptoms began to show at six weeks as a mild chlorosis in the youngest leaves. The symptom expression developed as red stems and reddish leaf margins on the youngest growth with mild chlorosis. After nine weeks the terminal area developed into a rosette with long, narrow, chlorotic leaves. Many axillary buds near the base of the shoots started growth with very small, deformed leaves that did not expand normally.

**Copper**—deficiency of copper was evidenced after nine weeks as a slight chlorosis and leaf margin reddening in the latest leaves to form.

**Manganese**—no deficiency symptoms were evident after nine weeks of growth.

The element concentrations in deficient plants are not those at which symptoms first showed. They are the concentrations after nine weeks of plant growth in the absence of the selected element. These data may not be used to provide deficiency levels but rather an indication of the quantity in the tissue that may sustain survival of the plants.

<sup>1</sup> D. T. G. Greidanus and Mr. Glen Boehlke established the planting and collected samples for analysis. The author appreciates their assistance.



## Crane for Hire

Three quarter yard crane with matts, clam and dragline. Have had years of experience in digging ponds, stumping and general bog work.

GEORGE R. NAVA CO.  
11 Maple Avenue  
Kingston, Mass. 02364  
Call 585-4514

## Niemi Electric Co.

ROBERT NIEMI

ELECTRICAL CONTRACTORS  
HEAT, LIGHT and POWER WIRING

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL

TEL. 295-1880

Robert Niemi Pinchurst Dr.

Warcham, Mass.



# weather watch

## MASSACHUSETTS

July averaged out just barely on the warm side at 0.2 of a degree a day above normal. The second week was very hot and built up enough degrees on the plus side to balance the rest of the month. Maximum temperature was 95 degrees on the 9th and the minimum was 54 degrees on the 28th and 31st. The only warmer than average period was from the 7th to 11th. Cooler than average days were the 5th, 20th, 24th and 30th.

Rainfall totaled 3.22 inches or 1/3 inch above normal for the month. There were measurable amounts on 12 days, with .90 inch on the 4th as the greatest storm. We are now 1 3/4 inch below normal for the year, but 5 inches ahead of 1980.

\* \* \* \* \*

June was warm, averaging 1.5 degrees a day above normal, the warmest since 1976 but only 10th warmest in our records. Maximum temperature was 85 degrees on the 17th and the minimum was 49 degrees on the 1st. The only cooler than average days were the 2nd and 3rd. Warmer than average days were the 11th, 17th, 18th, 28th and 29th.

Rainfall totaled a very nice 4.54 inches or about 1 1/4 inches above normal. There were measurable amounts on 10 days, with 1.91 inches on the 20th and 21st as the greatest storm. Much of the month was dry with over 3 inches occurring from the 20th through 25th. We are now slightly more than 2 inches below normal for the first six months of 1981, but 3 inches ahead of 1980 for the same period.

There were frost warnings issued on five nights during the 1981 frost season. The first was very early—April 21st—and the last was also unusual, coming on May 23rd. This is the first year without a June warning since 1969. There was some serious frost injury on the lower Cape and Nantucket, probably occurring in early May on the former and on April 21st or 22nd for the latter. Many reports of “umbrella bloom” around

the entire growing area and we are not sure when this injury may have happened, possibly on or about April 15 or in late December when the temperature plunged 40 degrees in less than 12 hours to below 0 degree F readings. The five warnings in 1981 compare to 13 in 1980, four in both 1979 and 1978 and 15 in 1977.

I.E.D.

## WASHINGTON

Temperatures during July were average, with three days reading 70 or over. Maximum temperature was 75 degrees on the 3rd. Minimum was 40 degrees on the 8th.

Precipitation total was only 1.23 inches, which is just below normal, but, following the 6.76 inches in June, it seemed very dry. There was measurable rainfall on 13 days, with 0.45 inch on the 11th as the greatest storm. We are about 2 1/2 inches below normal for the year to date and slightly under 1/2 inch ahead of 1980 for the same period.

\* \* \* \* \*

May and June continued mild with a May high temperature of 73 degrees on the 29th and minimum of 35 degrees on the 12th. The June maximum temperature was 71 degrees on the 25th and the minimum temperature of 39 degrees came on the 15th.

Precipitation for May was about average with 3.41 inches and the great-

est storm, on the 25th, was only .50 inches. June reached a precipitation total of 6.76 inches, a 20 year high. The greatest amount, 1.42 inches, came on the 19th.

There were only 10 days in June without measurable precipitation, making it hard for the bees to pollinate in the cranberry bogs of this area. The bloom is abundant and a good fruit set is hoped for, depending on the overall action of all pollinators.

A. Y. S.

## Wanted

## Bailey Separators

FRANCIS J. FARRELL

23 Blueberry Way  
Marion MA 02738

(617) 748-0031

(617) 748-1415

## Dave Fish

## CRANE SERVICE

Drag Line, Clam Shell,  
Land Clearing, Water  
Holes Dug

Pembroke, Mass.  
293-2976



# Cranberry pesticide regimes

## A preliminary study of their influence on damage and yield

By CHARLES F. BRODEL  
and BERT M. ZUCKERMAN  
Massachusetts Cranberry  
Experiment Station

A pesticide generally is applied to control a pest population which threatens to damage crop plants and reduce yields. When applying a pesticide, an applicator might assume that it will affect only organisms of the same type as the target pest, such as insects, but not other types, such as fungi. Also, he might assume that the application, by virtue of its effect on a pest population, automatically will lead to a yield increase. Are assumptions such as these valid?

To attempt a preliminary answer with regard to cranberry, we conducted a field test on State

Bog in East Wareham. We wanted to know the following: (1) if fungicide applications aimed at reducing the incidence of fruit rot would have an effect on cranberry fruitworm damage, (2) if insecticide applications timed to reduce the amount of cranberry fruitworm damage would have an effect on the incidence of fruit rot, and (3) if fungicides and insecticides used in specified regimes would have any unanticipated impact on yield. Our findings are reported here.

**Procedures.** In the spring of 1980, a Latin square was staked out on a uniformly vined area of 'Early Black' cranberry. Each of 25 plots within this square measured 5 by 5 feet and was separated from nearby plots by

1-foot-wide pathways. Each was randomly assigned one of the following insecticide-fungicide regimes:

(1) Two FRUIT ROT treatments with 80 percent maneb plus 20 percent zinc sulfate (Dithane M-22 Special with zinc) at 10 percent and 75 percent bloom.

(2) Two FRUITWORM treatments with parathion 8E in mid and late July.

(3) FRUIT ROT PLUS FRUITWORM treatments as in (1) and (2).

(4) FRUIT ROT treatments as (see the next page)

### RUSSELL MAKEPEACE . . .

(continued from page 4)

It was a 24 hour a day operation with trays going in and coming out every half hour.

The processed fruit was packaged and then placed in a sealed metal can which, in turn, was put inside a wooden box which was nailed shut.

It had to be floatable, because Russell Makepeace said, "some of the supplies for the forces had to be thrown overboard and floated ashore."

"We put out a super product," Russell said. "We were given an Agricultural 'A' award (Aug. 13, 1945) for excellence of the product. Most buildings along the Main Street in Wareham were covered with flags."

The A.D. Makepeace president also has devoted much of his time and energy to civic life. In his hometown of Marion, he has been a selectman, moderator, school committeeman and planning board member.

Office  
295-2222

K. Beaton  
295-2207

## BEATON'S CRANBERRY GROWERS SERVICE



WAREHAM, MASS.

D. Beaton  
888-1288

P. Beaton  
947-3601

Specializing in

- DITCHING
- NETTING
- SANDING
- WEED CLIPPING
- COMPLETE BOG MANAGEMENT
- HARVESTING (Wet and Dry)

Also

Complete line of portable Crisafulli Pumps 2" - 16"  
Plastic netting for suction boxes

in (1) PLUS a PRE-BLOOM treatment with parathion 8E in mid June.

(5) NO TREATMENTS for fruit rot, fruitworm, and pre-

bloom insects.

**Fruit Rot Treatments.** Treatments were made on June 18 and July 1 with a 1-gallon Hudson back-pack sprayer. On both dates maneb at

9 lbs. of formulation per acre was applied in water at a rate of 300 gallons per acre. No precipitation occurred within 24 hours after

(turn the page)

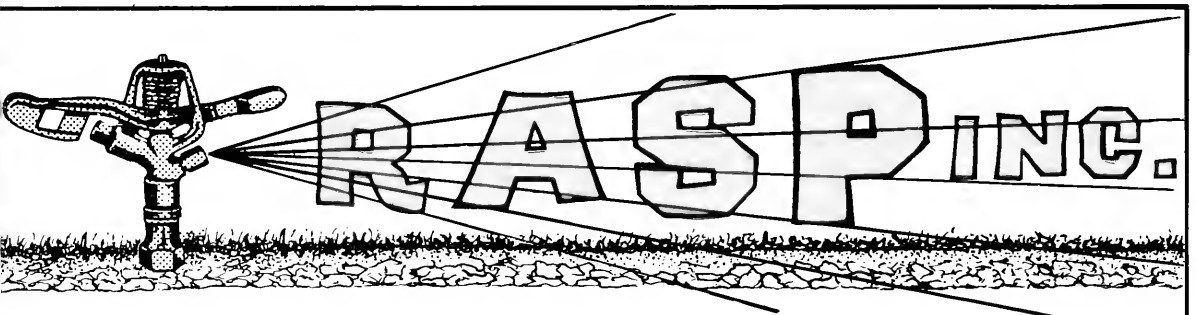
Table 1. Cranberry pesticide regimes and outcomes for rot, fruitworm, and yield in 1980<sup>a, b</sup>

<u>Pesticide regime</u>	<u>Avg % rot (by weight)</u>		<u>Avg % infested berries</u>	<u>Avg yield salable berries</u>	
	<u>At harvest</u>	<u>5 weeks storage</u>		<u>Actual</u>	<u>Adjusted</u>
Fruit rot	2.3 ab	5.2 a	10.2 a	849 b	970
Fruitworm	1.9 ab	8.8 a	2.5 b	913 b	955
Fruit rot + fruitworm	1.0 b	3.5 a	0.8 b	1126 a	1147
Fruit rot + pre-bloom insects	3.4 a	4.2 a	8.3 a	606 c	686
Untreated	2.5 ab	9.7 a	9.6 a	796 b	906

<sup>a</sup> See text for pesticide formulations and application times.

<sup>b</sup> All values, with the exception of adjusted yields, are averages of 5 replicates. Data for rot and fruitworm were subjected to analysis of variance. Averages within each column followed by a different alphabetic letter are significantly different.

<sup>c</sup> Yield in grams per 9-ft<sup>2</sup>.



**AUTHORIZED AGWAY REPRESENTATIVE**

**LICENSED SPRAYING OF PESTICIDES (Seasonal)**

**WITH A COMPLETE LINE OF:**

**CRANBERRY INSECTICIDES • FUNGICIDES  
HERBICIDES • MITICIDES • and FERTILIZERS  
IN STOCK!**

•

**ROBERT A. ALBERGHINI – SPRAYING  
RFD 5 PLYMOUTH STREET, CARVER, MASS. 02330**

**TELEPHONE: 866-4429**

For further information, call evenings after 5:30



each treatment.

On September 17 a 3 by 3 foot frame was placed over the most uniformly vined area of each plot. Berries within the enclosure were harvested with a hand scoop, but no attempt was made to pick every berry. In the laboratory, berries were individually rated as "salable" or "rotted," grouped, and weighed to obtain percentages of rotted fruit and total yields. Cup counts of salable berries were used to determine differences in berry size among treatments. Salable berries were then placed in storage for five weeks, at which time a second assessment of rot was made based on original total yields.

**Pre-bloom and Fruitworm Treatments.** The appropriate plots received either one pre-bloom treatment on June 13 or two treatments for cranberry fruitworm on July 14 and 24. On all dates parathion 8E at 1 pint per acre was applied in water at 400 gallons per acre, using a 1 gallon Hudson back-pack sprayer. Precipitation did not occur within 24 hours after each application.

On October 4 a circular metal hoop enclosing an area of 1 square foot was dropped onto an unharvested part of each plot, and the berries inside the hoop were

carefully hand-picked. No regard was given to berry size or condition. Berries were inspected and percentages of infestation determined.

**Analysis of Data.** All data pertaining to fruit rot and fruitworm damage, cup counts, and yield of salable berries were analyzed statistically, using analysis of variance and one other test.

**Results and Discussion.** Results of the experiments are presented in Table 1. Regarding fruit rot, low levels of disease in all plots did not allow the effectiveness of maneb treatments to be demonstrated. At harvest the percentage of rotted fruit in the "fruit rot plus pre-bloom insects" plots seemingly exceeded that in the "fruit rot plus fruitworm" plots. This difference did not occur after fruit had been stored for five weeks, however. Although not statistically significant, slightly greater percentages of rotted fruit occurred in stored fruit that had not been treated or that had been treated only for fruitworm.

As expected, significantly less fruitworm damage occurred in all plots receiving post-bloom applications of parathion (Table 1). Fungicide treatments with or without a pre-bloom parathion

treatment imparted no protection whatever against fruitworm attack and resulted in crop reductions of 8 to 10 percent.

Average yields resulting from the use of particular pesticide regimes differed substantially from expectations in two cases. In the first case, actual yields (Table 1) showed that plots treated exclusively for fruit rot or fruitworm provided 7 percent and 15 percent more salable fruit, respectively, than did plots left untreated. In contrast, yield increases due to treatments for both fruit rot and fruitworm approximated 42 percent. This increase is almost twice as large as would be expected if one were to sum increases due to the fungicide alone and the insecticide alone. Thus, a so-called "synergistic effect" seems to have been demonstrated. This "synergistic effect" again was manifested when average yields were adjusted to account for

# DIRECTORY for Cranberry Growers



Since 1933

Members of  
the SICPC

## Gage-Wiley & Co., Inc.

### STOCKS & BONDS

40 Court Street, Plymouth, Mass 02361

617-746-3322 Call Toll Free in Mass 1-800-242-0263

### The CHARLES W. HARRIS Company

451 Old Somerset Avenue  
North Dighton, Mass  
Phone 824-5607

AMES  
Irrigation Systems  
RAIN BIRD  
Sprinklers  
HALE  
Pumps

Highest Quality Products

with Satisfaction Guaranteed

losses due to fruit rot and fruitworm. Adjusted average yields (Table 1) revealed the following increases over untreated plots: 7 percent for the fruit rot regime, 5 percent for the fruitworm regime, and 27 percent for the fruit rot plus fruitworm regime.

One possible explanation for these yield differences might be that berry size differed among treatments. Cup counts, however, indicated that berries attained a similar size regardless of pesticide regime. Average counts for treatments, ranging from 103 to 108, were shown not to be statistically different.

In the second case, plots treated for fruit rot and pre-bloom insect pests produced markedly less fruit than did untreated plots (Table 1). The fruit rot treatment does not seem to have reduced yields because plots treated exclusively for fruit rot produced as much as or more than untreated plots. Evidently, the pre-bloom application of parathion directly or indirectly led to lower yields. It could be, for instance, that parathion injured flower parts or interfered with plant functions which are essential to successful pollination and fruit set. An equally plausible explanation would be that residue levels during early to mid bloom were high enough to repel pollinators. Again, yield differences could not be attributed to differences in berry size, for cup counts among treatments were statistically equivalent.

In conclusion, the particular pesticides used on cranberry in this test did not exhibit efficacy against target pests other than the ones for which they are commonly recommended. However, two of the pesticide regimes led to higher or lower yields than expected. Whether yield outcomes were artifacts or manifestations of cause-and-effect relationships hopefully will be determined by additional field tests during the 1981 growing season.

Acknowledgment. We extend our

thanks to M. Geist for determining yields, cup counts, and percentages of fruit rot, and to M. Yellope for hand-picking berries needed to assess fruitworm damage.

## regional news notes

### Massachusetts

By IRVING DEMORANVILLE

Dr. Robert Devlin of the Massachusetts Cranberry Experiment Station attended the board of directors meeting of CAST held in Memphis, Tenn., on July 15 and 16.

\* \* \* \* \*

Reports and observations indicate that the majority of bogs came through the winter in great shape and proceeded to grow and flower earlier than usual.

A small number of bogs were slow to develop and appeared in less than grade A conditions early in the season but are looking better now. Most of these were dry-harvested and were out of water for flooding in the fall and early winter.

There was no winterkill injury and only minimal oxygen deficiency injury. Spring frosts did not cause

any great reduction overall.

Pollination weather was good, with rain coming at opportune times.

The prospects look excellent at this time and we appear to have a possibility of matching or surpassing the 1980 crop.

In reference to the 1980 crop, we have been advised by the Crop Reporting Service that the official Massachusetts crop was 1,185,000 barrels, which is a record by 5,000 barrels over the previous record set in 1978.

## Mike's Portable Welding

Cranberry Equipment  
Built and Repaired

*Clippers, Flumes  
and Wheel-offs,  
all types of equipment*

**FREE ESTIMATE**

(617) 748-0014

(617) 748-1415

(617) 748-0031

## M. C. Howes



MERT HOWES  
295-5542

619 COUNTY ROAD  
W. WAREHAM, MASS.  
02576

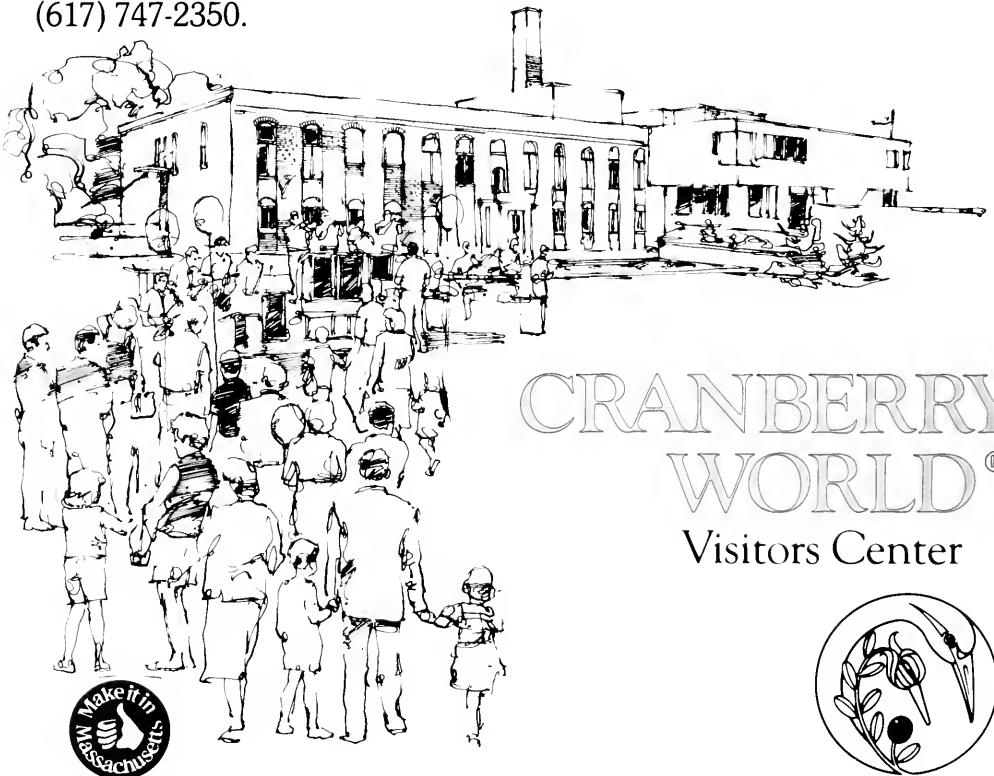
Specializing in  
Agricultural Construction

*Flumes  
Canals  
Land clearing  
Sanding  
Water holes  
Ditching  
Dikes  
Grading*

# WHAT'S IN A BOG?

Cranberries. A delightfully delicious fruit well worth learning about at Ocean Spray's fascinating Cranberry World® in Plymouth. Walk around working cranberry bogs. Look at cranberry art and antiques. Listen to our boardwalk concerts. And view our changing monthly art exhibits. Free refreshments, too. And, best of all, free admission for everyone. Come find out what's in a bog. It'll boggle your mind.

Open daily April 1 through November 30th, 9:30 a.m. to 5 p.m. Free Admission. Near Plymouth Rock. Group reservations required. For information write Cranberry World, Ocean Spray Cranberries, Inc., Plymouth, Mass. 02360 or call (617) 747-1000 or (617) 747-2350.



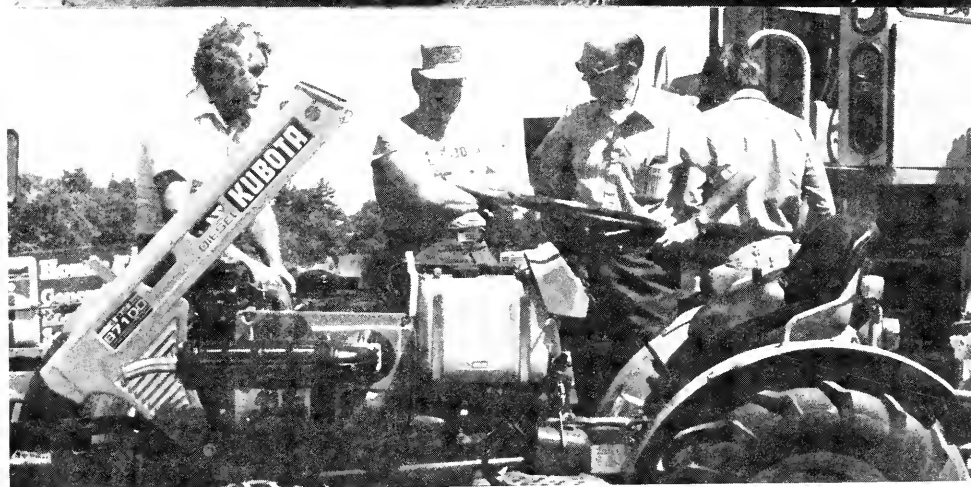


# CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

Volume 45, No. 10

October 1981



**Equipment show . . .6**

★★★★★

**Crop forecast . . .3**

Library UMass  
Serials Section  
Amherst MA 01002

## IMAGINE...

an electronic voice calls you at home and warns you of impending disaster. That voice belongs to Chatterbox™.

### A TALKING THERMOMETER

keeping you in touch and in control of the perilous temperature conditions that can cost you an entire crop. Simply pick up the phone and call your facility, local or long distance. Chatterbox™ will answer, tell you the temperature, advise you whether the pumps or other equipment are operating and await your instructions. Let Chatterbox™ know what temperature or other condition is of concern and it will phone and give warning.

**Demonstration Hotline.** Chatterbox™ is waiting to talk to you! Pick up a phone, dial (415) 658-6716 and hear it for yourself. For more information, leave us your name, address and phone number in the time provided at the end of the demonstration.

**Added value.** Chatterbox™ saves you money and peace of mind.

- Affordable and easy to use.
- Saves driving time.
- Range from -20° to +120°F.
- Provides the unprecedented security of a 24-hour guard at any field or storage location.
- Operates three months on its rechargeable batteries.

**Give you ideas?** Chatterbox™ can be used to report pressure, water level, vandalism, burglary, etc. You may come up with many innovative applications of your own that Chatterbox™ is perfectly equipped to handle.

# CHATTERBOX™

a very sound investment for 1981  
by the makers of Tempwatch®

Available from the following dealers:

#### WISCONSIN CRANBERRY CONSULTANT SERVICE

BOX 429  
449 GREENWOOD DRIVE  
WISCONSIN RAPIDS, WISCONSIN 54494  
(715) 423-4871

#### DECAS CRANBERRY CO., INC.

219 MAIN STREET  
WAREHAM, MASSACHUSETTS 02571  
(617) 295-0147

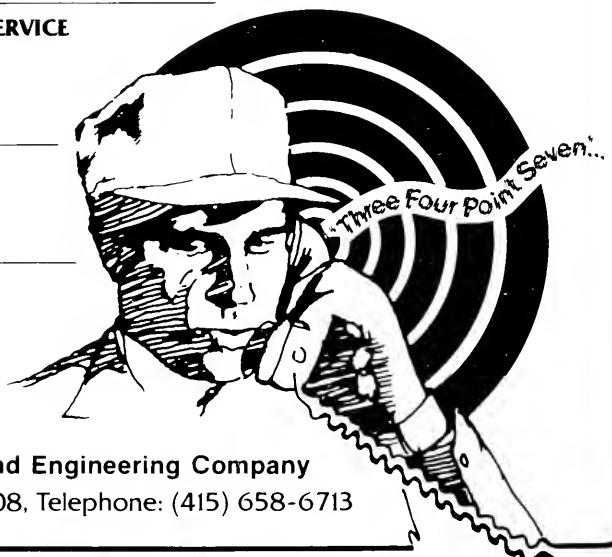
#### DONALD HATTON

ROUTE 1, BOX 432  
GRAYLAND, WA 98547  
(206) 267-1807

# RACO®

Manufacturing and Engineering Company

1400 62nd Street, Emeryville, CA 94608, Telephone: (415) 658-6713





# Crop forecast: 3% down

The U.S. crop in 1981 is expected to total 2.62 million barrels, 3 percent less than last year's record crop but 6 percent more than 1979 production, according to the New England Crop and Livestock Reporting Service of the U.S. Department of Agriculture.

Based on early August conditions, Massachusetts and Wisconsin expect a decrease in production but Oregon and Washington expect larger production than in 1980.

The Massachusetts cranberry crop is forecast at 1.18 million barrels, fractionally less than the record crop of 1980 but up 9 percent from the 1979 production. Bloom was earlier than normal and the set was average to heavy. Current berry size is reported to be medium to large. Rainfall has been timely and adequate and the spray program has been effective.

Production in Wisconsin is forecast at 966,000 barrels, down 11 percent from 1980 but up 7 percent from 1979. Water has been adequate and many producers report an average crop. However, winter damage was received throughout the state and the crop was further damaged in West Central Wisconsin by a series of hailstorms, according

(continued on page 12)



DR. GRAHAM and *Chrysemys rubriventris*.

(CRANBERRIES photo by Carolyn Caldwell)

## Red belly shows up

An unusual visitor at the Cape Cod Cranberry Growers Assn. annual meeting this year was a 40 year old *Chrysemys rubriventris*, otherwise known as the red-bellied turtle.

Attempts are currently underway to save the reptile, which has been declared an endangered species by the U.S. Fish and Wildlife Service.

Dr. Terry Graham, associate professor of biology at Worcester State College, who brought the red belly, is embarking on a public education effort that he believes could lead to the locating of undiscovered populations of the turtle. He figures cranberry

growers are a good bet in his effort.

Ponds are the turtle's main habitat but "cranberry bogs, reservoirs and ditches sometimes support the young," Graham said. Last year two new populations were discovered in Carver.

Graham hopes public awareness, as well as proper management, will lead to an increase in the turtle's population.

The red-bellied is easily confused with the more common eastern painted turtle, he said. Interested parties can obtain a detailed description by writing or calling Dr. Graham at Worcester State College, Worcester MA 01602.

---

### COVER PHOTO

PART OF THE equipment on display at the annual meeting of the Cape Cod Cranberry Growers Assn. Story on page 6.

(CRANBERRIES photos by Carolyn Caldwell)

---



# Evital<sup>®</sup> controls nutgrass and cutgrass. And 14 more troublesome weeds in cranberries.

Evital doesn't fall short in effective weed control. It stops **16** profit-robbing weeds, including tough ones like smoke grass, spike rush, and barnyard grass.

- **evital** is the pre-emergence herbicide that now can be applied in the fall or spring.
- **evital** stops tough weeds in cranberries better than any other granular herbicide.
- **evital** is a sand-core granule making it an outstanding aerial formulation; easy ground application as well.
- **evital** is the No. 1 choice to apply over newly-sanded bogs to prevent weed emergence.

It's the broad spectrum weed-control herbicide that cranberry growers depend on year after year.

(Use herbicides effectively. Read and follow label directions carefully.)

  
**evital<sup>®</sup>**

**A GRANULAR HERBICIDE FOR CRANBERRIES**



Sandoz, Inc. Crop Protection / 480 Camino Del Rio South / San Diego, CA 92108

Copyright, 1981, Sandoz, Inc.

# editorial



## Farming and stress

According to a recent study, farm ownership ranks among the top 10 stress-related jobs.

No great surprise here, perhaps. Farmers have to deal with so many variables—weather, fluctuating prices, labor, equipment breakdowns, planting, cultivating, harvesting, insects and animals, vandals, marketing, bookkeeping, government rules and regulations, etc., etc., etc.—that stress is likely to be a regular companion.

On the other hand, at least in this writer's experience, farmers (cranberry growers included, of course) appear to be pretty happy and content with their lot. They seem pleased with their independence and relish coping with daily challenges.

(Unlike air traffic controllers, farmers don't have nice, fat, tax free disability pensions to fall back on if they bawl loudly enough about stress.)



## A Solid Investment

requires solid financing . . . and that's our specialty. Credit for equipment, land, buildings . . . all your financial needs. For Credit . . . Plus a full range of other finance-related services, see your local Farm Credit representative.

P.O. Box 7 Taunton, Mass. 02780 Tel: (617) 824-7578  
Office: Located on Rt. 44, ¼ Mile West of Rt. 24

## CRANBERRY GROWERS REALTY

Listings of buyers and sellers welcomed on cranberry acreage and upland.

Appraisals

**DOUGLAS R. BEATON**

**E. Sandwich, Mass.  
02537**

**(617) 888-1288**

## CRANBERRIES

*THE NATIONAL CRANBERRY  
MAGAZINE*

*VOLUME 45—NO. 10*

*October 1981*

Send correspondence to:

**P.O. Box 249**

**Cobalt CT 06414**

**Phone: (203) 342-4730**

**Bob Taylor, Publisher/Editor**

### ADVISORS, CORRESPONDENTS

**MASSACHUSETTS**—Dr. Chester F. Cross, Director, Massachusetts Cranberry Experiment Station; Irving Demoranville, Extension Cranberry Specialist, Mass. Cranberry Station; Carolyn Caldwell, Rochester.

**NEW JERSEY**—Philip E. Marucci, Cranberry and Blueberry Specialist, Cranberry and Blueberry Laboratory, Chatsworth; Elizabeth M. Carpenter, Chatsworth.

**NOVA SCOTIA**—I.V. Hall, Botanist, Research Station, Kentville.

**OREGON**—Arthur Poole, Coos County Extension Agent, Coquille.

**WASHINGTON**—Azmi Y. Shawa, Horticulturist and Extension Agent in Horticulture, Coastal Wash. Res. and Ext. Unit, Long Beach.

**WISCONSIN**—Tod D. Planer, Farm Management Agent, Wood County; Joan E. Humphrey, Friendship.

CRANBERRIES is published monthly by the Taylor Publishing Co., Wellwyn Drive, Portland CT 06480. Second class postage is paid at the Portland, Conn., Post Office. Price is \$8 a year, \$15 for two years, 80 cents a copy in the U.S.; \$9 a year in Canada; \$10 a year in all other countries. Copyright 1981 by Taylor Publishing.  
ISSN: 0011-0787

## Equipment awards made

# Cross gets grand party

By CAROLYN CALDWELL

A dozen speakers and 425 growers gave tribute to Dr.

Chester E. Cross, director of the Massachusetts Cranberry Experiment Station in East Wareham, on Aug. 18, a picture postcard day. Cross will retire Nov. 30 after 40 years service.

The agenda for the Cape Cod Cranberry Growers Association's 94th Annual Meeting was symbolic of the long career of Cross in its fullness. There were equipment displays and awards, door prizes, a tour of the state bog research plots, a chicken barbecue lunch, a prediction of the year's crop, election of CCGA officers—and, for the Crosses, the trip of a lifetime.

**SPEAKERS** included representatives from the industry, University of Massachusetts, the state, the U.S. Department of Agriculture and the Massachusetts Farm Bureau. Portraits, plaques, citations and mementos were showered on Dr. Cross and his wife, Shirley, also a Ph.D. and the illustrator of his publications.

Russell Makepeace, president of the A.D. Makepeace Co., presented Cross with an englassed Franklin variety, upright vine which he called a "cross" between Early Blacks and Howes.

Praise flowed lavishly for the longtime director who protested that his staff should be given the credit bestowed on him. A series of hearty roasts, like good cranberry juice, kept the meeting refreshing.

Prof. J. Richard Beattie, retired associate dean, Cooperative Extension Service, recalled "how Chester worked day and night to try to counteract the devastating publicity" resulting from the 1959 amino triazole scare. He also praised "Chet's determination to set things straight" concerning popular but poorly substantiated attacks on pesticides by "well intentioned" environmentalists. He lauded Cross as

an "articulate spokesman" who has "assembled a topnotch staff."

Dr. John W. Dennison, director of the Stockbridge School of Agriculture and associate dean of administration, was the main speaker. He held the growers, who are not used to sitting for long, in rapt attention. Dennison followed a serious explanation of the administrative problems involved with university extension funding with an outrageous roasting of Cross. His description of Cross as a country bumpkin on a holiday in Boston left the growers wiping tears of laughter from their eyes.

**THE HIGHLIGHT** of the day was the presentation by the CCGA of a pair of round trip tickets to La Paz, Bolivia to the Crosses. Their son, Peter, lives there. Peter and his wife have two children, one of whom the Crosses haven't met.

The Crosses beamed when presented with the gift. Said Shirley: "This is what we say when we get up every day: This is the day the Lord hath made; let us rejoice and be glad in it."

The day was indeed special—cool, clear, crisp weather-wise and filled

with eloquence; in short, a replication of the personality of Chester Cross.

Dr. William Tomlinson, retired experiment station entomologist, wished the retiring director and his wife "as much fun in retirement as I have had in mine."

Meanwhile, there are a few more months left on duty and a full schedule ahead.

"Harvest time is always busy here (at the station)," Chester said after the meeting.

Shirley had charge of the cranberry exhibit at the "Big E" in Springfield, Mass.

Chester had a meeting scheduled with the National Association of State Directors of Agriculture and planned to take them on a tour of cranberry country.

And harvest time was coming up at Shirley's bogs.

## EQUIPMENT WINNERS

Dan O'Connor, owner of Agawam Bogs, won \$100 for his sanding machine in the cranberry equipment not for sale classification at the CCGA equipment contest held in conjunction with the annual meeting.

O'Connor has been growing cran-

# M. C. Howes



MERT HOWES  
295-5542

619 COUNTY ROAD  
W. WAREHAM, MASS.  
02576

Specializing in  
Agricultural Construction

*Flumes*  
*Canals*  
*Land clearing*  
*Sanding*  
*Water holes*  
*Ditching*  
*Dikes*  
*Grading*



**SCENES FROM THE ANNUAL MEETING:** Left, top—Dr. Chester E. Cross, director of the Massachusetts Cranberry Experiment Station, and his wife, Shirley; center—Clark Griffith, newly elected president of the Cape Cod Cranberry Growers Assn., testing a track backhoe; bottom—Part of the huge crowd that partook of the luncheon. Above—John C. Decas, winner of the commercial equipment exhibit, displays his plaque. (CRANBERRIES photos by Carolyn Caldwell.)

berries in the Wareham-Carver area for 13 years, leaving a job in the shoe manufacturing industry to do so.

"I got started with five acres and would bring back old bogs when people said I was crazy," he said. Cranberries then fetched \$9 a barrel. Today O'Connor has 125 acres of good looking bogs.

John C. Decas won the commercial equipment award for his "Chatterbox,"

a frost warning machine that monitors bog temperature constantly and can be "called" from any place by telephone for the exact temperature reading.

Another notable entry was a wheel-off rig built by Scott Harding of Decas Cranberry Co. It is powered by a two cylinder, opposed Onan power unit using a four disc, clutch gear reduction unit and it has a four speed standard transmission. Its

simple design features coil front helper springs, high flotation tires and electric start.

**NEW OFFICERS**

Clark Griffith of Carver was elected CCGA president at the annual meeting. Griffith is a third generation cranberry grower and he has been a CCGA director for eight years. He has just completed a two year term as

second vice president.

The Weweantic River Committee that has been studying flood control using matching state aid funds may have become "a non-issue because of (Proposition) 2½," said Griffith, committee chairman. The funds may no longer be available because of the tax limiting law, he said.

Earlier this year, growers opposed a \$2.6 million project proposed by the U.S. Soil Conservation Service which would involve dikes and water storage areas along the Weweantic River to control flooding as well as provide additional water.

"Even a project like this would be hard pressed to control flooding," such as occurred in the 1978 flood, Griffith said. Instead, he said, growers would favor a less drastic solution, such as "getting the stream cleaned, getting the vegetation moved out and cutting trees" to provide better drainage in the area. The Weweantic River Committee will meet later this fall.

Griffith is also on the promotion committee with Jean Gibbs and Dr. Shirley Cross. The committee organizes exhibits at the Edaville Railroad Cranberry Festival and the Eastern States Expo.

During his term as president,

Griffith hopes to reorganize the advisory committee. The committee has done "quite well," he said, but he would like to see "new people involved."

Also, Griffith recommends formation of a committee to "get out our bylaws, revise them, propose changes and update them." He wants the CCGA bylaws published in time for the centennial meeting, which is six years away.

Other officers elected were: George Andruk, first vice president; Chris Makepeace, second vice president; Irving Demoranville, reelected as secretary-treasurer.

Directors include: Elton Ashley Jr., Arthur Handy, Douglas Beaton, Wilho Harju, John C. Decas, Willard Rhodes, Sherwood Griffith (replacing Robert Hiller), Robert St. Jacques, David Mann. Honorary directors are Ruth Beaton and Dr. Chester Cross.

Blood predicted 1.18 million barrels for Massachusetts, down 500,000 from last year.

"A lot of growers feel it is low," said Irving Demoranville of the Massachusetts Cranberry Experiment Station. If the growers are right, he said, it just may be another record year.

Outgoing CCGA president John C. Decas concurs. He thinks the USDA prediction for Massachusetts is 100,000 barrels low.

"1.3 million barrels is my figure for Massachusetts," Decas said.



## CRANBERRY FETE SET

The Massachusetts Cranberry Festival will be held Oct. 3-4 and Oct. 10-12 at the Edaville Railroad in Carver, Mass.

Activities include a ride around the cranberry bogs on the narrow gauge railroad.

Tickets and information can be obtained from the Plymouth County Extension Service, the Plymouth County Development Council or Ocean Spray Cranberries.

## CROP FORECAST

Richard Blood of the USDA's Crop Reporting Service told the annual meeting that crop forecasts based on grower assessments through the month of August have been within 10 percent of the outcome over the last decade.



A MOST COMPLETE INVENTORY OF IRRIGATION ACCESSORIES

# LARCHMONT

ENGINEERING & IRRIGATION, INC.

P.O. Box 66, 11 Larchmont Lane, Lexington, MA 02173 (617) 862-2550

IRRIGATION EQUIPMENT DESIGNED ESPECIALLY FOR THE CRANBERRY INDUSTRY

FOR EXAMPLE:

*Gorman-Rupp Self Priming Electric Sprinkler Pumps  
Proven Quick Couple Riser  
Ingersoll-Rand Water Harvest Pumps  
Aluminum Insert Coupling For 4" Poly Pipe*

Contact:

Larchmont Engineering  
Phil Tropeano, President  
(617) 862-2550 (Call Collect)



Contact:

Bill Stearns, Plymouth, Mass.  
(617) 746-6048  
(617) 746-2610



# BARK RIVER

*Culvert and Equipment Co.*



## OUR BUSINESS

SERVING CONSTRUCTION . . . .

MINING . . . .

MUNICIPALITIES . . . .

LOGGING . . . .

AND

## Wisconsin Cranberry Growers

WE ARE THE NO. 1 CULVERT PRODUCT  
SUPPLIER IN WISCONSIN & UPPER MICHIGAN.  
(ALUMINUM PIPE, HAND WHEEL OPERATED GATES, ETC.)

. . . . AND WE'RE THE AREA DISTRIBUTOR FOR

**International** CONSTRUCTION & INDUSTRIAL EQUIPMENT  
AND OTHER EQUIPMENT MANUFACTURERS  
(CRAWLERS, TRACTORS, EXCAVATORS, LOADERS, ETC.)

## Can We Serve You? . . .

**EAU CLAIRE**  
(715) 835-5157

**GREEN BAY**  
(414) 435-6676

**ESCANABA**  
(906) 786-6920

**IRONWOOD**  
(906) 932-0222

**MADISON**  
(608) 222-4151

**MILWAUKEE**  
(414) 461-5440

## For cranberry in Wisconsin

# Foliar nutrient concentration studies

### IV Proposed Standards

By Malcolm N. Dana  
Department of Horticulture  
University of Wisconsin-Madison

The data presented in the first three parts of this report give a wide base for proposing a range of concentrations for adequacy levels of nine mineral elements in cranberries. The seasonal changes in concentrations of certain elements (K and Ca) emphasize the need to correlate sampling time with any standard proposed and the differences among tissues point out the importance of selecting the correct tissue for sampling.

**THE NATURE OF GROWTH** of the cranberry plant with its small and nearly apetiolar leaf precludes the convenient harvest of leaves separately from stems and certainly precludes the separate harvest of petioles. Fortunately, the mineral concentrations in new leaves parallel those in new stems and both tissues seem to give a more reliable estimate

of changing concentrations than do the one year old and older tissues. Also, the newly grown shoots have less hazard of external contamination with flood water residues than do the older tissues. For these reasons, it is proposed that the samples for analysis should be composed of new shoot growth including both leaf and stem tissue.

The time of sampling is suggested to be the period of June 20-August 1. This period catches the new tissue at the median levels of P, Ca, Mg, B, Cu, Zn and Mn, low seasonal levels of Fe, and high levels of K. Earlier sampling may introduce the difficulty of getting adequate materials for analysis and later sampling increases the probability of contamination with externally applied materials that may not be easily removed from the tissue samples.

**THE CRITICAL DATA** from the three different studies are abstracted and brought together in Table 1. From these data, a series of three ranges of concentration were constructed to reflect the low, adequate and high concentrations as found in healthy cranberry vines in Wisconsin.

The median level may be

considered as the adequacy or optimum level for each element. Observed levels in the low range raise a cautionary note to suggest that a corrective application of appropriate fertilizer should be considered. Observed levels in the high range do not suggest any hazard to the crop. We have found manganese levels as high as 8000 ppm in healthy vines and iron levels at 300+ ppm or more. The plants seem not to accumulate excessive copper as evidenced by the fact that copper compounds are commonly used in repeated applications for fungicide treatments without evidence of detrimental effect. Quantities of copper and iron that defoliate herbacious weed species do not damage cranberry foliage when used for weed control purposes.

Boron may be a toxic element when present in excessive quantities in many orchard species. We have no evidence of such an event in cranberries. The highest concentration we have measured was 34 ppm and that was not associated with apparent harmful effects. Whether or not cranberry will accumulate higher concentrations under special circumstances h

## Mike's Portable Welding

Cranberry Equipment  
Built and Repaired

*Clippers, Flumes  
and Wheel-offs,  
all types of equipment*

**FREE ESTIMATE**

(617) 748-0014

(617) 748-1415

(617) 748-0031



Since 1933

Members of  
the SIPC

**Gage-Wiley & Co., Inc.**

**STOCKS & BONDS**

Village Landing, Plymouth, Mass. 02361  
Two blocks south of Cranberry World

617-746-3322 Call Toll Free in Mass 1-800-242-0263

not been tested in our work.

The standard for nitrogen proposed in Table 1 is in line with levels of N found in field grown cranberries in several reported studies. We have been able to demonstrate levels of over 2 percent N in cranberries grown in nutrient solution with high levels of available ammonium nitrogen. Under these conditions the vines were excessively vegetative and were well beyond optimum levels for flowering and fruiting. Thus the standard is set at approximately 1 percent for mature, productive vines. A better diagnosis for nitrogen status continues to be visual observation of vines for leaf color, leaf size and extent of upright growth.

**THE PROPOSED** median standards are a range of elemental concentrations chosen to include the majority of sample determinations from healthy, productive vines in several marshes in widely separated areas. The similarity of data at any time of sampling and for any given tissue, regardless of location, lends credence to the idea that these data do reflect the nutrient status of a healthy cranberry plant and that they may be safely used for


interpretive purposes. They will provide the basis for tissue analysis comparisons in the Soil and Plant

Analysis Laboratory, University of Wisconsin-Madison.

Office  
295-2222

D. Beaton  
888-1288

# BEATON'S CRANBERRY GROWERS SERVICE



WAREHAM, MASS.

K. Beaton  
295-2207

P. Beaton  
947-3601

Specializing in

- DITCHING
- SANDING
- COMPLETE BOG MANAGEMENT

- NETTING
- WEED CLIPPING
- HARVESTING (Wet and Dry)

Also

Complete line of portable Crisafulli Pumps 2" - 16"  
Plastic netting for suction boxes

Table 1. Foliar nutrient concentration data from 3 experimental sampling programs and proposed low, median, and high levels for cranberry shoots.

Element	Level at Observed Deficiency	Range in 80 Field Samples	Range in New Leaf Tissue-3 yrs	Proposed Levels		
				Low	Median	High
Phosphorus %	.09	.10-.42	.14-.25	< .13	.14-.18	>.19
Potassium %	.17	.66-1.25	.50-.86	< .50	.50-.90	>.91
Calcium %	< .05	.28-.62	.50-.71	< .30	.31-.60	>.60
Magnesium %	.02	.10-.19	.15-.21	< .15	.16-.20	>.20
Iron ppm	26	36-345	72-207	< 40	40-80	>80
Boron ppm	< 1.0	8-34	25-31	< 10	10-20	>20
Copper ppm	3.1	1.3-12.2	5-10	< 5	6-10	>10
Zinc ppm	3.8	15-72	18-44	< 15	15-30	>30
Manganese ppm	< 2.0	22-370	113-135	< 10	10-200	>200
Nitrogen %	.70 <sup>1</sup>	--	--	< .90	.90-1.00 <sup>2</sup>	>1.00 <sup>2</sup>

<sup>1</sup> Data from T. Greidanus work.

<sup>2</sup> Estimated from field samples in this and other laboratories.



## CROP FORECASTING . . .

(continued from page 3)

to the USDA crop reporting service.

New Jersey expects a crop of 245,000 barrels, unchanged from 1980 but 3 percent below the crop of 1979. Weather conditions have been generally favorable but additional moisture is needed for continued development.

Oregon expects a crop of 100,000 barrels, 20 percent more than last year and 6 percent above 1979. Growing conditions have been good with frost damage, disease and insect problems at a minimum. A few bogs are suffering from inadequate irrigation.

The Washington crop is forecast at 132,000 barrels, up 27 percent from 1980 but down 10 percent from the 1979 crop. Cool, wet weather during much of the early and mid-bloom period

reduced pollination but warm weather late in the period greatly

helped the crop. Fruit set and size is near normal.



## Niemi Electric Co.

ROBERT NIEMI

ELECTRICAL CONTRACTORS

HEAT, LIGHT and POWER WIRING

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL



TEL. 295-1880

Robert Niemi Pinchurst Dr.

Wareham, Mass.



**Bog construction**

**Vine setting**

**Flumes and flume work**

**Bog sand**

## Nemasket Construction Co., Inc.

**275 Wareham St., Middleboro MA 02346**

**(617) 947-1723**

# DIRECTORY for Cranberry Growers

## The CHARLES W. HARRIS Company

451 Old Somerset Avenue  
North Dighton, Mass.  
Phone 824-5607

**AMES**

*Irrigation Systems*

**RAIN BIRD**

*Sprinklers*

**HALE**

*Pumps*

Highest Quality Products

with Satisfaction Guaranteed

regional  
news  
notes

## Massachusetts

By IRVING DEMORANVILLE

The crowd of 450 at the 94th annual meeting of the Cape Cod Cranberry Growers Assn. was the largest in anyone's memory. The day was designated as Dr. Chester E. Cross Day. Dr. Cross is director of the Cranberry Station.

## Washington

By AZMI Y. SHAWA

The author attended the annual



## Crane for Hire

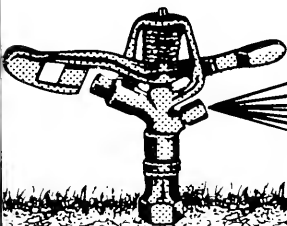
Three quarter yard crane with matts, clam and dragline. Have had years of experience in digging ponds, stumping and general bog work.

GEORGE R. NAVA CO.

11 Maple Avenue

Kingston, Mass. 02364

Call 585-4514



# RASPI INC.

AUTHORIZED AGWAY REPRESENTATIVE

LICENSED SPRAYING OF PESTICIDES (Seasonal)

WITH A COMPLETE LINE OF:

CRANBERRY INSECTICIDES • FUNGICIDES  
HERBICIDES • MITICIDES • and FERTILIZERS  
IN STOCK!

ROBERT A. ALBERGHINI — SPRAYING  
RFD 5 PLYMOUTH STREET, CARVER, MASS. 02330  
TELEPHONE: 866-4429

For further information, call evenings after 5:30

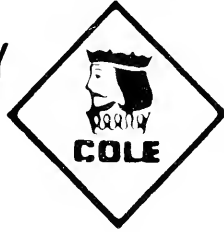
AGWAY

AGWAY

meeting of the American Society for Horticultural Science Aug. 9-14 in Atlanta, Ga. A poster presentation

entitled "Response of 'McFarlin' Cranberries to Minor Elements" was given.

## WISCONSIN CRANBERRY HEADQUARTERS FOR



## SEVIN XLR

DEVIRINOL 10G \* EVITAL \* GUTHION  
DIAZINON 14G \* PARATHION \* ETHREL

## Cole Chemical Supply

DIVISION OF *Hopkins* AGRICULTURAL CHEMICAL CO  
P.O. BOX 7211, MADISON, WISCONSIN 53707  
608 221-1581

# 37 Acre Cranberry Bogs For Lease or Sale

- Increase Your Cranberry Acreage and Profits by Rebuilding Old Bogs While Market Is Strong and Growing.
- Excellent Site Location With Easy Access to 4 Major Highways & Ocean Spray Plant.
- New Engineering Plans Include 4 Separate 5+ Acre Bogs, Reservoir, Sprinkler System, 1,060 ft. Alum Ovrhd Pipe With 20 Rain Birds on Hand. City Water, Electric, Paved Roads.
- Excellent Uplands Water Supply & Drainage to Taunton River.
- Conservation & Wetlands Approved.

OWNER WANTS A QUICK OFFER — TERMS AVAILABLE

Write P.O. Box 1082

Taunton, Mass. 02780

## weather watch

### MASSACHUSETTS

The month of August was cool and dry. The temperature averaged 2.1 degrees a day below normal, the coolest since 1964 and ninth coolest in records. Maximum temperature was 74 degrees on the 3rd and minimum 44 degrees on the 26th. Cooler than average days were the 17th, 20th, 21st, 25th and 26th; there were no warmer than average days.

Precipitation totaled 2.73 inches which is slightly more than 1½ inches below normal. There was measurable rainfall on only four days, with the greatest storm on the 16th, with 1.5 inches. There was only 0.14 inch of rain the last 15 days of August and so far none for the first week of September. Water supplies are running low again this year. We are 3-1/3 inches below normal for 1981 to date but are 5-2/3 inches ahead of 1980 the same period.

I.E.D.

### NOVA SCOTIA

Once again we are receiving mail and it is nice to have contacts with friends in other areas.

We have had a reasonably good growing season and most crops are slightly advanced for this time of year. Aug. 16 and 18 were cool nights but not low enough for frost.

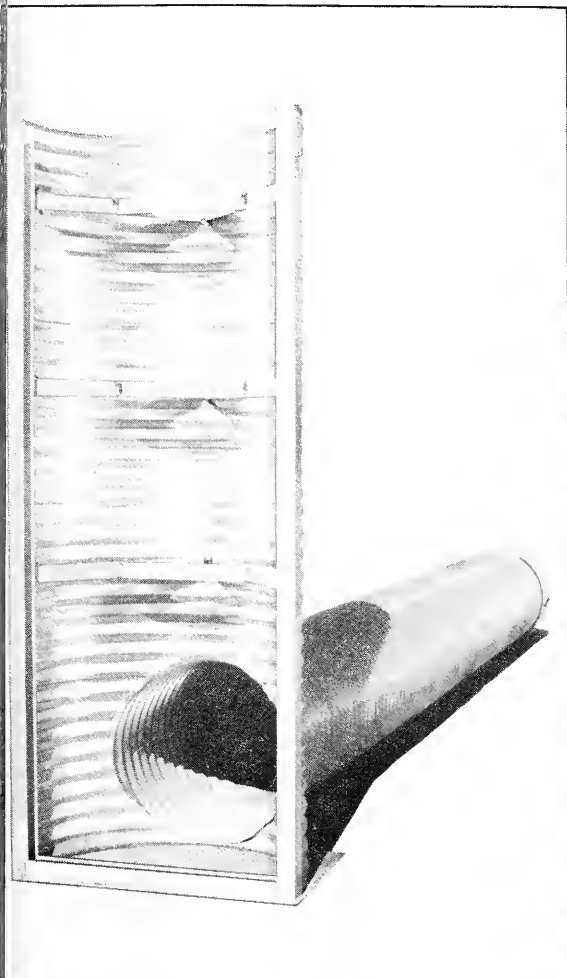
I.V.H.

### WASHINGTON

Precipitation for August totaled 1.52 inch with the greatest amount, .13 inch, on the 25th. There was measurable precipitation on only six days.

Temperatures for August ranged from 99 degrees on the 10th for the maximum to 43 degrees on the 31st for the minimum. There were seven days that registered 70 degrees or above in the Long Beach area. The heat wave that touched the coastal area west of the Cascades during the week of Aug. 6 through 15 brought highs of 107 degrees to Aberdeen and the Grayland and North Beach cranberry growing areas registered 102 degrees.

A.Y.S.

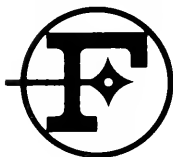


# Install the flow gates now that generations will rely on.

Felker flow gates are built to last, thanks to famous Felker welded construction, generously braced designs, and highest quality materials. Manufactured in aluminum only.

Standard sized for conduits from 15- to 48-inch diameters with riser widths from 24- to 72-inches, height as required. Single, double and triple log channel designs, other sizes available upon application. For virtually any size or water control application, Felker Brothers are flow gate specialists. **Send for free bulletin.**

**OUR  
STRENGTH  
IS METAL**



**FELKER BROTHERS CORPORATION**

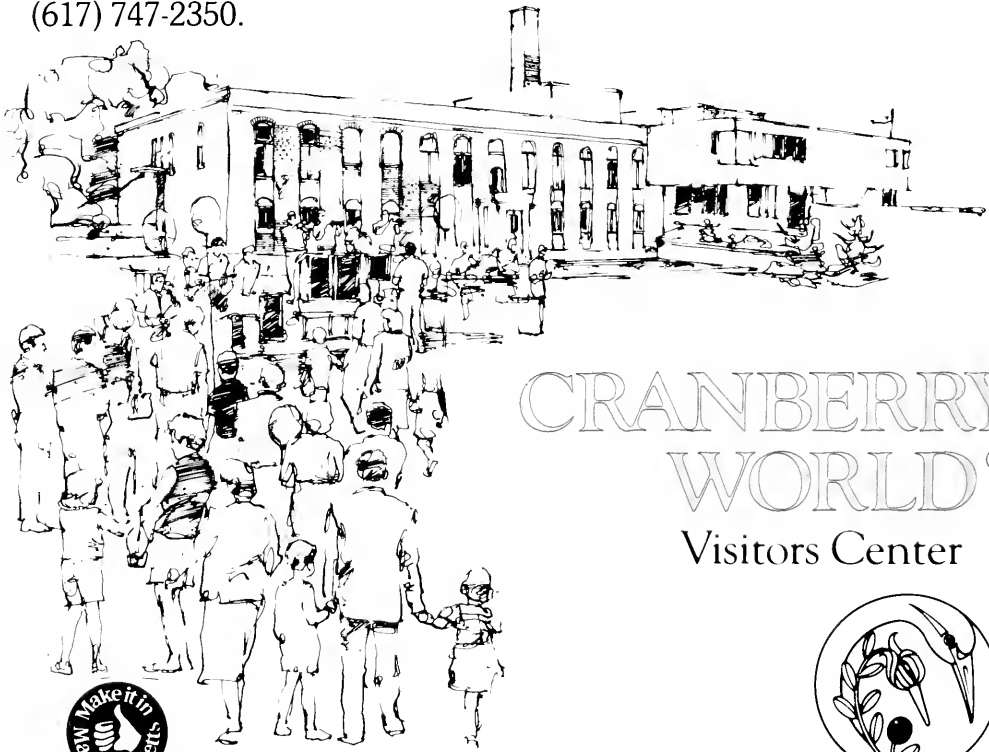
Marshfield, Wisconsin 54449

PHONE 715-384-3121 TWX 510-370-1846 TELEX 29-3451

# WHAT'S IN A BOG?

Cranberries. A delightfully delicious fruit well worth learning about at Ocean Spray's fascinating Cranberry World® in Plymouth. Walk around working cranberry bogs. Look at cranberry art and antiques. Listen to our boardwalk concerts. And view our changing monthly art exhibits. Free refreshments, too. And, best of all, free admission for everyone. Come find out what's in a bog. It'll boggle your mind.

Open daily April 1 through November 30th, 9:30 a.m. to 5 p.m. Free Admission. Near Plymouth Rock. Group reservations required. For information write Cranberry World, Ocean Spray Cranberries, Inc., Plymouth, Mass. 02360 or call (617) 747-1000 or (617) 747-2350.



CRANBERRY  
WORLD®  
Visitors Center





# CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

Volume 45, No. 11

November 1981



**Change in guard . . . 3**

★★★★★

**Wipers galore . . . 8**

Library UMass  
Serials Section  
Amherst MA 01002

# Evital<sup>®</sup> controls nutgrass and cutgrass. And 14 more troublesome weeds in cranberries.

Evital doesn't fall short in effective weed control. It stops **16** profit-robbing weeds, including tough ones like smoke grass, spike rush, and barnyard grass.

- **evital** is the pre-emergence herbicide that now can be applied in the fall or spring.
- **evital** stops tough weeds in cranberries better than any other granular herbicide.
- **evital** is a sand-core granule making it an outstanding aerial formulation; easy ground application as well.
- **evital** is the No. 1 choice to apply over newly-sanded bogs to prevent weed emergence.

It's the broad spectrum weed-control herbicide that cranberry growers depend on year after year.

(Use herbicides effectively. Read and follow label directions carefully.)

  
**evital<sup>®</sup>**

**A GRANULAR HERBICIDE FOR CRANBERRIES**



Sandoz, Inc. Crop Protection/480 Camino Del Rio South/San Diego, CA 92108

Copyright, 1981, Sandoz, Inc.

## **Marketing Committee**

# **Makes major changes**

By **CAROLYN CALDWELL**

The Cranberry Marketing Committee office has been moved from Middleboro, Mass., to Water-vliet, Mich., and the Marketing Order now will be administered by the same individual who administers the order for sour cherries.

The action has been taken as the result of decisions made at an August meeting of the committee in Wisconsin Rapids, Wisc.

Charles F. Hastings Jr., committee manager for 13 years, is not part of the new plans. He told CRANBERRIES that he was moved out because of his knowledge about a pending investigation of violations of

market reporting provisions.

Russell Lawton, a Massachusetts grower and chairman of the committee, denied the assertion. He said the investigation, being conducted by the USDA's inspector general's office, is a minor one involving one grower and that the committee had itself voted to refer the matter to the USDA.

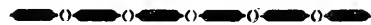
Lawton added that field work and communications were inadequate under the old system.

He said the new system has been adopted in large part for economic reasons. Six to eight thousand dollars a year will be saved in salaries alone, he said.

(Please turn the page)

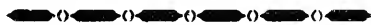


**RUSSELL Lawton, Cranberry Marketing Committee chairman. (CRANBERRIES photo by Carolyn Caldwell)**



### **COVER PHOTO**

**PRETTY** Pam Manes was crowned queen of this year's Bandon, Ore., Cranberry Festival. 1981 marked the festival's 35th year. (Western World photo by Mary Schamehorn)



## **Looking to buy**

Working cranberry bog

10 to 25 acres

Massachusetts area

Contact PO Box 177

Bryantville MA 02327



**DEL RASMUSSEN, new general manager hired by the Cranberry Marketing Committee.**

(CRANBERRIES photo by Carolyn Caldwell)



Economies also can be affected by having both orders operate out of a single office. There is a need to computerize cranberry marketing records, he said, and the Cherry Administrative Board already has one in its Watervliet office.

The direction of the Cranberry Marketing Committee also will change, Lawton said. Instead of being a regulatory agency at the ready to impose allotments, the committee will address the problem of orderly growth in the industry.

He owned that the new direction might satisfy those in the Reagan Administration who are skeptical about the value of marketing orders.

Growers, he said, require long range projections so that they can plan properly.

Lawton ascribed the change in direction, in part, to the influence of a younger group

of growers.

"I would say the average age of committee members is under 40," he said.

The new general manager for the Cranberry Marketing Order will be Del Rasmussen, general manager for the Cherry Administrative Board for six years.

Growers will be able to call the marketing office via a toll free number: 1-800-253-0862.

**UNDER THE NEW** system there will eventually be one field person each, full or part time as needed, in Massachusetts, Wisconsin, New Jersey and on the West Coast to serve both Washington and Oregon.

"We want to change our direction from imposing an allotment in years of surplus cranberries to being an indicator of potential production down the road four or five years as well as an indicator of the potential in sales," Lawton said.

"This is a total turnaround from what they have done in the past," Rasmussen said. He added that the order will keep up to date with all new acreage put in "so we can

predict the supply/demand curve."

"The most important changes will be mapping and projections for the coming years," Lawton explained. Also, he said, the Marketing Committee plans on increased grower contact, "giving growers a better understanding

The committee wants to encourage "positive commitments from the handlers involved" to supply growers with future sales needs, the chairman noted. "If the handlers know they can sell more, the growers know they can produce more. We want to work in unison with both to achieve control, to provide an adequate supply and an adequate return from the marketplace

Although both industries will use the same computer, "there will be no intermingling of funds, boards, record whatsoever," Lawton said. "Every thing will be maintained in strict confidence. We will have a manager for two orders paid by two orders."

Lawton claims that joining with the Cherry Administrative Board will "affect efficiencies and maintain computer service with very little additional cost." Computerizing cranberry marketing records separately

(continued on page 6)

**Put  
experience  
to work**

*Sylvester A.*  
**RAY**  
INC.

**GENERAL CONTACTORS**

Yes...37 years of road construction and site development experience. Established in 1941, Sylvester A. Ray Inc. Now one of the area's oldest and leading general contractors. Our convenient plant in Plymouth is ready to furnish your immediate needs.

- BOG CONSTRUCTION
- FLUMES
- BOG SAND
- WASHED STONE
- BANK GRAVEL
- FILL

**834-6636**

# editorial



## I love Ma Bell

If you're a grower, you probably have high telephone bills—which is the excuse for translating a personal experience into an editorial.

Being in publishing, where the bills are excruciating, I looked for a way to cut costs. Lo and behold, I hear a television commercial one morning that promises to reduce my bills remarkably. I call the number flashed on the screen. I'm told that for a monthly flat fee—which represents only 20 to 40 percent of the size of the bills I get from Ma Bell—I can make unlimited long distance calls. No new equipment is required. I simply use my present telephone, dial an 800 number to reach my new service, give an operator a seven digit authorization number and the number I wish to reach. A little slow but what the heck.

I pay a healthy enrollment fee and the first month's flat rate. It takes about six weeks for the company to plug me into the computer. When I got my notice that I was on line, I had that wonderfully delicious feeling one gets when presented a free lunch. I was ready to call Toledo, Wichita Falls, Sedro Woolley (that's in Washington), and, yes, Zanzibar. What happened?

Well, in one month, I managed to get three calls through. Most of the time the line was busy. Once in awhile, a recorded voice would come on the line to tell you your call will go through shortly. And then nothing would happen. Once I got through and barely heard my party but could hear another conversation as loudly as if the two callers were in my office. Oh yes, another time an operator told me she'd put me through and all I got was an eardrum shattering whistle.

Well, maybe some of those bargain rate telephone services do provide a service. But let my experience be a caveat to examine one carefully before subscribing. As for me, the experience made me love Ma Bell. Well, not exactly love. Actually, it's more a love-hate relationship. I hate her when I get the monthly bill. But I do love to get through when I pick up the receiver.

My experience with my bargain rate telephone service was a little like trying to make a phone call in Moscow—which I've also experienced. But that could be the subject of another editorial.



## CRANBERRY GROWERS REALTY

Listings of buyers and sellers welcomed on cranberry acreage and upland.

Appraisals

**DOUGLAS R. BEATON**

**E. Sandwich, Mass.  
02537**

**(617) 888-1288**

## CRANBERRIES

*THE NATIONAL CRANBERRY  
MAGAZINE*

*VOLUME 45—NO. 11*

*November 1981*

Send correspondence to:

**P.O. Box 249**

**Cobalt CT 06414**

**Phone: (203) 342-4730**

**Bob Taylor, Publisher/Editor**

### ADVISORS, CORRESPONDENTS

**MASSACHUSETTS**—Dr. Chester F. Cross, Director, Massachusetts Cranberry Experiment Station; Irving Demoranville, Extension Cranberry Specialist, Mass. Cranberry Station; Carolyn Caldwell, Rochester.

**NEW JERSEY**—Philip E. Marucci, Cranberry and Blueberry Specialist, Cranberry and Blueberry Laboratory, Chatsworth; Elizabeth M. Carpenter, Chatsworth.

**NOVA SCOTIA**—I.V. Hall, Botanist, Research Station, Kentville.

**OREGON**—Arthur Poole, Coos County Extension Agent, Coquille.

**WASHINGTON**—Azmi Y. Shawa, Horticulturist and Extension Agent in Horticulture, Coastal Wash. Res. and Ext. Unit, Long Beach.

**WISCONSIN**—Tod D. Planer, Farm Management Agent, Wood County; Joan E. Humphrey, Friendship.

CRANBERRIES is published monthly by the Taylor Publishing Co., Wellwyn Drive, Portland CT 06480. Second class postage is paid at the Portland, Conn., Post Office. Price is \$8 a year, \$15 for two years, 80 cents a copy in the U.S.; \$9 a year in Canada; \$10 a year in all other countries. Copyright 1981 by Taylor Publishing.

ISSN: 0011-0787

## M'KTING COMMITTEE . . .

(continued from page 4)

would run thirty to forty thousand dollars, he added.

The Marketing Order budget this year is \$90,000, up about \$10,000 over last year's due to "one time costs like moving the office," according to Lawton. "We expect to maintain costs at the same level as in the past four to five years (about \$80,000)," he said.

"One of the things that has been lacking is communication with the growers," Lawton said. "This is the second most important thing we're going to tackle. We'll have the toll free number available because the office will be out of the growing area for the first time in its history."

A STAFF OF THREE, including Rasmussen, a computer operator and secretary-receptionist, will handle the two marketing orders at the Watervliet, Mich., headquarters.

"We're looking toward maintaining the same size staff to keep costs down," Rasmussen said.

Under his direction, the Cherry Administrative Board's staff was cut from nine employees to three and the budget reduced \$60,000 by "elimina-

ting a lot of unnecessary repetition, getting data into the computer that means something, simplifying the paperwork."

Rasmussen has an agricultural degree from Fresno State University. He started out running a family farm in California raising grapes, peaches, apricots and cotton. He spent 17½ years with the USDA during which he received a "rounded education" in the small fruit program.

He was a process product inspector for nine years and then was stationed in Washington, D.C., on procurement of produce for federal programs such as school lunches and nutrition for the elderly. He also worked with marketing orders as a USDA agricultural marketing specialist.

"One of our big reasons for going into this with the Cherry Board was Del's experience," Lawton said. "Growers spoke very highly of him. We've had the opportunity to see some of his work. We felt this is the kind of man we're looking for. He has experience with USDA and understands what they need. He has a proven record with the Cherry Administrative Board."

Another "plus" for combining

resources with the cherry industry is that the harvests do not overlap, Lawton said. Cherries are harvested in June or July. Reporting of the harvest is a busy time for the marketing order manager but will fall at opposite times of the year for the two industries—in late summer for cherries and in early winter for cranberries.

Sour cherries, grown mainly for processing into pie filling, are raised by some 5,000 growers, 75 percent in the Great Lakes states and the balance on the West Coast. Sour cherry growers produce an annual 300 to 350 million lb. crop. (By comparison, 915 cranberry growers in the four producing regions of the country raise a 2.7 million barrel crop.)

According to departing manager Hastings, the loss of his post will not leave him foundering. He has bogs, an excavating business and sells pumps.

Suffolk County in New York State's Long Island had a thriving commercial cranberry industry in the 1920's and 30's. The last bog ceased production in 1974.

A MOST COMPLETE INVENTORY OF  
IRRIGATION ACCESSORIES



# LARCHMONT

ENGINEERING & IRRIGATION, INC.

P.O. Box 66, 11 Larchmont Lane, Lexington, MA 02173 (617) 862-2550

IRRIGATION EQUIPMENT DESIGNED ESPECIALLY  
FOR THE CRANBERRY INDUSTRY

FOR EXAMPLE:

*Gorman-Rupp Self Priming Electric Sprinkler Pumps*  
*Proven Quick Couple Riser*  
*Ingersoll-Rand Water Harvest Pumps*  
*Aluminum Insert Coupling For 4" Poly Pipe*

Contact:

Larchmont Engineering  
Phil Tropeano, President  
(617) 862-2550 (Call Collect)



Contact:

Bill Stearns, Plymouth, Mass.  
(617) 746-6048  
(617) 746-2610



# OBITUARY

## DANIEL CRABBE

Daniel McEwen "Mac" Crabbe, 77, president of the Double Trouble Co., a 1,560 acre cranberry and blueberry farm in Berkeley Township, Ocean County, N.J., died recently.

Crabbe and his father were pioneer blueberry growers in North Carolina as well as Ocean County. They established one of the first blueberry fields in the southern state, where they were involved in plant breeding and in investigating culture methods. The Crabbe variety of blueberry still is a valued standard in plant breeding and is used especially for its strong disease resistant characteristics.

Crabbe was a past president of the American Cranberry Growers Assn., a position his father held before him, and a member of both the American Cranberry Exchange and the Growers Cranberry Co. In addition, he was also the organizer and president of the Ocean County Cranberry Club, an organization largely concerned with growers' problems and in communicating frost alerts.

A graduate of the Berkshire School, Sheffield, Mass., he attended the University of Massachusetts and the University of Hawaii. During World War II, he attained the rank of lieutenant commander in the Navy and served in the Pacific theater.

His lifelong home was in Toms River, where he was founder and treasurer of the Community Memorial Hospital Assn., a member of Christ Episcopal Church, past commodore of the Toms River Yacht Club. He also was a member of the Cruising Club of America, past president of the Dover Shade Tree Commission, former member of the Ocean County College Foundation and a member of the County Farmers Home Administration Commission.

Crabbe is survived by a son, Daniel C.M. Crabbe of Beachwood; a daughter, Mrs. Sarah Fagan of Toms River; one brother, Edward L. Crabbe of Toms River; a sister, Mrs. Emily C. Ballou of Wellesley, Mass., and five grandchildren.

Contributions in his memory may be made to the Community Memorial

Hospital of Toms River, N.J.

## WILLIAM J. DECAS

William J. Decas of 473 Main St., Wareham, Mass., who went from shoeshine boy to major cranberry producer after he emigrated from Greece at the age of 17, died recently at Tobey Hospital. He was 93.

Decas, husband of Esther (Papageorge) Decas, had been in failing health for two years. He was born in Pavlia, Greece, and came to the U.S. in 1905, where he lived with an uncle, the late Costas Karakelas, in New Bedford, Mass. For two years, he shined shoes. Then he worked for Sam Collins, who owned a wholesale and retail fruit and produce business in New Bedford and Wareham. Later he peddled fruit and vegetables from a horse drawn wagon in five towns in the Wareham area.

In 1909, his brother, Charles, came to the U.S. He was followed a few years after by another brother, Nicholas.

The three brothers purchased the Collins business in Wareham. Included in the block they bought were an ice cream parlor, a variety store and, later, a liquor store.

In the early 1930's, the brothers entered the cranberry bog business, purchasing what was known as the Mary's Pond Bog in Rochester and planting another bog on Clapp Road in the Pierceville section of Rochester.

Later years saw the purchase of bogs in Mattapoisett, Lakeville and Carver, and the formation of the Decas Cranberry Co., Inc., independent growers, packers and shippers of cranberries in the U.S. and overseas.

The company's bogs are said by a

(continued on page 12)



## Straight Talk about Thanksgiving



It's that time of year again. The end of another season. The harvest is in, the equipment is put away, the land lies silent for its long winter rest.

It's Thanksgiving time. A time for giving thanks for our many blessings, for the bounty of our farms and ranches, for the good life that we enjoy.

But it's so easy for Thanksgiving to go by as just another holiday. Just a day for a good meal and a good game. So easy to forget what the real meaning of the day is: thanks giving.

We've so much to be grateful for. Let's make it a real day of Thanks Giving this year.

**Production Credit Associations of Wisconsin**

# Water bills, weed wipers interest N. J. growers

By ELIZABETH CARPENTER

"As small as the membership of the American Cranberry Growers Assn. (ACGA) is, we have to be vocal and politically aware. We must stand up for what we want, for sure as the devil nobody in Trenton (New Jersey's capital) is looking out for us."

With those words, William Haines Jr. sparked an intense discussion concerning water legislation at the recent annual summer meeting of the ACGA at the New Hedger House in Chatsworth, N.J.

He asserted that ACGA input to the state's Senate

Energy and Environment Committee last May had been courteously received but "did not signal a victory for cranberry growers by any stretch of the imagination."

"Although some concessions were made, we're more regulated than we were last year," he added.

Three pieces of water legislation have been enacted into law this year. Another has yet to be acted upon.

An 11th hour effort, spearheaded by growers Mary Ann Thompson, William Haines Sr. and Garfield DeMarco and Peter Furey of the N.J. Farm Bureau to blunt the negative effects of the already approved bills, has resulted in Senate bill 3346. It has passed the Assembly and Senate and awaits the governor's signature.

The bill would exempt farmers from water diversion fees, have county agents instead of the state Department of Environmental Protection grant certification for farm water use plans and prohibit the transfer of ground or surface water more than 10 miles beyond the boundary of the Pinelands National Reserve.

DeMarco, who worked on the

bill with State Senator Steven Perskie, called the senator "a reasonable person who supports agriculture."

ACGA members voted to have the water supply committee ask the DEP for a written explanation of how the new water legislation will affect the cranberry industry. Edward V. Lipman, DeMarco, Haines, Thompson and Stephen Lee III were named to a committee to query gubernatorial candidates on water usage, Pine Barrens regulations and farm labor.

ON A LIGHTER NOTE, Mary Ann Thompson of the Birches cranberry farm in Tabernacle gave a slide lecture on the history and architecture of the cranberry industry in New Jersey.

One tidbit she found in her research was the claim that "cranberries are the best cure for a broken heart."

Noting that history often repeats itself, Thompson said she found an 1899 article in the rare book room at Rutgers University that detailed an elaborate scheme to remove water from the Pine Barrens. Had all gone as planned, she said, water would have been diverted from the Batsos Canal by a canal to thirsty northern neighbors.

Mike Flint, marketing analyst, N.J. Crop Reporting Service, said that with more rain New Jersey might have a record crop. He said crop estimates may be low because only 21 growers' reports had been received to date

(continued on page 10)

## DIRECTORY for Cranberry Growers

**The  
CHARLES W. HARRIS  
Company**

451 Old Somerset Avenue  
North Dighton, Mass.  
Phone 824-5607

**AMES**  
Irrigation Systems

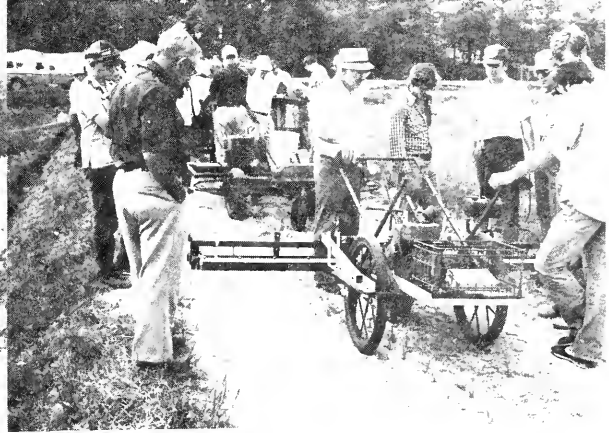
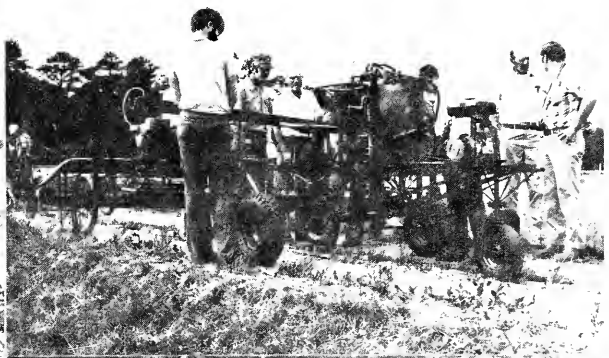
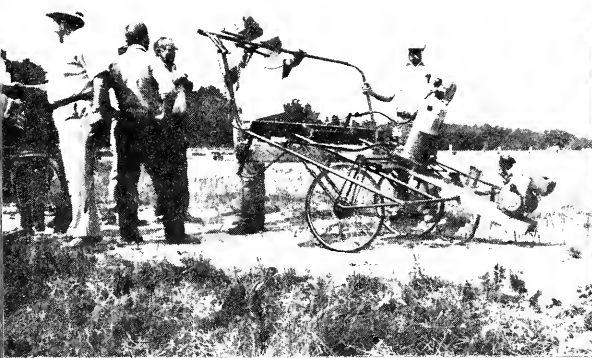
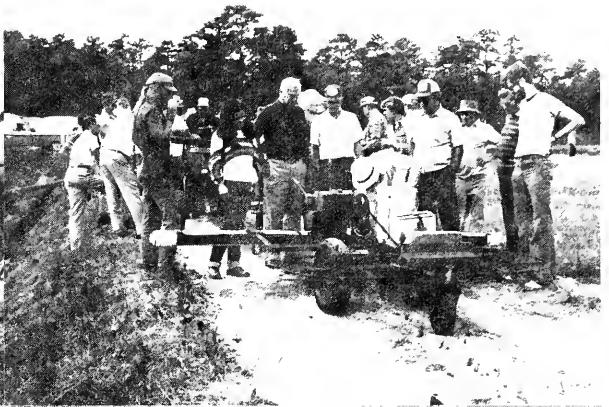
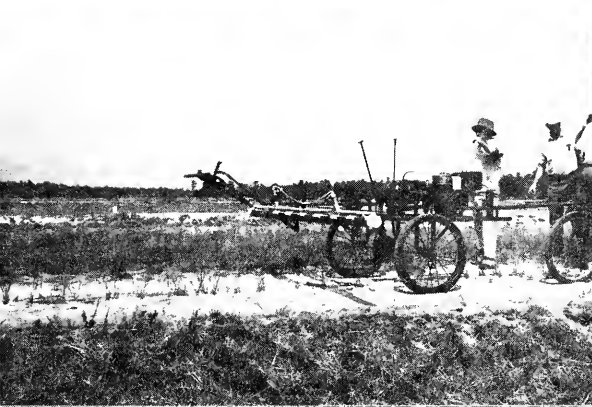
**RAIN BIRD**  
Sprinklers

**HALE**  
Pumps

Highest Quality Products  
with Satisfaction Guaranteed

**WIPERS, WIPERS EVERYWHERE**—Proud grower/inventors trotted out their weed wipers at the recent summer meeting of the American Cranberry Growers Assn. meeting in Chatsworth, N.J. The names identified with the wipers on the next page are, left row, top to bottom, then right row, top to bottom: Abbott Lee, Fred Mahn, Paul Burk, Tom Darlington, Haines and Haines Co., Harry Moulter, Fred Mehler and Everett Abrams and Norman LeMunyon.

(CRANBERRIES photos by Elizabeth Carpenter)





## WATER BILLS . . .

(continued from page 8)

compared to 30 last year. According to grower estimates, there is a greater variation in bloom and size this year than in the previous three years and set is similar to that of the '79 crop.

Elizabeth Carpenter of the Division of Rural Resources, N.J. Dept. of Agriculture, said that while annual leasing of state owned land for agricultural use is not new, long term leasing is.

For long term leasing to become a smoothly functioning reality, she added, a memorandum of understanding between the state DEP and DOA must be signed, lands to be leased must be delineated and a DEP liaison must be assigned to the DOA to expedite leasing arrangements.

Raymond J. Saulnis, Burlington County agricultural agent, Cooperative Extension Service, brought the welcome news that growers armed with a permit may now open burn hedgerows, plant material from plant clearing and other vegetative matter.

Dr. Allan W. Stretch, a USDA plant pathologist based at the Blueberry/Cranberry Research Center in Chatsworth, introduced Dr. Donald Boone of the University of Wisconsin's department of plant pathology, who has been visiting the center to observe cranberry rot studies and fungicide trials. Stretch said the objective of his own experiments is to determine if fungicide used on newly planted bogs will shorten the time interval from planting to the first commercial harvest of rot-free berries.

Dr. William Welker, USDA weed specialist, said his prior assessment of New Jersey growers as "weed growers" has changed.

"I'm delighted to see the inventiveness in weed wiper development and grower enthusiasm and cooperation are high," he said.

He added that additional research may result in Roundup being feasible for spray application.

Eight weed wipers as well as Dr. Welker's hockey stick rig were exhibited at the center.

Test plots of pre-emergence herbicides were in evidence at bogs 4 and 5. There was a low population of weeds at 4 resulting from a Vapam treatment in 1980. Here Casoron, Evtal and Devrinol were all effective but Casoron seemed to be slightly

superior. On bog 5 only Devrinol and Casoron were used to combat a much denser abundance of weeds, with Devrinol more effective. Neither herbicide was phytotoxic to cranberries.

**AVERAGE ANNUAL** production figures for 17 cranberry varieties grown at the research center's experimental bogs over a 10 year period show eight varieties producing 150 barrels per acre or more. They are: Cropper, 214 average barrels per acre a year; Wilcox, 187; Stevens, 178; LeMunyon, 172; Wolman, 159; Beckwith, 155; Champion, 154; Early Richard, 150.

Data for mixed varieties over the same 10 year period showed five produced an annual average of more

than 200 barrels per acre: Ben Lear plus Wilcox, 252; Wilcox plus Early Black, 238; Early Black plus Early Richard, 221; Ben Lear plus Early Richard, 211; Wilcox plus Early Richard, 210.

A mixture of Early Black and Jersey vines in the center's bog 2 demonstrated that cross pollination enhances both berry size and number of barrels per acre. On Aug. 24, the weight per berry of Early Blacks alone was 0.91 grams while the weight per berry of Jersey alone was 1.65 grams. A 1 square foot sample of a mixture of the two showed an average weight per berry of 1.05 grams.

The winter meeting of ACGA will be held on Feb. 11.

## Niemi Electric Co.

ROBERT NIEMI

ELECTRICAL CONTRACTORS

HEAT, LIGHT and POWER WIRING

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL



TEL. 295-1880

Robert Niemi

Pinchurst Dr.

Warcham, Mass.



## Crane for Hire

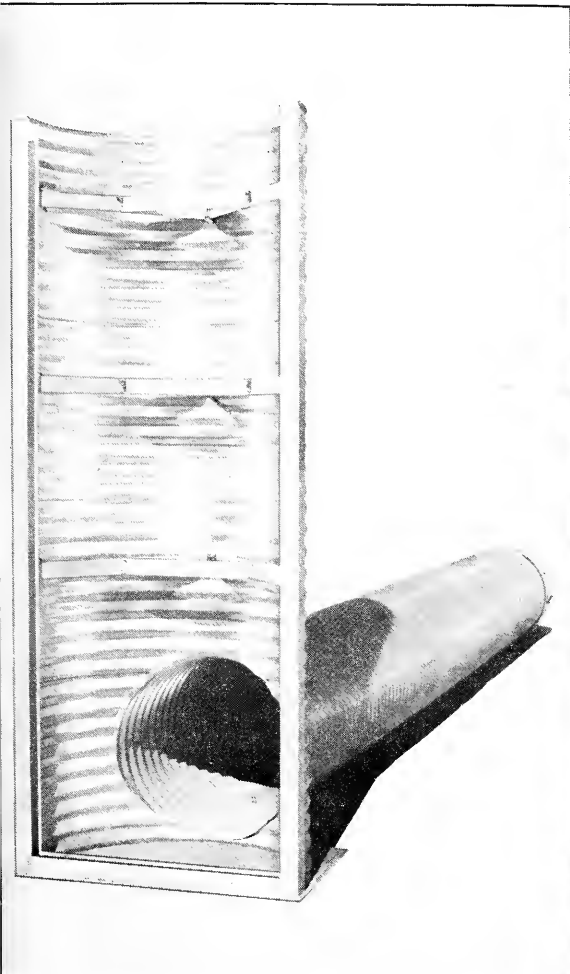
Three quarter yard crane with matts, clam and dragline. Have had years of experience in digging ponds, stumping and general bog work.

GEORGE R. NAVA CO.

11 Maple Avenue

Kingston, Mass. 02364

Call 585-4514

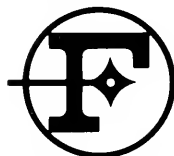


# Install the flow gates now that generations will rely on.

Felker flow gates are built to last, thanks to famous Felker welded construction, generously braced designs, and highest quality materials. Manufactured in aluminum only.

Standard sized for conduits from 15- to 48-inch diameters with riser widths from 24- to 72-inches, height as required. Single, double and triple log channel designs, other sizes available upon application. For virtually any size or water control application, Felker Brothers are flow gate specialists. **Send for free bulletin.**

**OUR  
STRENGTH  
IS METAL**



**FELKER BROTHERS CORPORATION**

Marshfield, Wisconsin 54449

PHONE 715-384-3121 TWX 510-370-1846 TELEX 29-3451



## OBITUARY . . .

(continued from page 7)

company spokesman to be the largest independent source of fresh cranberries in the world. The Decas Co. also owns considerable real estate in Wareham.

A U.S. Army veteran of World War I, Decas served overseas in Germany. He was a member of the American Legion Post in Wareham.

A communicant of St. George's Greek Orthodox Church in New Bedford, he was one of the church's founders. He was a member of the Odd Fellows in Wareham and the Cape Cod Cranberry Growers Assn.

In the early 1970's, he was responsible for the establishment of a public water system in his native Pavlia.

Survivors include his widow, a daughter, Georgia D. Chamberlain of Rochester; four brothers, Dr. Demetrios J. Decaneas of Weston, George J. Decas of Harwichport and Chris and Argirolis Decas of Pavlia; four grandchildren and two great-grandchildren.

Another brother, John W. Decas, was killed during the Battle of the Bulge in World War II.

Memorial contributions may be made to the John W. Decas School Library Fund, 27 S. Sixth St., New Bedford.

### CARROLL D. GRIFFITH

Carroll D. Griffith, 76, of Lakeview St., Carver, Mass., a retired, second generation cranberry grower and father of Clark Griffith, president of the Cape Cod Cranberry Growers Assn., died

recently at Jordan Hospital, Plymouth after a brief illness.

A lifelong Carver resident, he served 15 years on the board of directors of Ocean Spray Cranberries Inc. He also was on the board of the New England Cranberry Sales Co. and the Wareham National Bank. He also was a member of the Social Harmony Lodge AF & AM of Wareham, Agawam Chapter 12

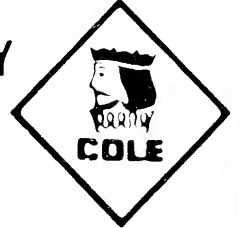
## WISCONSIN CRANBERRY HEADQUARTERS FOR

### SEVIN XLR

DEVIRINOL 10G \* EVITAL \* GUTHION  
DIAZINON 14G \* PARATHION \* ETHREL

## Cole Chemical Supply

DIVISION OF *Hopkins* AGRICULTURAL CHEMICAL CO  
P.O. BOX 7211, MADISON, WISCONSIN 53707  
608 221 1581



**Bog construction**

**Vine setting**

**Flumes and flume work**

**Bog sand**

# **Nemasket Construction Co., Inc.**

**275 Wareham St., Middleboro MA 02346**

**(617) 947-1723**

Order of the Eastern Star, the Little Harbor Golf Club and past master of the South Carver Grange.

Besides his son, survivors include his widow, Hattie (Jacobs) Griffith, and a sister, Marjorie Griffith of Carver.

# regional news notes

## Massachusetts

By IRVING DEMORANVILLE

General harvest began early, with many growers starting right after Labor Day. A few even jumped the gun and began a few days before. This is the earliest start in the past seven or eight years.

Color has been good from the beginning and getting better. Berry size was small at first but is now above average. Quality on fungicide treated bogs is excellent. However, untreated bogs are going to have problems.

Close to 50 percent of the crop is

picked but dry harvesters have had a struggle.

There were two frost warnings on the 29th and 30th with no problems as the wind held up. Also, some reports of the crop falling off, although some

bogs are loaded.

The Howes appear to have a very good potential yield and this will bring the total up some. It would appear at this time that we should hold close to last year.

# M. C. Howes

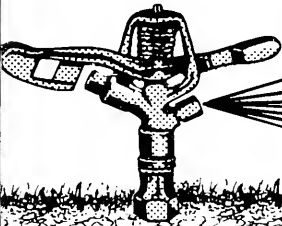


Specializing in  
Agricultural Construction

MERT HOWES  
295-5542

619 COUNTY ROAD  
W. WAREHAM, MASS.  
02576

- Flumes*
- Canals*
- Land Clearing*
- Sanding*
- Water holes*
- Ditching*
- Dikes*
- Grading*



# RASPBERRY

AUTHORIZED AGWAY REPRESENTATIVE

LICENSED SPRAYING OF PESTICIDES (Seasonal)

WITH A COMPLETE LINE OF:

CRANBERRY INSECTICIDES • FUNGICIDES  
HERBICIDES • MITICIDES • and FERTILIZERS  
IN STOCK!

ROBERT A. ALBERGHINI - SPRAYING  
RFD 5 PLYMOUTH STREET, CARVER, MASS. 02330

TELEPHONE: 866-4429

For further information, call evenings after 5:30

AGWAY

AGWAY

The National Association of State Departments of Agriculture on Sept. 18-23 held its annual meeting in Massachusetts for the first time in the 63 year history of the organization. The group, representing 47 states, was taken on a tour of the cranberry industry on the 22nd. Chester Cross, Robert Devlin, Charles Brodel, John Norton and the author served as tour guides on the buses. Dr. Cross also attended the business meeting and banquet. At least some of the group will remember the cranberry trip, as we managed to get two buses stuck in soft sand at a bog site.

Dr. Robert Devlin of the Massachusetts Cranberry Experiment Station attended the Plant Growth Regulator Group annual meeting in St. Petersburg, Fla., recently. Bob presented a research paper and chaired a section on growth regulator research.

Prof. John S. Norton attended a joint meeting of the North Atlantic Region of the American Society of Agricultural Engineers and the Canadian Society of Agricultural Engineers and the Agricultural Institute of Canadian Science Societies at Brock University, St. Catharines, Ontario. There were sessions on energy conservation, irrigation, harvesting and storage.

We were visited at the station recently by two well known cranberry research and extension workers. Dr. Donald Boone, pathologist from the University of Wisconsin, attended the growers meeting and spent the week of Aug. 17 looking at some of our bogs, taking pictures and talking with the staff. We also had a nice visit on Aug. 24 from Arthur Poole of Oregon. Art is the extension agent from Coos County, which involves him heavily with cranberry growers.

**By CAROLYN CALDWELL**

Six busloads of members of the National Association of State Department of Agriculture toured the Makespace, Decas and Cranebrook bogs.

At Makespace, the association members saw water picked berries being loaded by elevator-conveyor into trucks. The Cranebrook operation uses an industrial food pump for its water harvest. The pump is attached to a "detrasher" that cleans the crop of debris during loading.

**FALL TIME FOR CONTROL SAYS EXPERT ON WEEDS**

Now is the time for cranberry growers to begin weed control programs for the coming year,

according to Dr. Robert Devlin, weed specialist at the Massachusetts Cranberry Experiment Station.

NOT ONLY WILL a fall herbicide application save valuable time in the



Since 1933

Members of the SIPC

**Gage-Wiley & Co., Inc.**

STOCKS & BONDS

Village Landing, Plymouth, Mass. 02361  
Two blocks south of Cranberry World

617-746-3322 Call Toll Free in Mass 1-800-242-0263

**A Solid Investment**

requires solid financing . . . and that's our specialty. Credit for equipment, land, buildings . . . all your financial needs. For Credit . . . Plus a full range of other finance-related services, see your local Farm Credit representative.

P.O. Box 7 Taunton, Mass. 02780 Tel: (617) 824-7578  
Office: Located on Rt. 44, 1/4 Mile West of Rt. 24

busy spring months, but growers can see what and where their weed problems were this year and more accurately treat infested areas, he says. By applying herbicides only to these areas, growers also will keep chemical costs to a minimum.

"Adequate weed control can make the difference between a healthy, high-yielding bog and one that is no longer producing at all," states Devlin. "Nutsedge and cutgrass are found in 80 percent of Massachusetts bogs and can cause a significant reduction in yield."

For control of these two weeds and other, Devlin recommends a fall application of Devrinol or Evital, products, he says, that provide control without damaging cranberry vines.

## weather watch

### MASSACHUSETTS

September was cold, averaging 2.1 degrees a day below normal. This is the sixth below normal September in the past seven years. Maximum temperature was 80 degrees on the 4th and minimum 39 degrees on the 30th. The only warmer than average days were the 1st, 11th, 13th and 14th. Cooler than average days were

## Mike's Portable Welding

Cranberry Equipment  
Built and Repaired

*Clippers, Flumes  
and Wheel-offs,  
all types of equipment*

### FREE ESTIMATE

(617) 748-0014

(617) 748-1415

(617) 748-0031

the 16th, 18th, 19th, 23rd and 24th.

Rainfall was 2.60 inches, which is 1¼ inches below normal. There was measurable rain on 11 days, with 1.27 inches on the 15th-16th as the largest storm. We are about 4½ inches below normal for 1981, but are nearly 8 inches ahead of 1980.

I.E.D.

### NOVA SCOTIA

Here in Nova Scotia, the weather was sunny and warm for the last month through the middle of September. At Kentville there was no significant rainfall during this period.

Cranberries ripened somewhat early and harvesting should have been well underway by the end of September.

I.V.H.

Statement of Ownership, Management and Circulation, Required by 39 U.S.C. 3685. 1. Title of publication: Cranberries. 2. Date of filing: Oct. 8, 1981. Frequency of issue: monthly. 3 A. No. of issues published annually: 12. 3 B. Annual subscription price: \$8. 4. Location of known office of publication: Wellwyn Drive, Portland, Middlesex CT 06480. 5. Location of the headquarters or general business offices of the publishers: same. 6. Names and complete addresses of publisher, editor and managing editor: publisher, Robert Taylor, Wellwyn Drive, Portland CT 06480; editor, the same; managing editor, the same. 7. Owner: Robert Taylor, Wellwyn Drive, Portland CT 06480. 8. Known bondholders, mortgagees and other security holders owning

### RECIPE

## CREAMY CRANBERRY ORANGE DRESSING

(Makes 1½ cups)

1 package (3 ounces) cream cheese, softened  
½ cup dairy sour cream or yogurt  
2/3 cup cranberry-orange relish

In a bowl, mix together cream cheese and sour cream; beat until smooth. Stir in cranberry-orange relish. Chill. Serve on fruit salads (grapefruit sections, apples, oranges, grapes) or as a dip with fresh fruit.

or holding 1 percent or more of total amount of bonds, mortgages or other securities: none. 9. Not applicable. 10. The average number of copies of each issue during the preceding 12 months and the actual number of copies of single issue published nearest to filing date, respectively: total number of copies printed (net press run), 600 and 600; paid circulation through dealers and carriers, street vendors and counter sales, 0 and 0; mail subscriptions, 460 and 467; total paid circulation, 460 and 467; free distribution (including samples) by mail, carrier or other means, 0 and 0; total distribution, 460 and 467; office use, left over, unaccounted, spoiled after printing, 140 and 133; returns from news agents, 0 and 0; total, 600 and 600. I certify that the statements made by me above are correct and complete. (Signed) Robert Taylor, Publisher/Editor.

Office  
295-2222

K. Beaton  
295-2207

## BEATON'S CRANBERRY GROWERS SERVICE



WAREHAM, MASS.

D. Beaton  
888-1288

P. Beaton  
947-3601

Specializing in

- DITCHING
- NETTING
- SANDING
- WEED CLIPPING
- COMPLETE BOG MANAGEMENT
- HARVESTING (Wet and Dry)

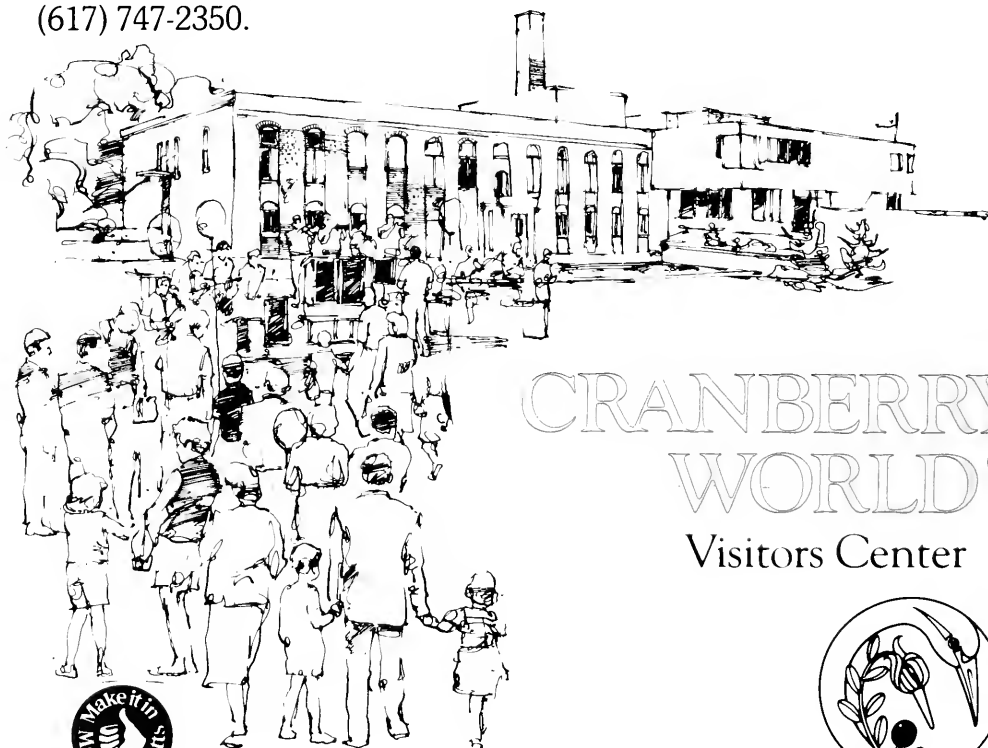
Also

Complete line of portable Crisafulli Pumps 2" - 16"  
Plastic netting for suction boxes

# WHAT'S IN A BOG?

Cranberries. A delightfully delicious fruit well worth learning about at Ocean Spray's fascinating Cranberry World® in Plymouth. Walk around working cranberry bogs. Look at cranberry art and antiques. Listen to our boardwalk concerts. And view our changing monthly art exhibits. Free refreshments, too. And, best of all, free admission for everyone. Come find out what's in a bog. It'll boggle your mind.

Open daily April 1 through November 30th, 9:30 a.m. to 5 p.m. Free Admission. Near Plymouth Rock. Group reservations required. For information write Cranberry World, Ocean Spray Cranberries, Inc., Plymouth, Mass. 02360 or call (617) 747-1000 or (617) 747-2350.



CRANBERRY  
WORLD®  
Visitors Center



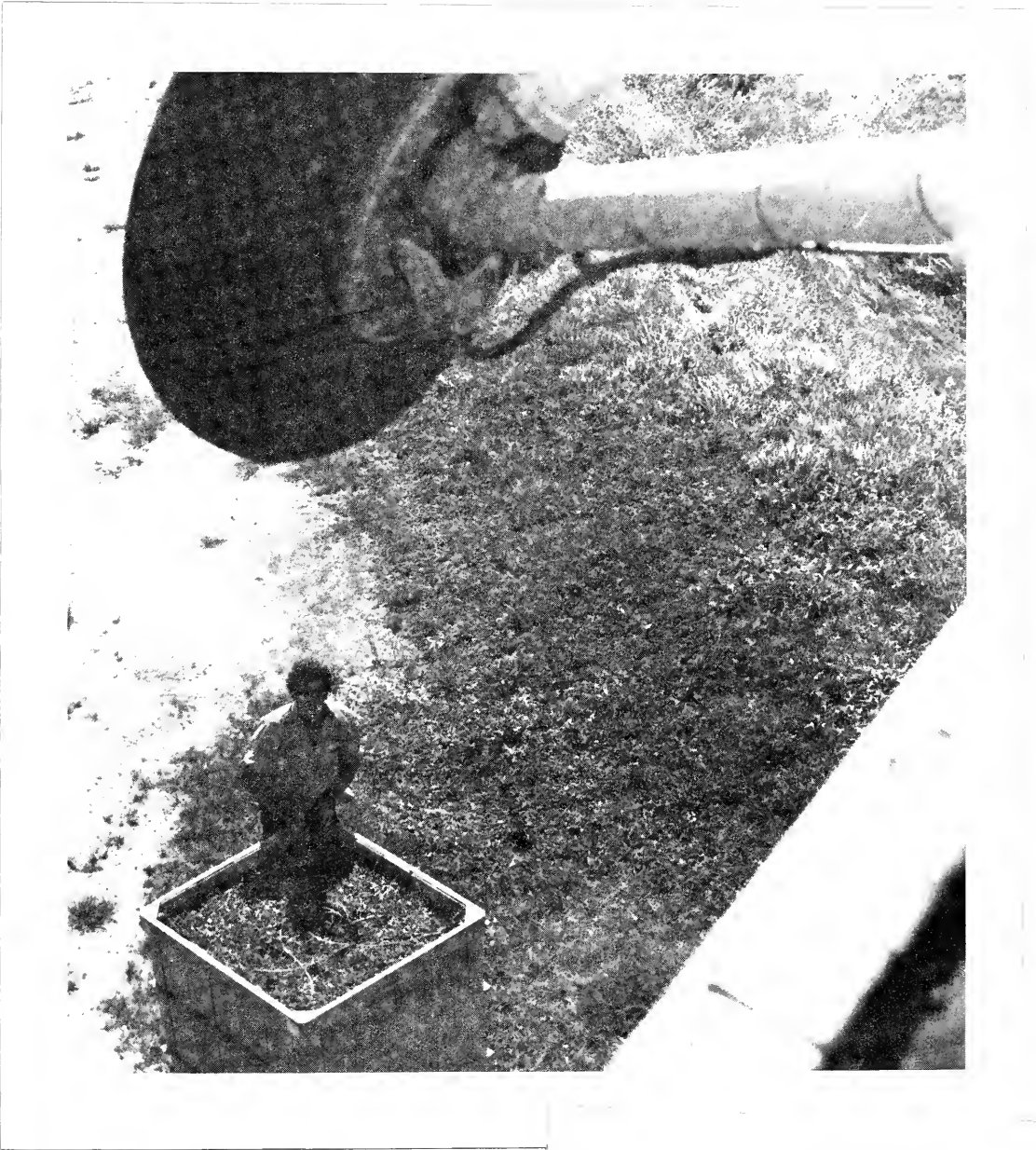


# CRANBERRIES

THE NATIONAL CRANBERRY MAGAZINE

Volume 45, No. 12

December 1981



**The Dodder weed . . . 3**

★★★★★

**A bear story. . . 6**

Library UMass  
Serials Section  
Amherst MA 01002

## Helicopter lift

# 'It's like playing a piano'

By CAROLYN CALDWELL  
C & W Ag Air Service, owned  
by Dan Clark and operated out  
of Cranland Airport, Hanson,  
Mass., has been lifting cranberries  
by helicopter for four years.

Decas Cranberry Co. is one  
business which hires Clark's  
helicopters and president John C.  
Decas says he wouldn't take the  
dry harvest off his bogs any other  
way.

"This and other factors have  
enabled us to double our crop in  
the past five years," Decas claimed.

One hour's work by 'copter  
does what a crew can do in a day,  
according to Decas. The helicopter  
service cuts down to a fraction  
the traffic on the bog, as well as  
saves on labor costs, he adds.

"We do about 50 lifts an

hour," Clark says. "Decas is the  
one who gave us our first chance.  
It was a combination of his (John  
C.'s) idea and mine."

In one exhilarating hour, the heli-  
copter comes sweeping across the  
bog, clearing an accumulation of  
bins and placing them neatly on  
the shore. One complete lift takes  
anywhere from 20 to 45 seconds,

and, flown by pilot John Clark,  
is a smooth operation—despite all

(continued on page 10)



### COVER PHOTO

CRANBERRIES correspondent  
Carolyn Caldwell turned to aerial  
photography to get this shot of  
cranberries being lifted by heli-  
copter. Her story starts on this  
page. Other photos are on pages  
10 and 11.



### CRANBERRY GROWERS REALTY

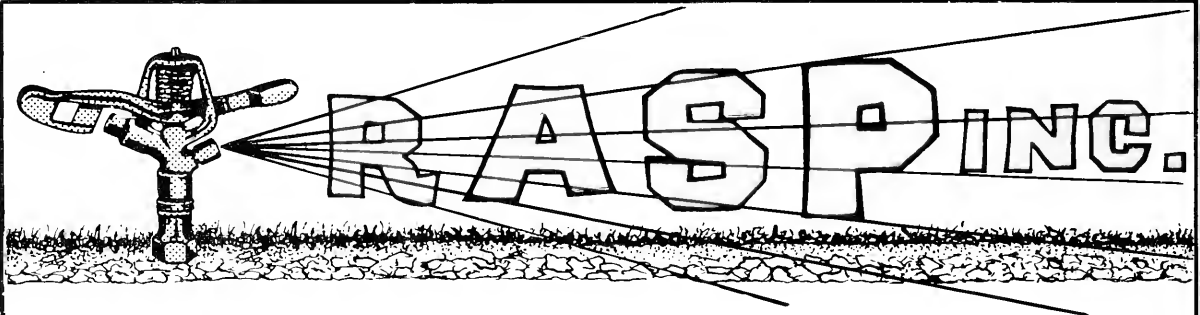
Listings of buyers and  
sellers welcomed on  
cranberry acreage and  
upland.

Appraisals

DOUGLAS R. BEATON

E. Sandwich, Mass.  
02537

(617) 888-1288



AUTHORIZED AGWAY REPRESENTATIVE

LICENSED SPRAYING OF PESTICIDES (Seasonal)

WITH A COMPLETE LINE OF:

CRANBERRY INSECTICIDES • FUNGICIDES  
HERBICIDES • MITICIDES • and FERTILIZERS  
IN STOCK!

•

ROBERT A. ALBERGHINI — SPRAYING  
RFD 5 PLYMOUTH STREET, CARVER, MASS. 02330

TELEPHONE: 866-4429

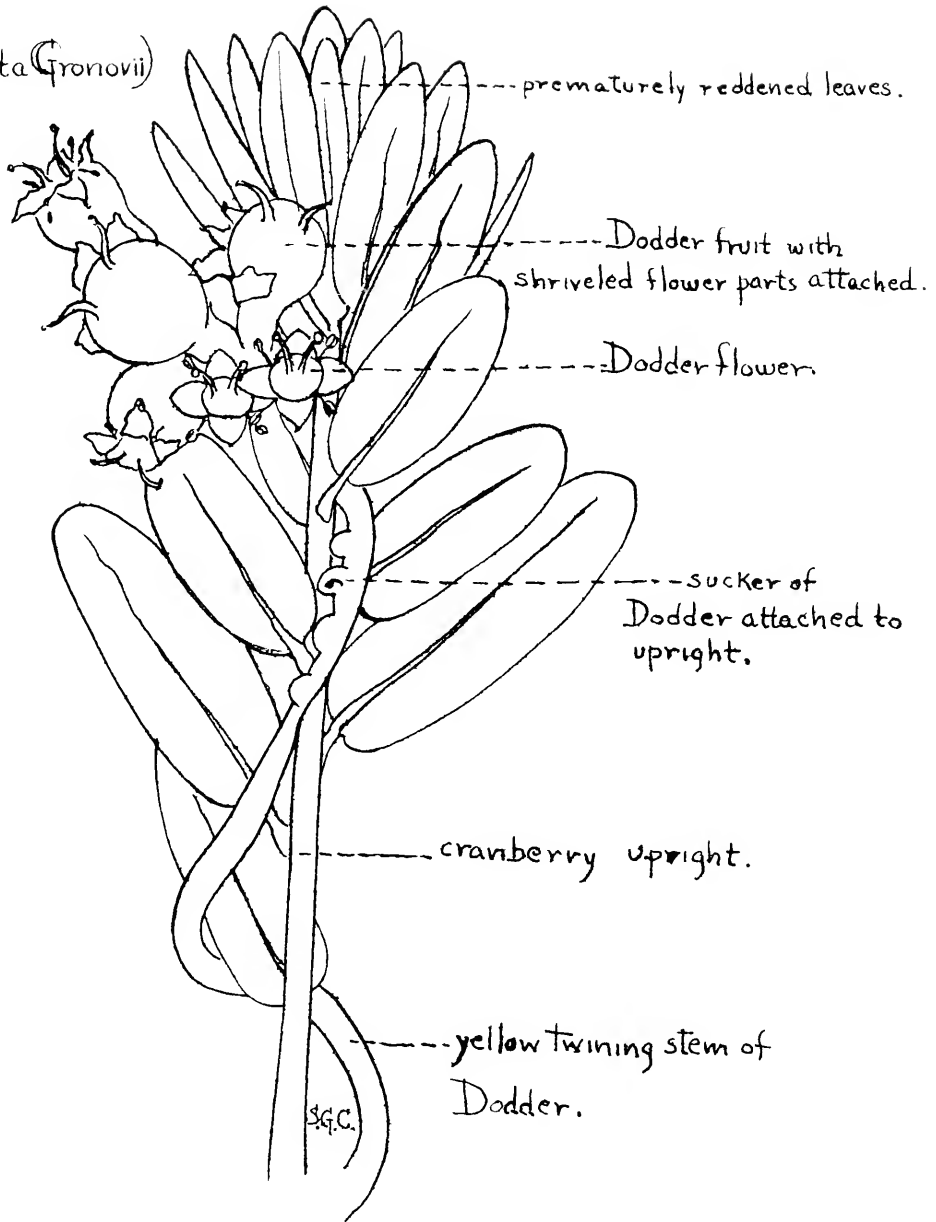
For further information, call evenings after 5:30

AGWAY

AGWAY

# Dodder

(*Cuscuta Gronovii*)



DR. SHIRLEY CROSS, wife of the author, did this drawing of the Dodder.

## Dodder weed: trouble ahead?

By DR. CHESTER E. CROSS  
Retired Director, Massachusetts  
Cranberry Experiment Station

Dodder is a parasitic weed

which is increasingly prevalent  
on Massachusetts cranberry bogs.

It has essentially no root and  
no green leaves and therefore  
cannot make food for itself but

is totally dependent for nourishment  
on its host plant.

By means of suckers, it  
penetrates the bark of the cranberry  
upright and absorbs the nutritive  
juices of the stem. Twining from  
upright to upright and putting in  
suckers, it spreads rapidly and soon  
forms a yellow "web" over the vines.  
Leafy tips

(continued on the next page)



# DODDER WEED . . .

(continued from preceding page)

of parasitized uprights redden and fail to set buds for the next year's growth.

Dodder is most difficult to eradicate after it has appeared in the new growth because each fragment containing a sucker which is left among the vines constitutes an independent plant, and as such will flower and fruit.

Dodder dies at the end of the growing season but new plants appear from its seeds the following spring. The 1981 weed chart recommends the use of Chloro-IPC or Casoron from late April to bud break as controls.

These controls must be applied before the young dodder plants can be observed. So threatening to the health of cranberry vines does this pest appear to be

# Crop report shows hike

The latest U.S. cranberry forecast by the USDA predicts a 1981 crop of 2.68 million bbls., a 2% increase from mid-August but 1 percent less than last year.

The forecast for the Massachusetts crop, dated Oct. 1, was 1,180,000 barrels, the same as the Aug. 1 forecast and 5,000 barrels less than the record 1980 crop. Harvest was started in

that growers should make every effort to eliminate even a few plants before their increase brings on a major problem. Bogs where dodder is observed this season should be treated next spring.

mid-September with normal progress, says the USDA's New England Crop and Livestock Reporting Service. Rain came in time to help with the water harvest. Berry color is very good and size is variable.

Prospects in Wisconsin improved 7 percent between the two forecasting periods to 1.04 million barrels. Winter damage was less than had been anticipated earlier.

Wisconsin's higher prospects were partially offset by lower prospects in New Jersey where quality and color were excellent but berry size was small because of a lack of rainfall.

Prospects in other states were unchanged. Damage from disease, frost and insects was minimal in Washington and Oregon. Excessive vine growth in Washington caused some concern about berry sizing and coloring.



# Nemasket Sand & Gravel Corp.

Dry Screened  
Bog Sand



Screening  
Your Bog Sand  
On Site

Washed Sand + Bank Sand

Off Montello St.

Carver, Mass.

Bus. 866 - 4539

Res. 947 - 1580



# editorial



## Hosannas for reps at festivals, fairs

A resounding round of applause is in order for the women and men of cranberry growing families who, through imaginative efforts and plenty of hard work, involve the public with our story.

What better public relations could we have than the well spoken and creative representatives of our industry at the many cranberry festivals and state fairs held at harvest time!

Americans of all backgrounds and ages are making cranberry posters, entering cranberry cooking contests, quilting cranberry themes, visiting and photographing our bogs, telling the cranberry story, and, finally, using more of our products.

Joyce Mazalewski of the National Cranberry Quilt Patch Committee told me: "We've had people write from all over the country, asking us to describe a cranberry flower." And the finished quilt doesn't just stay in cranberry country—it travels around the country."

And think of all the scrumptious dishes served up at cranberry festival and fair contests—cranberry-mincemeat pie, cranberry cheese canapes, glazed cranberry yogurt bread, cranberry flan, and on and on—dishes that demonstrate the tasty, variegated ways in which cranberries can please the palate.

Like guessing how many cranberries fill a 10 gallon jug, I'm wondering how many cranberry questions growers have answered for the public this harvest. Thank you all for reaching out!

And have a Merry Cranberry Christmas!

—by Carolyn Caldwell

## Ropes, Wilson promoted

John S. Ropes Jr., director of grower relations at Ocean Spray, has been promoted to director of citrus operations. He will be based at the cooperative's Vero Beach, Fla., facility.

John S. Wilson, pesticide develop-

ment coordinator with grower relations, has been named director of that department. He will maintain an office at Ocean Spray's corporate headquarters in Plymouth, Mass.

The announcement was made by Hal Thorkilsen, Ocean Spray president. The promotions are effective immediately.

Ropes joined Ocean Spray in 1974 as grower relations administrator. He was named director of the department in '76, following the retirement of Gilbert T. Beston, then vice president, grower relations.

A graduate of the University of

Massachusetts at Amherst, where he received a bachelor's degree in agriculture, Ropes previously worked for Agway and Ciba-Geigy Chemical.

Wilson came to Ocean Spray last year after working for Penwick Corp. in New Jersey. He holds a bachelor's degree in animal science from Rutgers University and a master's degree in entomology from North Carolina State.

## USDA OFFICES CLOSE

Five U.S. Department of Agriculture fruit and vegetable market news offices in Houston, Cleveland, Louisville, Minneapolis and Kansas City, Mo., have been closed in a cost cutting move, announces the USDA.

## CRANBERRIES

THE NATIONAL CRANBERRY  
MAGAZINE

VOLUME 45—NO. 12

December 1981

Send correspondence to:

P.O. Box 249

Cobalt CT 06414

Phone: (203) 342-4730

Bob Taylor, Publisher/Editor

## ADVISORS, CORRESPONDENTS

MASSACHUSETTS—Dr. Chester E. Cross, Director, Retired, Massachusetts Cranberry Experiment Station; Irving Demoranville, Extension Cranberry Specialist, Mass. Cranberry Station; Carolyn Caldwell, Rochester.

NEW JERSEY—Philip E. Marucci, Cranberry and Blueberry Specialist, Cranberry and Blueberry Laboratory, Chatsworth; Elizabeth M. Carpenter, Chatsworth.

NOVA SCOTIA—I.V. Hall, Botanist, Research Station, Kentville.

OREGON—Arthur Poole, Coos County Extension Agent, Coquille.

WASHINGTON—Azmi Y. Shawa, Horticulturist and Extension Agent in Horticulture, Coastal Wash. Res. and Ext. Unit, Long Beach.

WISCONSIN—Tod D. Planer, Farm Management Agent, Wood County; Joan E. Humphrey, Friendship.

CRANBERRIES is published monthly by the Taylor Publishing Co., Wellwyn Drive, Portland CT 06480. Second class postage is paid at the Portland, Conn., Post Office. Price is \$8 a year, \$15 for two years, 80 cents a copy in the U.S.; \$9 a year in Canada; \$10 a year in all other countries. Copyright 1981 by Taylor Publishing.

ISSN: 0011-0787

# Grower debunks black bear plan



**J. GARFIELD DeMARCO** tackles problems with wit and good humor. (CRANBERRIES photo by Elizabeth Carpenter)

By **ELIZABETH CARPENTER**  
 "They should let the black bears loose in the State House."

That was the response of J. Gilbert DeMarco to a proposal by

the state Division of Fish, Game and Wildlife that some of the berry-loving mammals be relocated from the state of Pennsylvania to New Jersey's Pine Barrens.

State cranberry and blueberry farmers familiar with the general manager of A. R. DeMarco Enterprises Inc. and the Chatsworth Cranberry Assn. were not surprised at the succinct, witty remark. DeMarco has been handling controversies between the state and growers with political acumen and good humor for years.

About the bears, whose ancestors haven't browsed in the Pine Barrens swamps and forests for 80 years, DeMarco says: "I'm not a hunter. I don't like to hunt. But these bears will be killed. This idea is not fair to them."

He doesn't think the idea is fair to growers, either. When the state agency suggested that blueberry growers erect electric fences around their fields, DeMarco replied that the expense would be exorbitant.

DeMARCO has been general manager of the family's approximately 8,000 acre cranberry-blueberry holdings for 16 years.

"As a boy, I spent many summers at Friendship with my grandparents," he recalled.

His grandfather, James Garfield Alloway, was manager of the once flourishing 2,171 acre farm in Washington and Tabernacle townships, Burlington County. Over the years, changes in ownership and lack of care have turned this once vibrant hamlet into rubble-filled cellars surrounded by weed-infested bogs and forests of pitch pine and Atlantic white cedar. Now, as the newest addition to New Jersey's vast Wharton State Forest, it bounds a southwestern portion of the farmland amassed by DeMarco's father, the late Anthony R. DeMarco (CRANBERRIES, May 1952, pp. 14-16).

An intertwining of farming, environmental concerns and political involvement have shaped DeMarco's



Since 1933

Members of  
the SIPC

**Gage-Wiley & Co., Inc.**

STOCKS & BONDS

Village Landing, Plymouth, Mass. 02361  
 Two blocks south of Cranberry World

617-746-3322 Call Toll Free in Mass 1-800-242-0263

years in Chatsworth. He, along with Earl Kerchner, his farm supervisor (CRANBERRIES, February 1971, pp. 14-15), and a competent staff have expanded the farm's productivity.

In 20 years, the annual cranberry harvest has increased from 11,000 barrels to 60,000 barrels. This can be attributed to early drawing of water from bogs—late March and early April—careful attention to potential plant and animal pests, an extensive irrigation system and water harvesting. In 1980, approximately 150 barrels per acre were produced from about 400 acres of bogs harvested.

Varieties include Cropper, Stevens, Early Black, Wilcox, Howe, Centennial, Pilgrim, Champion and Harold. Last year Cropper outshone other varieties, producing over 300 barrels per acre.

Although a history enthusiast, DeMarco intimates that the Harold variety, related to the old, native Jersey berries, "won't be around much longer with a production record of 50 barrels per acre."

While Chatsworth Cranberry Assn. is the management company for DeMarco's cranberries, A.R. DeMarco Enterprises owns the farmland and oversees the blueberry production. Blueberry varieties include Blue Crop, Blue Ray, Early Blue, Weymouth and Berkeley, with Blue Crop being the most extensively planted.

Harvest records have annually increased despite the fact that producing acreage has slightly decreased in the last decade. These berries are marketed throughout the U.S. and some European Countries by the Atlantic County Blueberry Growers Assn., of which DeMarco is currently serving his 13th year as director.

"EARLE HILL is 100 percent right about vandalism in the Pines (CRANBERRIES, June 1981, p. 6)," DeMarco says. "Although my father purchased most of our land in an effort to preserve a quality water source, today it is equally important as a buffer against people and their cars."

DeMarco joins other growers in hoping Senate bill 3346 will receive Governor Byrne's approval.

"This bill will exempt farmers from payment of water diversion fees and will allow county agents rather than the New Jersey Department of Environmental Protection to grant certification for farm water use plans," he explains.

DeMarco, formerly chairman of the

Cranberry Marketing Committee for four years, continues to serve as a member. Aware of the current controversy surrounding the concept of marketing orders, he continues to believe "a marketing order serves several important functions." These include, he says, "information gathering, monitoring of trends and bog renovation, as well as providing a forum through which growers exchange ideas."

Professing to have "no mechanical aptitude," DeMarco says that "we'll use (an industry related invention) when it's been perfected." His strong points are an exceptional organizational ability and a legal expertise acquired during and after his graduation from Yale Law School with honors.

In 1971 DeMarco authored Assembly bill 2096 which established a 15 member Pinelands Environmental Council with a strong agricultural and conservation orientation. He served as the American Cranberry Growers Assn. representative to the body and was its chairman from 1972-77. The council was dissolved in '79 after stormy years punctuated by a shortage of state funding, lack of what DeMarco described as public understanding regarding agricultural and environmental compatibility, and politics.

"I don't think there's a more avaricious group than environmental planners," he says, in retrospect.

"I don't want a garbage dump unless I design it" is often their attitude,

he charges.

Solicitor for Woodland Township's zoning and planning boards in the late 1960's, DeMarco continues to be acutely aware of the need for wise land use management.

"In the late 1960's, there was a push by the state for high density, low income residential development," he says. "At that time, Woodland Township had some of the toughest zoning ordinances in New Jersey and its officials said 'no.'"

Ten years later, he notes, the state has reversed its position and espoused the concept of one house for every 3.2 acres of land, with minimal building, in the Pine Barrens' core area that includes Woodland Township.

"I have been consistent." That DeMarco understatement defines his tenacious 16 years of support for his beliefs that no person's land should be confiscated without just compensation, that Pine Barrens municipalities should be allowed to maintain their integrity and autonomy and that restrictions should not be imposed on Pine Barrens cranberry and blueberry cultivation.

As other avenues for seeing these beliefs maintained have closed, his political commitment has increased and today he is serving his eighth term as Burlington County's highly

(continued on page 9)

# M. C. Howes



Specializing in  
Agricultural Construction

*Flumes  
Canals  
Land Clearing  
Sanding  
Water holes  
Ditching  
Dikes  
Grading*

**MERT HOWES**  
295-5542

**619 COUNTY ROAD**  
**W. WAREHAM, MASS.**  
**02576**

# BARK RIVER

*Culvert and Equipment Co.*



## OUR BUSINESS

SERVING CONSTRUCTION . . . .

MINING . . . .

MUNICIPALITIES . . . .

LOGGING . . . .

AND

## Wisconsin Cranberry Growers

WE ARE THE NO. 1 CULVERT PRODUCT  
SUPPLIER IN WISCONSIN & UPPER MICHIGAN.

(ALUMINUM PIPE, HAND WHEEL OPERATED GATES, ETC.)

. . . . AND WE'RE THE AREA DISTRIBUTOR FOR

**International** CONSTRUCTION & INDUSTRIAL EQUIPMENT  
AND OTHER EQUIPMENT MANUFACTURERS  
(CRAWLERS, TRACTORS, EXCAVATORS, LOADERS, ETC.)

## Can We Serve You? . . .

**EAU CLAIRE**  
(715) 835-5157

**GREEN BAY**  
(414) 435-6676

**ESCANABA**  
(906) 786-6920

**IRONWOOD**  
(906) 932-0222

**MADISON**  
(608) 222-4151

**MILWAUKEE**  
(414) 461-5440

# regional news notes

## Massachusetts

By IRVING DEMORANVILLE

The latest USDA crop report for early October shows Massachusetts unchanged from August at 1,180,000 barrels. However, the harvest was essentially over at the time of this writing and it would appear that our crop will come in close to 1,100,000 barrels.

### GROWER DEBUNKS . . .

(continued from page 7)

successful Republican chairman.

TRAVEL and historical research are two of the pleasures that provide DeMarco with relief from his busy schedule. His lifelong study of the dynasties and art treasures of Egypt culminated in a trip up the Nile River last February, followed by a trip to the Holy Land.

Among the local mementos he owns is a photograph of the Chatsworth Country Club taken at the turn of the century. This elegant Tudor style mansion was built under the direction of former U.S. Vice President Levi P. Morton and frequented by an Italian diplomat, Prince Mario Ruspoli de Poggio-Suasa, according to John McPhee's *The Pine Barrens*. A sleek Blue Comet passenger train speeding along the Central Railroad lines of New Jersey brought diplomats, royalty and American business tycoons to the shores of Chatsworth Lake to visit the prince.

"I remember seeing the club's walls and foundation on our property by the lake," DeMarco recalls. Today only the photograph and the memories remain and, like so many chapters in Pine Barrens history, the forest has reclaimed the land.

**WHAT IS the future of A.R. DeMarco Enterprises and Chatsworth Cranberry Association?**

"You can't predict the future," DeMarco responds. "All anyone can do is have legal matters, tax arrangements and accounting in order."

But, with a broad smile, he adds: "We'll be here for a long time to come."

We issued a total of 20 frost warnings, 16 in October, and were again fortunate that there were no warnings until the last two days in September and no dangerous frosts until Oct. 9. With water in short supply, this was of great importance because many areas were harvested by the time of the frost danger. From Oct. 9 on, there were many nights when the temperatures were in the 18-20 range.

For comparison, we issued 28 warnings in 1980, 17 in 1979, 22 in 1978 and 11 in 1977.

Size of the berries for the first half of the harvest was small but improved toward the end, while quality was above average.

\*\*\*\*

Dr. Charles Brodel attended the recent 1981 State Representative IR-4 meeting in Washington, D.C. Chuck is the new representative from Massachusetts. IR-4 is a

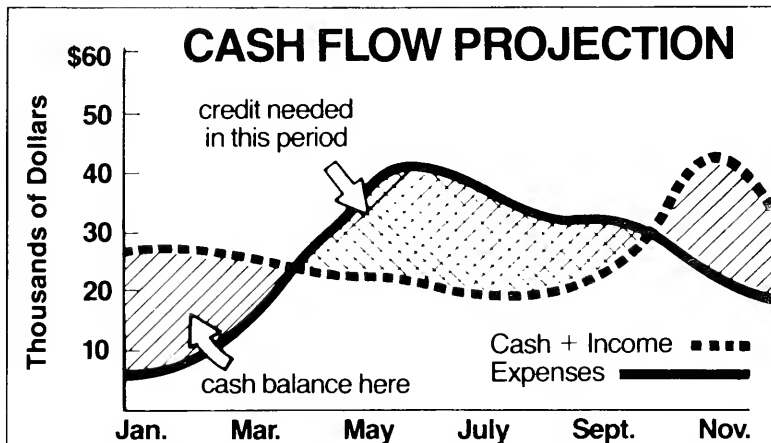
government project for clearing pesticides for minor crop use. Devrinol and Roundup registrations have been assisted by this program.

Dr. Robert Devlin attended the annual meeting of the N.E. Agricultural Chemicals Assn. in Brattleboro, Vt., recently.

Dr. Robert Devlin attended a Weed Control Round Table in Syracuse, N.Y., from Oct. 26-29. The meeting is sponsored by Agway Inc.

### WINS ART CITATION

Marlene Taylor-Weil, whose cartoons and illustrations have appeared in CRANBERRIES periodically, recently won an honorable mention for her acrylic, "New York Bowery," in the first annual women's juried exhibition at the Seneca Falls Gallery in San Diego.



## Cash Flow: the pulse of your farm

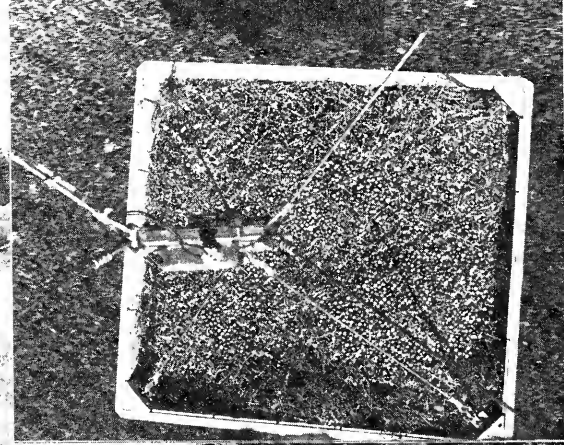


Every farm has its pulse — its regular tide of income and expenses, easily seen on a cash-flow chart.

When you know your farm's cash flow, you know when to expect a cash surplus. Or, when to take out a loan — or, just as important, how much to borrow, so you won't have money loafing around.

Knowing your cash flow can help you be a better financial manager. It helps you take advantage of discounts. See us, and we'll help you start your cash-flow planning today.

**Production Credit Associations of Wisconsin**



## HELICOPTER LIFT . . .

(continued from page 2)

the maneuvering—whether viewed from the ground or aboard.

“I started flying in 1939,” Dan Clark told CRANBERRIES. “I started my son, John, in 1967. He does real well. He has a good,

smooth touch. It’s like playing a piano. One guy can just play the piano and another guy can really make the music flow.

“We both started on airplanes.”

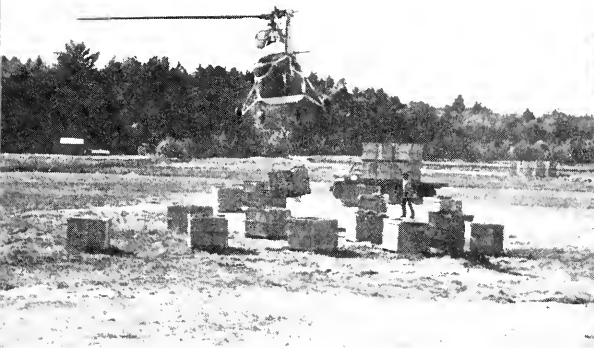
Clark owns two choppers, “about the biggest privately owned helicopters in New

England,” plus crop dusters.

Besides working throughout the growing season and harvest for growers, C & W Ag Air Service takes on forestry work, such as gypsy moth control, and public health assignments, such as mosquito control.







A MOST COMPLETE INVENTORY OF IRRIGATION ACCESSORIES



# LARCHMONT

ENGINEERING & IRRIGATION, INC.

P.O. Box 66, 11 Larchmont Lane, Lexington, MA 02173 (617) 862-2550

IRRIGATION EQUIPMENT DESIGNED ESPECIALLY FOR THE CRANBERRY INDUSTRY

FOR EXAMPLE:

- Gorman-Rupp Self Priming Electric Sprinkler Pumps*
- Proven Quick Couple Riser*
- Ingersoll-Rand Water Harvest Pumps*
- Aluminum Insert Coupling For 4" Poly Pipe*

Contact:

Larchmont Engineering  
Phil Tropeano, President  
(617) 862-2550 (Call Collect)



Contact:

Bill Stearns, Plymouth, Mass.  
(617) 746-6048  
(617) 746-2610





# Pick quilt winners at Edaville Festival

By CAROLYN CALDWELL

Fifteen winning quilt patches from 10 states were selected for this year's National Cranberry Quilt at the fourth annual quilt contest held recently at the Massachusetts Cranberry Festival on the grounds of the Edaville Railroad in South Carver.

"The cranberry itself—from the plant to the delicious end uses," was the theme of the 1981 quilt, which will join the three previous quilts in exhibitions throughout the U.S.

Over 60 inspired "patches" from 23 states were in the competition to be stitched into the quilt, according to contest coordinator Nancy Mott of Carver.

A Springfield, Mo., woman, Janelle Jones Knox, created the first prize patch, a graphic winter scene of a chickadee with cranberries.

"Each patch is judged on the workmanship and execution of the theme, as well as color and design," Mrs. Mott said. "We got excellent, excellent quality. It was a very hard decision. There're a variety of techniques used: applique, piecework, combination."

"For us, it is a year round commitment," said Joyce Mazalewski of the cranberry quilt committee. "It means eight solid weeks of volunteer work." This includes coordinating the nationwide contest, five days at the Massachu-

setts Cranberry Festival and the attending of quilt conventions around the country.

Mrs. Mazalewski fashioned the title patch.

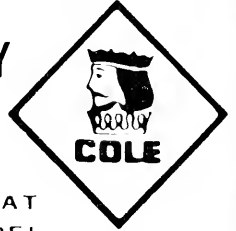
Four quilting experts from Bridgewater, Mass., Louise Zahr, Jean Novotny, Eva Foth and Roberta Steinmetz, demonstrated stitching

techniques. Patterns of the winning quilts also were available.

Accompanying the contest, a quilt sale was held at the festival Oct. 10, during which collectors and creators sold thousands of dollars of original, traditional and antique fancywork, ranging from eyeglass cases and pillows to full size quilts. The National Cranberry Quilt Committee hopes to establish the sale as a New England tradition.

Besides Knox and Mazalewski, the quilt contest winners were: Helen Scot-

## WISCONSIN CRANBERRY HEADQUARTERS FOR



EVITAL • SOLO • DIQUAT  
2-4-D • DOWPON • ETHREL  
SEVIN • PARATHION • GUTHION • DIAZINON  
KOCIDE • DIFOLITAN • FERBAM  
COPPER SULFATE • PRINCEP

## Cole Chemical Supply

DIVISION OF *Hopkins* AGRICULTURAL CHEMICAL CO  
P.O. BOX 7211, MADISON, WISCONSIN 53707  
608-221-1581

## Mike's Portable Welding

Cranberry Equipment  
Built and Repaired

Clippers, Flumes  
and Wheel-offs,  
all types of equipment

FREE ESTIMATE

(617) 748-0014

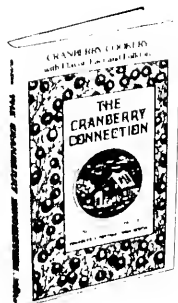
(617) 748-1415

(617) 748-0031

## The scoop of the year!

*Cranberry Flavor, Fact and Folklore in*

THE CRANBERRY CONNECTION, by Beatrice Buszek. Your favorite berry pops up in kitchen-tested recipes for every delight from Cranberry Bog to Cranberry-Banana Bread, Cranberry Avocado Dip, and countless other desserts, drinks, salads, entrees. "A fascinating revelation of the many uses for cranberries . . . you'll find this book a treasure."—*Des Moines Register*. Paperback, \$7.95.



Please send \_\_\_\_\_ copies of THE CRANBERRY CONNECTION, \$7.95 each.

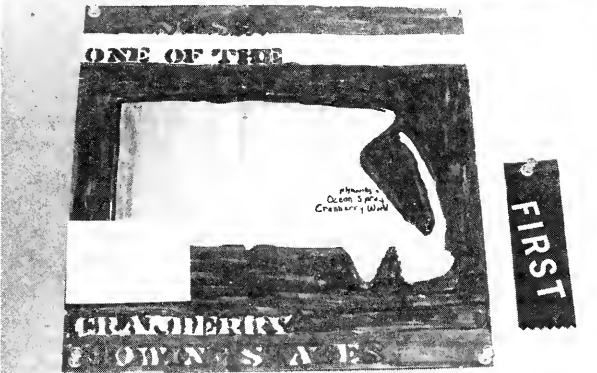
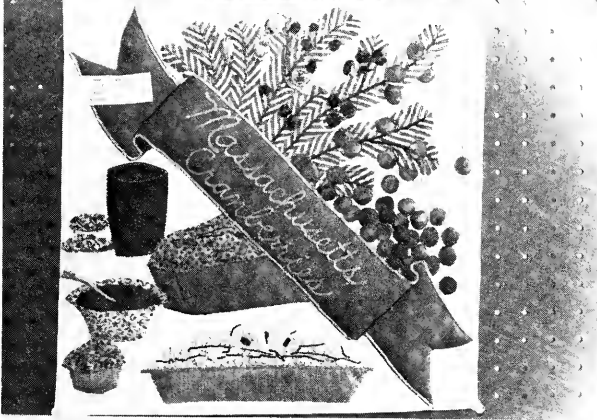
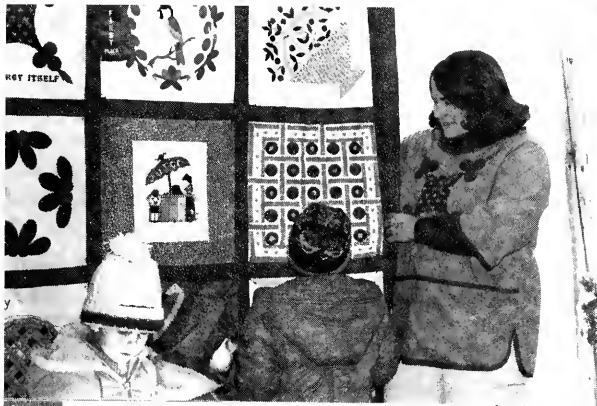
Name \_\_\_\_\_

Address \_\_\_\_\_

Zip \_\_\_\_\_

Add \$1.00 for postage; Conn. residents add 7% sales tax.

CRANBERRIES MAGAZINE  
P. O. Box 249, Cobalt, CT 06414



TOP LEFT: Joyce Mazalewski shows the winning quilt to Revel Gilmore, Jessica Francis and Aimee Francis. CENTER LEFT: Cranberry quilt entry by Virginia Maunder, Leominster, Mass. BOTTOM LEFT: First prize winner in the Cranberry Poster Contest, grades 1-3, by Mary Soubassis. ABOVE TOP: Louise Zahr and Jean Novotny demonstrate quilt making. ABOVE BOTTOM: Judging the cooking contest. (CRANBERRIES photos by Carolyn Caldwell)

Portsmouth, Ohio; Sarah Hass, Fort Madison, Wisc.; Priscilla Harding, Chatham, Mass.; Viola Kech, Kingsville, Tex.; Phyllis Frey, York, Pa.; Sue Poteat, Palmdale, Calif.; Diane Schiltz, Fort Collins, Colo.; Helen Forcum, Richmond, Calif.; Donna Graw, Concord, Mass.; Emilie Ryan, Pepper Pike, Ohio; Laurie Sieh, Pasadena, Calif.; Kathleen Quastler, San Diego; Charlotte Taber, Brunt, Mich., and Mary Jane Meinzer, Kenmore, N.Y.

Holiday Greetings  
From the People at  
CRANBERRIES

## High volume trailer pumps

12 to 16 inch discharge  
20 foot tongue  
PTO shaft  
with  
marine bearing

Phil Helmer  
1060 3rd St. N.  
Wisconsin Rapids WI 54494  
(715) 421-0917

# 12 year old repeats in bake contest

This year's "Make It Better With Cranberries" contest at the Massachusetts Cranberry Festival in South Carver featured a competition between first place winners and their original recipes in the past five years.

The best of show award went to 12 year old Amy McDermott of Scituate, Mass., for her cranberry-mincemeat pie. Amy, a first place winner in the 1979 contest, also took a first in the two crust or lattice crust pie category this year. Second and third place in this category went to Charlene Lawson of Carver.

Lawson also swept all three prizes in the one pie crust division.

Theresa Francoeur of Wareham scored a first in dropped cookies. Amy McDermott was second.

Other prizes:

Bar cookies—Lillian Harju, Carver, first; Francoeur, second.

Quick breads—Francoeur, first.

Coffee cakes—Nancy Mott, Carver.

Any other imaginative way of using cranberries in everyday cookery—Geraldine Griffith, South Carver; Francoeur, second.

Winners in the regular contest:

Class 1 a—1. Lawson; 2. Mildred Taft, North Abington; 3. Krystyna Leroe, E. Bridgewater.

Class 1 b—1. Taft; 2. Carol McDermott, Scituate; 3. Lawson.

Class 2 a—1. Bobby Mott, Carver; 2. Mary Parkonen, W. Wareham; 3. Dorothy Angley, Carver.

Class 2 b—1. Grace Andruk, Bridgewater; 2. Julie McDermott, Scituate; 3. Lawson.

Class 3—1. Geraldine Griffith, South Carver; 2. Lawson; 3. Parkonen.

Class 4 a—1. Francoeur; 2. Taft; 3. Lawson.

Class 4 b—1. Julie McDermott; 2. Griffith.

Class 5 a—1. Barbara Ann Grabowski, Carver; 2. Harju; 3. Taft.

Class 5 b—1. Mott; 2. Parkonen.

Class 6—1. Francoeur; 2. Taft; 3. Lawson.

Francoeur and Griffith took best of show.

C.C.



*Here's the recipe by 12 year old Amy McDermott of Scituate, Mass., that won best of show at this year's Massachusetts Cranberry Festival. It must be scrumptious, for she topped all other first place winners over the past five years in this special invitational event.*

## CRANBERRY-MINCEMEAT PIE

Pastry for a two crust, 9 inch pie  
2 cups prepared mincemeat

1 16 ounce can whole berry  
cranberry sauce

1 cup coarsely chopped pecans

2 tablespoons grated orange rind

1 teaspoon tapioca

2 teaspoons rum flavoring (optional)

Line pie plate with pastry; mix mincemeat, cranberry sauce and other ingredients until well blended, pour into pie crust, and cover with remaining crust. Seal edges and slash top; bake in 400 degree oven for 30-35 minutes or until richly brown. Cool before cutting.

## LARGEST EXPORT

Agriculture is America's single largest export, reminds the Senate Republican Conference.

American farmers produce 43 percent of the world's corn, 44 percent of the world's wheat and 71 percent of the world's coarse grains—all on just 7 percent of the world's land.

Tell your grower friends about  
**CRANBERRIES—only \$8 a year**

## COMMITTEE ISSUES INVENTORY REPORT

The inventory of cranberries on hand, as of Sept. 1, 1981, is 734,542 barrels, according to Delbert D. Rasmussen, general manager, Cranberry Marketing Committee.

The breakdown is 438,624 barrels in processed form, 295,918 barrels in freezers.

# Turf Equipment Inc.

247 N. Everett St., Middleboro MA

## KUBOTA Diesel Equipt.

Tractors 2 & 4 wheel drive — 12-90 hp.

compact Excavators — 3-5 ton

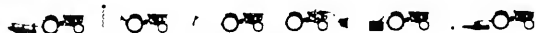
stationary, water cooled Engine sets — 9-34 hp.

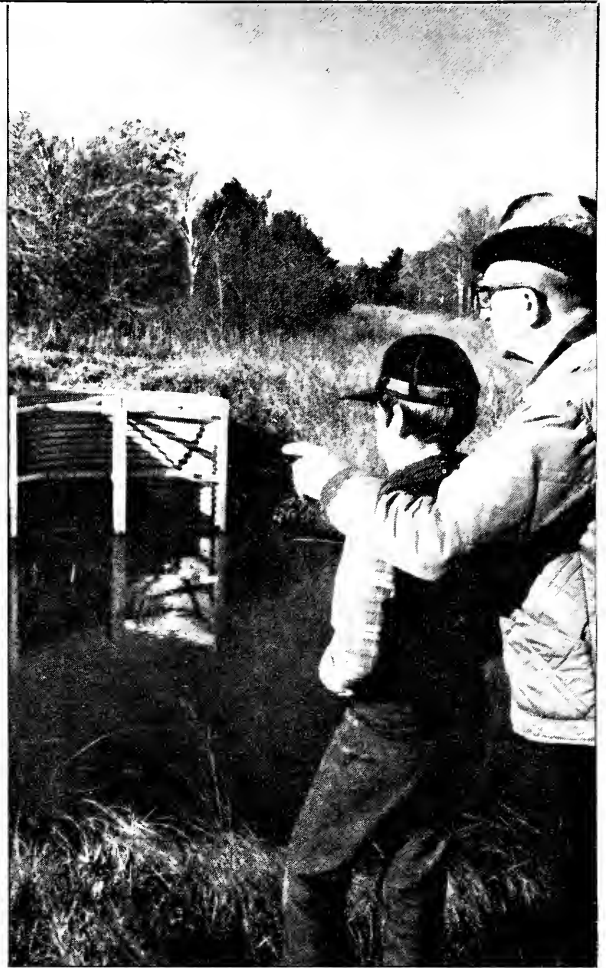
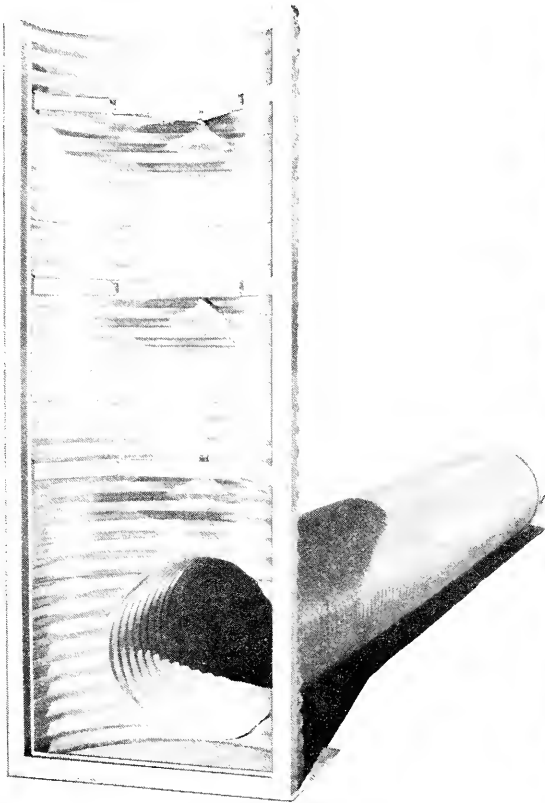
.....

All Types of Implements + Mowers 947-6299

Specialty Fabrication Work Res. 947-1047

\* Sales \* Service \* Parts \* Leasing \*





## Install the flow gates now that generations will rely on.

Felker flow gates are built to last, thanks to famous Felker welded construction, generously braced designs, and highest quality materials. Manufactured in aluminum only.

Standard sized for conduits from 15- to 48-inch diameters with riser widths from 24- to 72-inches, height as required. Single, double and triple log channel designs, other sizes available upon application. For virtually any size or water control application, Felker Brothers are flow gate specialists. **Send for free bulletin.**

OUR  
STRENGTH  
IS METAL



**FELKER BROTHERS CORPORATION**

Marshfield, Wisconsin 54449

PHONE 715-384-3121 TWX 510-370-1846 TELEX 29-3451

## AGRIFAX USES COMPUTER TO KEEP FARM RECORDS

By CAROLYN CALDWELL  
Agrifax, the computerized

record keeping system offered by the Southern New England Farm Credit office in Taunton, Mass., takes the "drudgery" out of accounting, according to Joe Bonelli, Agrifax manager for the Farm Business Services of Farm Credit.

"We are very interested in working with cranberry growers," Bonelli says, especially in providing better records for expanding new agricultural businesses.

The end result of Agrifax for the grower is a detailed, computerized listing of all receipts and expenses. Monthly, a cash summary reconciles categories and records with the checkbook balance. The current year's cash flow performance can be compared to last year's or to a projection.

The fee for Agrifax is based on a percentage of gross income.

Bonelli, who has a master's degree in agricultural economics, grew up on a

farm and raises cows part time. Agrifax coordinator in Taunton is Lisa Latch.

Office  
295-2222

K. Beaton  
295-2207

## BEATON'S CRANBERRY GROWERS SERVICE



D. Beaton  
888-1288

P. Beaton  
947-3601

WAREHAM, MASS.

Specializing in

- DITCHING
- SANDING
- COMPLETE BOG MANAGEMENT
- NETTING
- WEED CLIPPING
- HARVESTING (Wet and Dry)

Also

Complete line of portable Crisafulli Pumps 2" - 16"  
Plastic netting for suction boxes



**Bog construction**

**Vine setting**

**Flumes and flume work**

# **Nemasket Construction Co., Inc.**

**275 Wareham St., Middleboro MA 02346**

**(617) 947-1723**

# He'd like sultry voice for early a. m. calls

As much as he'd prefer to be awakened at 3 a.m. by a "very sexy female voice," grower John C. Decas is happy to hear the clear, robot sounds of "Chatterbox" giving early morning frost warnings.

The space age telephone temperature monitor won the commercial equipment award for Decas at this year's Cape Cod Cranberry Growers Assn. annual meeting. Decas is past president of CCCGA.

Last year RACO Manufacturing and Engineering Co. of Emeryville, Calif., asked Decas what he thought was the best way to deliver frost warnings. Half jokingly, Decas said he'd like to get telephone calls from the bog. By this spring, RACO had developed Chatterbox.

Decas is the local dealer for the system.

The device operates by means of a sensor planted on the bog and wired to Chatterbox, which houses the sensor inputs, controls and digital readings. Chatterbox can be placed on a pole, in a pumphouse or a box on the bog.

When the temperature reaches a pre-set level, the grower gets a call from Chatterbox. If no one answers, Chatterbox will call a second number. Calls are repeated every five minutes until the phone is picked up.

Chatterbox also can be attached to an electric pump starter that will automatically

kick on a sprinkler system at a predetermined temperature. The device also can monitor the pump pressure.

Chatterbox also can be reprogrammed for high summer temperatures and be wired to the pumphouse door for use as a burglar alarm.

C.C.



**MEIER EARTHMOVING INC.**



*"We're Best on Earth"*

**One yd. CAT backhoe**

*Bog Construction*

*Land Clearing*

*Canal Work*

*Flume Setting*

*Pond Construction*

*Ditching*

Contact:

Peter K. Meier  
63 South Street  
Halifax, MA 02338  
(617) 293-3218

Grower references available  
Equipped with swamp mats

## The CHARLES W. HARRIS Company

451 Old Somerset Avenue  
North Dighton, Mass.  
Phone 824-5607

**AMES**

*Irrigation Systems*

**RAIN BIRD**

*Sprinklers*

**HALE**

*Pumps*

Highest Quality Products  
with Satisfaction Guaranteed

## Niemi Electric Co.

ROBERT NIEMI

ELECTRICAL CONTRACTORS

HEAT, LIGHT and POWER WIRING

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL



TEL. 295-1880

Robert Niemi

Pinchurst Dr.

Wareham, Mass.

# IN EVERY INDUSTRY THERE IS A NAME FOR QUALITY



OCEAN SPRAY CRANBERRIES, INC., PLYMOUTH, MASS. 02360

AN EQUAL OPPORTUNITY EMPLOYER



# weather watch

## MASSACHUSETTS

October was another cold month, averaging 3.9 degrees a day below normal. This was the third colder than normal month in succession and the sixth successive and the ninth in the last 10 years of colder than normal Octobers.

Maximum temperature was 68 degrees on the 28th and the minimum was 30 degrees on the 13th, 14th and 15th. There were no warmer than average days during the month, which is unusual. Cooler than average periods occurred from 1st-3rd, 8th-12th, 20th, 25th-26th and 29th-31st.

Rainfall totaled 3.62 inches or about 0.2 inch above normal. There were eight days of measurable precipitation, with 1.11 inches on the 1st and 2nd as the greatest single storm. We're 4-1/3 inches below average in 1981 to date but are 6 3/4 inches ahead of 1980 for the same period.

I.E.D.



## A Solid Investment

requires solid financing . . . and that's our specialty. Credit for equipment, land, buildings . . . all your financial needs. For Credit . . . Plus a full range of other finance-related services, see your local Farm Credit representative.

P.O. Box 7 Taunton, Mass. 02780 Tel: (617) 824-7578  
Office: Located on Rt. 44, 1/4 Mile West of Rt. 24

# Put experience to work

## Sylvester A.



### GENERAL CONTACTORS

Yes...37 years of road construction and site development experience. Established in 1941, Sylvester A. Ray Inc. Now one of the area's oldest and leading general contractors. Our convenient plant in Plymouth is ready to furnish your immediate needs.

- BOG CONSTRUCTION
- FLUMES
- BOG SAND
- WASHED STONE
- BANK GRAVEL
- FILL

**834-6636**



# Evital<sup>®</sup> controls nutgrass and cutgrass. And 14 more troublesome weeds in cranberries.

Evital doesn't fall short in effective weed control. It stops 16 profit-robbing weeds, including tough ones like smoke grass, spike rush, and barnyard grass.

- **evital** is the pre-emergence herbicide that now can be applied in the fall or spring.
- **evital** stops tough weeds in cranberries better than any other granular herbicide.
- **evital** is a sand-core granule making it an outstanding aerial formulation; easy ground application as well.
- **evital** is the No. 1 choice to apply over newly-sanded bogs to prevent weed emergence.

It's the broad spectrum weed-control herbicide that cranberry growers depend on year after year.

(Use herbicides effectively. Read and follow label directions carefully.)

  
**evital<sup>®</sup>**

**A GRANULAR HERBICIDE FOR CRANBERRIES**



Sandoz, Inc. Crop Protection/480 Camino Del Rio South/San Diego, CA 92108

Copyright, 1981, Sandoz, Inc.

