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Miss Newman  
1081 10th St  
Washington



EASTERN STATES

# Cooperator

JANUARY, 1943

*Including*

1943 VEGETABLE SEED CATALOG

FEB 2 1943



# YOUR FERTILIZER SUPPLY

● *Eastern States Farmers' Exchange has its full share of the country's supply of fertilizer for 1943 spring use.*

FAIR DISTRIBUTION of fertilizer nitrogen is assured by reducing the amount in the limited number of grades allowed for this year. For instance, 6-15-15 takes the place of last year's 8-16-16, and 5-20-10 replaces 8-24-8.

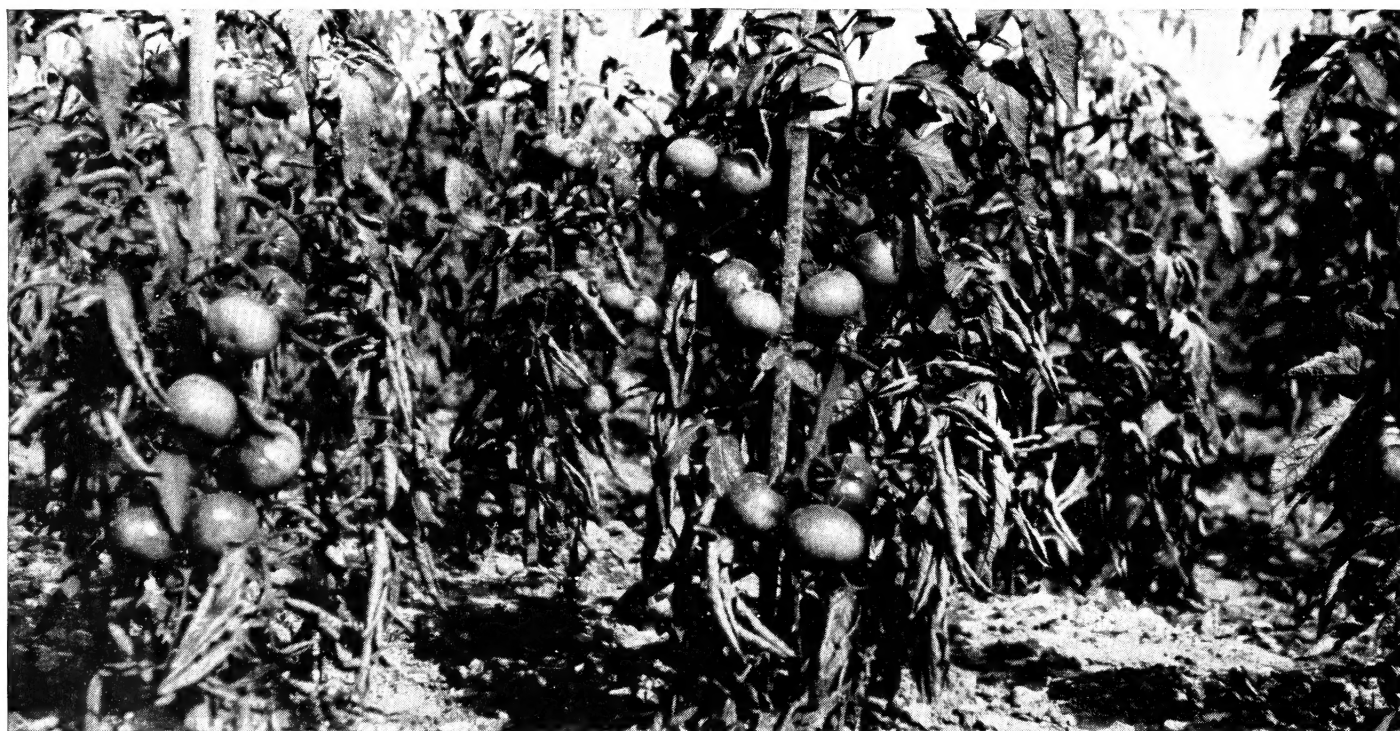
This reduction applies to all corresponding grades.

As it has for nearly 20 years, this cooperative purchasing association recommends strongly the use of high analysis grades. They have always saved farmers several dollars a ton. They still do and the saving they secure in bags, labor and transportation space is a real boost to our war effort.

## NOTICE!

Your Eastern States local representative is now taking applications for fertilizer for 1943 spring use. Get in touch with him if he has not sent you a notice. Place your application early! You need this information when you make your application:

1. Crops you fertilized between January 1 and June 30, 1942.
2. Acres of each crop you fertilized.
3. Rate at which you applied fertilizer.
4. Crops you wish to fertilize between January 1 and June 30, 1943.
5. Acres of each crop you plan to fertilize.



### 1943 Vegetable Fertilizers

Here are the grades of Eastern States fertilizer which will be of particular interest to vegetable growers:

6-15-15 {Not for Maryland and Delaware}  
4-16-8 {Not for New England}

5-20-10 {New England only}  
4-8-12 {Delaware and Maryland only}

**COOPERATIVE EASTERN STATES FERTILIZER SERVICE**

# VEGETABLE SEED ORDER

to  
**EASTERN STATES FARMERS' EXCHANGE**  
 P. O. Box 1482  
 WEST SPRINGFIELD, MASSACHUSETTS

V \_\_\_\_\_

Date of Order \_\_\_\_\_

Name 
 Mr. }  
 Mrs. }  
 Miss }
  \_\_\_\_\_  
Please Print Plainly

Street (or R.F.D.) \_\_\_\_\_

Post Office \_\_\_\_\_ State \_\_\_\_\_

R.R. Station \_\_\_\_\_ State \_\_\_\_\_

Name of local Eastern States Representative \_\_\_\_\_

Method of Shipment Desired (check one)

In E.S. Rep.'s Feed Car  Parcel Post   
 Direct by Freight  Express

(If by express or parcel post on shipments over 50 lbs., member pays transportation cost extra.)

**Send payment with order and avoid C.O.D. Charges**

Prices to apply are those in effect on postmarked date of this order.

Shipping date desired \_\_\_\_\_

**Order only varieties and sizes as specified. Keep a copy of this Order for your own record.  
 If supplies of any varieties ordered are exhausted, will you accept our substitutes?  
 This order is given and accepted in accordance with conditions printed on the back hereof.**

Column 1					Column 2				
No. of Pkg.	Size of Each	Indicate Variety Desired Where More Than One Is Available	Unit Price	Amount	No. of Pkg.	Size of Each	Indicate Variety Desired Where More Than One Is Available	Unit Price	Amount
		ASPARAGUS SEED ***					Brought forward from Column 1		
		ASPARAGUS ROOTS ***					CHARD **		
		BEAN ***					CORN - SWEET ***		
		BEET **							
							CORN - POP ***		
		BROCCOLI *					CUCUMBER ***		
		BRUSSELS SPROUTS *							
		CABBAGE *					DANDELION **		
							EGGPLANT *		
		CAULIFLOWER *					ENDIVE **		
		CARROT **					KALE ***		
							KOHLRABI ***		
		CELERY *					LETTUCE *		
Total of Column 1					Total of Columns 1 and 2				

**SEND PAYMENT WITH ORDER TO AVOID C.O.D. CHARGES**

Column 3					Column 4				
No. of Pkg.	Size of Each	Indicate Variety Desired Where More Than One Is Available	Unit Price	Amount	No. of Pkg.	Size of Each	Indicate Variety Desired Where More Than One Is Available	Unit Price	Amount
Brought forward from Column 2					Brought forward from Column 3				
		MUSKMELON ***					SPINACH **		
		WATERMELON ***					SQUASH ***		
		ONION SEED***							
		PARSLEY **					TOMATO *		
		PARSNIP ***							
		PEA **							
							TURNIP ***		
		PEPPER *			Total of the entire order				
					<p align="center"><b>Do Not Write in This Space.</b></p> <p align="center">Questions will be answered more promptly if submitted separately.</p>				
		PUMPKIN ***							
		RADISH **							
		RUTABAGA ***							
		SALSIFY ***							
Total of Columns 1, 2 and 3									

- \* Can be shipped Jan. 1
- \*\* Can be shipped Feb. 1
- \*\*\* Can be shipped Mar. 1

Orders requesting early shipment and including items in different groups will be split and each part shipped at earliest date possible as indicated.

This order is subject to acceptance by the West Springfield office of the Eastern States Farmers' Exchange and after such acceptance is further subject to cancellation or prorating by the Exchange in event of seed crop failures, strikes, fires, embargoes or other contingencies beyond the control of the Exchange. It is further subject to change by the buyer in event of necessary change in his cropping plans upon presentation of satisfactory explanation in writing to the Exchange office in West Springfield and if desired kinds are available.

The Eastern States Farmers' Exchange has exercised all reasonable care and precautions in the production, preparation and distribution of this seed, but cannot be responsible for the operation of Nature's laws, nor control the conditions under which it is later stored, handled, planted or grown; so therefore gives no warranty express or implied concerning the description, quality, productiveness or condition of the resulting crop and shall in no case be liable for an amount greater than the amount actually paid for the seed. Statements of germination, description and other information are given as a report of our tests, observations and advice. Orders cannot be accepted or filled on any other terms.

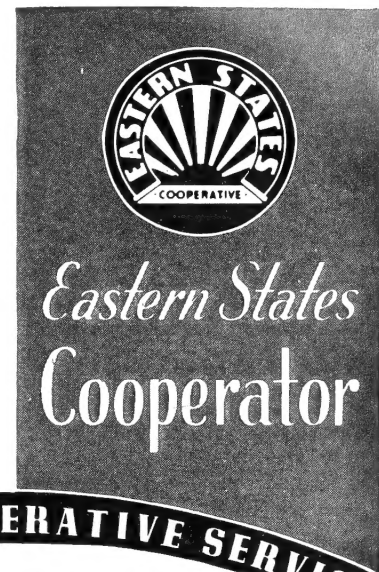
The member agrees that shipment will be made and accepted under the following condition::

**CONFIRMATION NOT ISSUED IN DETAIL. KEEP A COPY OF YOUR ORDER SO YOU CAN CHECK OUT CONTENTS OF YOUR SHIPMENT.**

**I**F PERCENTAGE figures and the predictions of the fellows who write about "outlooks" can increase your respect for the family garden, note this one: A recent report on the food situation indicates that about half of many commonly used canned food items produced in 1943 will be reserved for our fighting men or for lease-lend purposes.

That translates to mean that Dad's eagerly awaited early peas, Mother's canned corn and Grandma's beet pickles will stand between a lot of Americans and a big blank spot on the dinner table.

Probably a lot of fellows think that having a good looking girl fill the garden basket makes the vegetables taste a little better. Well, you'll have to ask Francis Peaslee of Pittsfield, New Hampshire, about that. It's his daughter, Dorothy, on the cover . . . and his vegetables, too. Fred Davis of Rumford Press made the color shot.



**USEFUL INFORMATION IS A VALUABLE COOPERATIVE SERVICE**

Volume 19  
Number 1  
**JANUARY 1943**

**REMINDERS**

**SPRAYS — DUSTS:** They may be limited in choice and restricted in supply. Thus farm garden needs should be protected by early orders.

**CHICK FEEDERS:** Sanitation and labor saving are good reasons for you to be reminded of the coming need for *Eastern States Cardboard Chick Feeders*.

**GARDENS:** Since farm gardens should, this year especially, be planned to produce year-around food, protect yourself **NOW** on the *Eastern States Seed and Fertilizer* you will need.

**FLOUR:** Eastern States has a choice of the flours commonly used in home baking which is now gaining in favor with retail bread deliveries cut.

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The *Eastern States Cooperator* is published at Concord, New Hampshire, the first of each month by the Eastern States Farmers' Exchange. Editorial offices are at 95 Elm Street, West Springfield, Massachusetts. The Exchange is a cooperative purchasing association incorporated under the laws of Massachusetts. It has no dues or membership fees; any farmer making a purchase through the organization automatically becomes a member. The subscribers to the *Eastern States Cooperator* are chiefly the members of the Exchange — the magazine being a part of the services of the organization in which they participate cooperatively. Others wanting this magazine, but not receiving it in connection with the Exchange's business, may receive it regularly at a subscription of \$1 a year.  
*Address: EASTERN STATES COOPERATOR, West Springfield, Mass.*



*Maximum hatchability is favored by the NEW Eastern States method of feeding breeders described on this page.*

for production and body maintenance call for 32 pounds, feed seven pounds of *Breeder Concentrate Pellets*. The other 25 pounds can be any one of the following: (1) 25 pounds *All-Mash Egg*; (2) 12½ pounds *Egg Mash* and 12½ pounds *Scratch*; (3) six pounds *Hen Supplement* and 19 pounds *Scratch* (*Hen Supplement* available only in Pennsylvania, Delaware, Maryland and Maine). Keep cockerel feeders filled with a mixture of one part of *Breeder Concentrate Pellets* and three parts of *Egg Mash Pellets*.

Each hen should have an opportunity to secure her share of *Breeder Concentrate Pellets*. If necessary, add extra hopper space in the form of a small "V" shaped trough for pellet feeding only.

When feeding *All-Mash Egg* and *Breeder Concentrate Pellets* (plan 1 above) supplemental oyster shell is not required. Supplemental oyster shell should be fed with the mash and scratch systems (plans 2 and 3 above). Provide insoluble grit to all breeders.

As the hatching season ends, the seven pounds of *Breeder Concentrate Pellets* should be replaced by seven pounds of the market egg ration in the three systems outlined above.

Shifting to and from the *Breeder Concentrate Pellets* affects hatchability only. Flock health or production will not be altered. *Egg Mash* and *Scratch* or *All-Mash Egg* will produce an unsatisfactory hatch. Supplemented with *Breeder Concentrate Pellets*, there will be higher fertility, fewer dead germs and more chicks with greater vitality.

There are many factors affecting hatchability such as: inheritance, health, housing, management, egg storage and handling, incubation and feed. Feed is only one factor and cannot offset or make up for neglect of other factors causing poor hatches. If you want to check factors on your farm which affect hatchability, write to Feed Service, Eastern States Farmers' Exchange, West Springfield, Massachusetts, for a copy of the hatchability questionnaire. Eastern States will then study the information you supply and assist you to be sure all factors on your place favor good hatchability and vigorous chicks.

## Announcing . . .

### BREEDER CONCENTRATE PELLETS!

**E**ASTERN STATES announces the introduction, on January 6, 1943, of *Breeder Concentrate Pellets*. This new concentrate feed is a combination of nutrients which will fully supplement the present Eastern States laying mash to produce maximum hatchability. *Breeder Concentrate Pellets* has what it takes to make a market egg ration into a breeder ration. Market egg mashes plus *Breeder Concentrate Pellets* will take the place of *All-Mash Breeder*, *All-Mash Breeder Pellets*, *Breeder Mash* and *Breeder Mash Pellets*. The present breeder mashes and pellets will continue to be available until February 3, 1943, which will give each breeder ample time to change to the improved program.

Eastern States poultrymen can now have the convenience of feeding their favorite market egg ration throughout the year, and easily convert it into a breeder ration when needed. *Breeder Concentrate* will be available only in pellet form. This new method of handling the flock during the months they are producing hatching eggs has been tested at Westbrook and proved satisfactory from all practical angles.

*Breeder Concentrate Pellets* makes use of some recent experiment station research in order to meet more completely

the vitamin requirements for high hatchability. Meeting these added vitamin requirements accounts for the slight increase in cost of the final combination compared with present breeder mashes.

Three weeks before hatching eggs are to be saved, feed each day late in the afternoon seven pounds per 100 breeders, or slightly over one ounce per hen, of *Breeder Concentrate Pellets*. Continue the market egg ration as fed in the past. For example, if the total feed requirements

Table Demonstrating Method of Feeding Breeder Concentrate Pellets

SYSTEM OF FEEDING	CONCENTRATE PELLETS	PRODUCTION MASH	SCRATCH	TOTAL FEED INTAKE
All Mash	7 pounds Breeder Concentrate	25 pounds All-Mash Egg	None	32 pounds
Mash and Scratch	7 pounds Breeder Concentrate	12½ pounds Egg Mash	12½ pounds Scratch	32 pounds
* Hen Supplement and Homegrown Grains	7 pounds Breeder Concentrate	6 pounds * Hen Supplement	19 pounds Homegrown Grains	32 pounds
* Hen Supplement available only in Pennsylvania, Delaware, Maryland and Maine.	Above figures remain same regardless of feed intake.	Above figures will vary up or down according to production. They apply to a pen of 100 heavy birds laying 70 percent. For suggested application to Leghorns and various rates of production, see Eastern States Feed Consumption Guide.		

**COOPERATIVE POULTRY FEED SERVICE**  
**EASTERN STATES FARMERS' EXCHANGE**



## Basis of Merit in Eastern States Vegetable Seeds

Good seed is the first fundamental of successful gardening. The most careful grower cannot succeed with poor seed even though he gives close attention to all the other factors of production. The ability of seed to produce a satisfactory and desirable crop cannot be determined by the appearance of the seed. It is for this reason that the *selective cooperative* service of the Exchange is of real assistance to vegetable growers whether they operate in their back yards or on a market gardening basis. *Eastern States seed* is seed of known performance. The parentage and past performance of a seed stock are the indexes the Exchange relies on in appraising future crop producing power.

☆ **Selection:** To make this program effective, the Plant Industry Project of the Exchange, through extensive trials at Feeding Hills, Massachusetts, and at other points in vegetable areas, tests seed stocks for distribution.

Every lot of vegetable seed distributed by the Exchange is included in these trials. Adaptation, trueness to type, productivity, and resistance to or freedom from disease are carefully studied. Varieties or strains must prove their worth before they are made available to Eastern States members.

☆ **Breeding:** In conjunction with the trial work, plant breeding work is also constantly in progress for the improvement of present varieties and the creation of new and better ones. The purpose of all this careful work is to determine and make available the best "consumer values" in seed. This *value* is measured in terms of *dependable performance* in the field, in the markets, and on the consumer's table.

☆ **Production:** The seed for distribution is procured by multiplying our own foundation stock seed and by purchases from sources of proven merit. The area of production is selected for its ability to produce

economically high quality seed, as free as possible from disease.

☆ **Seed Treatment:** Certain diseases are carried on or in the seed and can be controlled by specific treatments. Seed for which an effective treatment has been demonstrated is so treated at the seed warehouse before shipment, where the chemicals can be properly and economically applied.

Seed so treated should not be soaked before planting, as germination may be materially injured.

☆ **Description:** Every lot of seed distributed will show a report of the germination, the date of test and a lot number. The lot number is a code reference to our records of the history, performance and production of that particular lot. Correspondence pertaining to the performance of *Eastern States seed* should include the specific lot number of the seed under consideration to aid investigation.



*Save the package or the tag on your Eastern States vegetable seed. Refer to the lot number when you write for further information.*

For the sake of uniformity in describing the comparative earliness, size, and other characteristics of varieties, several years' records from the Eastern States testing grounds at Feeding Hills, Massachusetts, have been used.

"Days to grow" indicates the relative earliness of varieties from seed to crop, and for kinds ordinarily transplanted, from field setting to market crop.

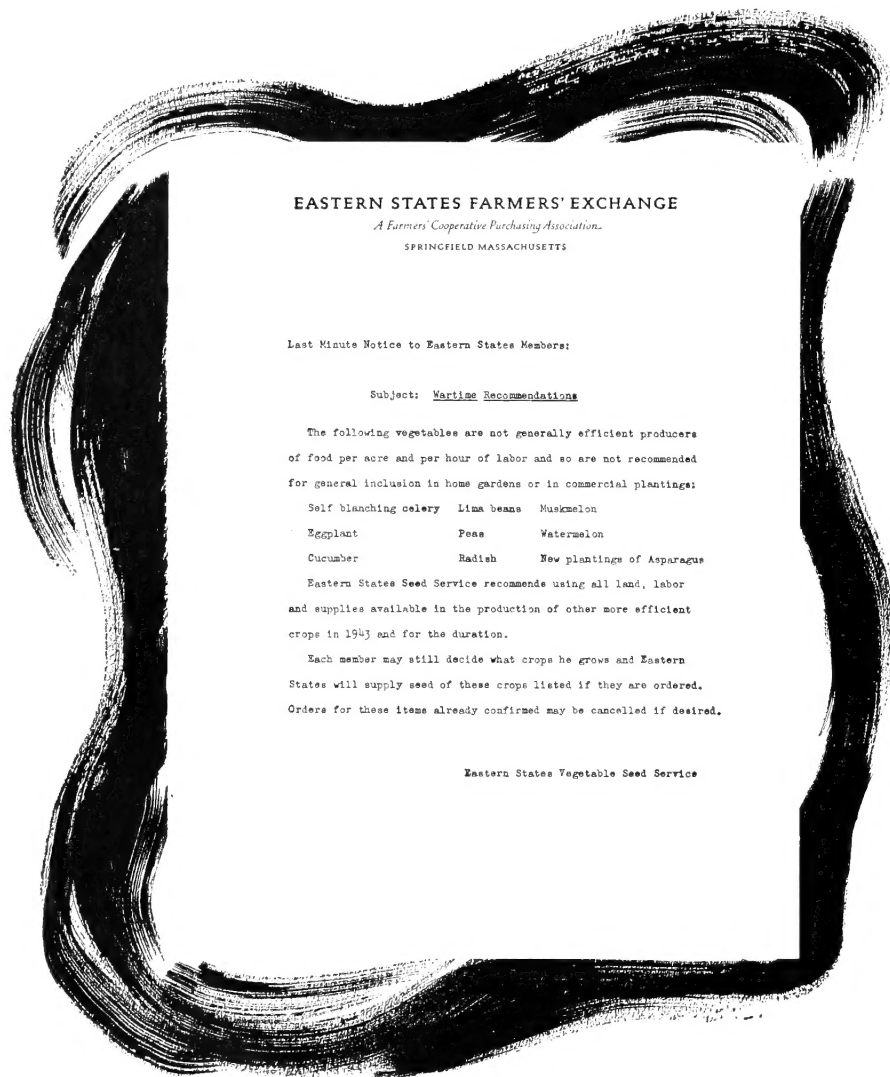
The number of days required by any particular variety to produce a crop will vary from place to place and from year to year, depending upon soil and seasonal conditions. Also characters of growth will vary. For instance, a particular variety of corn will normally grow a taller stalk the farther north it is grown and a shorter stalk the farther south it is grown.

☆ **Never be rough with seed.** The careful handling of certain vegetable seeds in every handling operation is exceedingly important to assure successful stands in the field. The Eastern States Farmers' Exchange has exercised every possible precaution in the harvesting, cleaning and shipping of such seed, fully realizing the extreme danger to germination from rough handling.

This precaution applies particularly to the larger seeds such as peas and beans which have paired cotyledons with dry, brittle embryos. Dropping a bag or walking on one may reduce germination of its contents as much as 10 percent or more by cracking the seed internally, yet you may see little or no evidence of physical damage.

Likewise, the seed of beets and chard will crumble very readily. This injury breaks up the seed clusters and increases the loose hull accumulation which interferes with uniform seeding.

# Description of Eastern States Vegetable Varieties and Brief Cultural Suggestions



## EASTERN STATES FARMERS' EXCHANGE

*A Farmers' Cooperative Purchasing Association.*  
SPRINGFIELD MASSACHUSETTS

Last Minute Notice to Eastern States Members:

Subject: Wartime Recommendations

The following vegetables are not generally efficient producers of food per acre and per hour of labor and so are not recommended for general inclusion in home gardens or in commercial plantings:

Self blanching celery	Lima beans	Muskmelon
Eggplant	Peas	Watermelon
Cucumber	Radish	New plantings of Asparagus

Eastern States Seed Service recommends using all land, labor and supplies available in the production of other more efficient crops in 1943 and for the duration.

Each member may still decide what crops he grows and Eastern States will supply seed of these crops listed if they are ordered. Orders for these items already confirmed may be cancelled if desired.

Eastern States Vegetable Seed Service

uniformity. The pods are dark green, round in cross section, practically straight and smooth. The flesh is brittle, absolutely stringless and without fiber or parchment. Seed solid yellowish-brown.

**Stringless Tendergreen** — The plant is large, erect and compact, producing heavily over a short season. The pods are dark green, nearly round, slightly curved, and smooth. The flesh is brittle, stringless and without fiber. Seed brown, blotched with light fawn.

### BUSH WAX SNAP

**Pencil Pod Wax** — The plant is large and very productive over a long period. The pods are curved and fleshy without strings. The flesh is golden yellow and of the highest quality. It is one of the most dependable wax beans. Black seed.

**Brittle Wax** — The plant is large, erect and moderately productive over a long period. The pods are slightly curved, brittle and succulent, without string, fiber, or parchment. Used extensively for canning, as the seed is light-colored and develops slowly. White seed with very dark brown to black broken-ring eye marking.

**Sure Crop Wax** — Large, vigorous, spreading plant, productive over a long period. The pods are dull yellow, flat but fleshy, brittle, stringless and with very little fiber. Black seed.

### *Bean Culture — Bush Wax and Green Snap — French's Horticultural*

Plant after danger of frost in a fertile, well-drained, mellow soil, 1" deep, 4" apart in 2½ to 3' rows, using ½ lb. of seed to 100' of row (60 to 80 lbs. per acre). For continuous harvest, plant every 2 or 3 weeks to July 1 or later depending on locality, allowing sufficient time for maturity before frost.

Seed must not be placed in contact with fertilizer. Burning will result.

### BUSH SHELL OR FIELD

**French's Horticultural** — The plant is erect with short runners and very prolific. As a shell bean the pods are heavily splashed with deep carmine with large plump seeds. This variety is also used as a dry field bean. Seed pinkish-buff splashed with deep carmine.

**Maine Yellow Eye** — A high quality baking bean, popular in New England. The plant is of the short runner type. The beans are medium size, solid white with brownish-ochre markings around the eye, covering about ¼ of the bean. Matures uniformly, dropping its leaves at maturity, making them easy to cure in small loose ricks.

**Lapin Marrow** — No seed available for 1943.

**Geneva Red Kidney** — A disease resistant productive variety. The dry beans are used for baking and are of excellent quality, dry and mealy. Seed reddish-brown in color and kidney-shaped.

## BEANS

### BUSH GREEN SNAP

**Stringless Valentine** — An improved form of Black Valentine that is stringless. The pods are oval in cross section, dark green, nearly straight and of fine quality. The pods hold their color and texture well for distant shipment. The plant is large, erect and prolific. Black seed.

**Bountiful** — The plant is large, erect and prolific. The pods are flat, light green, slightly curved, brittle, stringless, slightly fibrous, but remain edible till fully grown. It is a good shipper. Seed yellow straw color.

**Stringless Green Pod** — The plants are erect, vigorous and mature with considerable

### Bean Culture — Bush Shell or Field

Plant after danger of frost in a fertile, well-drained, mellow soil, 1" deep, 4" apart in 2 to 3' rows, using ½ lb. of seed per 100' row (60 to 90 lbs. per acre).

Seed must not be placed in contact with fertilizer. Burning will result.

### BUSH LIMA

**Fordhook** — The plant is large, upright, vigorous and very productive. Pods contain three to four large, plump seeds of the potato lima type. Dry beans are white with a tinge of green.

### Bean Culture — Bush Lima

Plant after danger of frost in a warm, fertile, well-drained, mellow soil, 1" deep, 4" apart in 3 to 3½' rows, using 1 lb. of seed per 100' row (95 to 110 lbs. per acre).

Encourage quick germination and rapid seedling emergence by shallow planting in a warm, well-drained soil to overcome rhizoctonia and other soil-borne organisms frequently responsible for a poor stand.

Seed must not be placed in contact with fertilizer. Burning will result.

### POLE LIMA

**King of Garden** — The plant is tall, a good climber, vigorous and highly productive over a long period. Pods contain four to five beans. Seeds are large, flat, white, fleshy and of excellent quality.

### POLE SNAP

**Kentucky Wonder** — Has a distinctive beany flavor of high quality. The pods are fleshy but not attractive, because they are irregularly curved with constrictions between the seed. Seed buff-brown with indistinct vein pattern of darker shade.

### Bean Culture — Pole Lima and Pole Snap

Plant after danger of frost in a warm, fertile, well-drained, mellow soil, dropping 3 to 5 seeds 1½" deep per hill, 4 x 4' apart. Use 8 to 9' poles set 2 to 3' in the ground and well-braced. Where seed is dropped 4" apart in 4 to 5' rows, a trellis may be built with well-braced end poles and intermediate supporting poles every 12 to 16' apart. Stretch top, middle and bottom horizontal wires and attach vertical strings such as binder twine every 8" to 12" apart.

Encourage quick germination and rapid seedling emergence by a shallow planting in a warm, well-drained soil to overcome rhizoctonia and other soil-borne organisms which are frequently responsible for a poor stand.

Seed must not be placed in contact with fertilizer. Burning will result.

**Soybeans** — The soybean is one of the most nutritious and healthful of all foods. It is high in protein, fat, several vitamins, and a wide variety of amino acids. It is relatively low in starch and sugar, of which most diets contain too great a proportion. It therefore definitely improves the ordinary diet. It has been a substantial part of the diet in Oriental countries for hundreds of years but has until recently been grown only for animal feeding in America. The flavor and texture is unlike other kinds of beans with which the Occidental palate is

familiar; so from among the hundreds of varieties available those most palatable to us must be chosen.

### Varieties

Two varieties which the research work of the Eastern States seed service has selected as having superior merit for Eastern States members are:

**Giant Green** — A large-leaved, large-seeded variety of relative early maturity. When planted June 1 the beans should be ready to eat green in about 90 days or about September 1. The plant grows about 18 to 24" high and is rather coarse and woody. The pods are grayish-yellow turning black at complete maturity at which time the 2 or 3 green beans in each pod shatter out very readily.

**Chusei** — This requires about two weeks longer for growth than does Giant Green so if planted June 1 cannot be expected to be ready for eating green until September 15 and not for shelling as dry beans until after October 1. The plants grow 24 to 30" tall but the leaves are smaller and of a more yellow color than those of Giant Green. The stems are more slender, the beans and pods smaller but borne more profusely, giving a higher total yield. The mature beans do not shatter as readily as do those of Giant Green.

### Cultural Suggestions

Plant about June 1 and after soil is well warmed, about one inch deep and three inches apart in 2' rows. Proper inoculation is desirable for soybeans but when impractical to apply on small lots they will make entirely satisfactory growth if nitrogen is supplied in a regular garden fertilizer at the same rate as for other garden crops.

*Rabbits are extremely fond of soybean foliage and if any rabbits are in the neighborhood the soybeans should be protected by a fence.*

Harvest as a green vegetable when the beans are well formed but the pods are still green. For shell beans allow pods to ripen and become at least partially dry on the standing stalk.

### Uses and Methods of Preparation

**Green Beans** — Cook green beans immediately after being harvested. The fibrous pod cannot be eaten but the green beans can be either cooked in the pod and shelled later or

they can be shelled and then cooked. To facilitate shelling, blanch the pods in boiling water for five minutes, drain and cool with cold water sufficiently to be handled. Cook the shelled beans in a small amount of salted water for 10 minutes after boiling starts.

**Boiled Beans** — Dry soybeans swell and cook to a tender condition even more readily than do other kinds of beans, but when they have reached the maximum degree of softness, are rather nut-like in texture and not "mushy" like navy beans.

To get best color, volume and flavor soak in clear water overnight. Drain and cook in salted water for 75 minutes.

**Baked Beans** — Soybeans may be baked the same as navy beans, boiling as suggested above and baking slowly for three or four hours.

**Roasted Soybeans** — Soak 2 cupfuls of dried beans for about 12 hours in one quart of water to which has been added one heaping teaspoonful of salt. Cook just below the boiling point for one half hour in the water in which they soaked; then roast in oven or corn popper to a light brown color.

**Other Uses** — Soybeans can also be used for puree of soup, croquettes, soybean chili, salads and many other tasty, nutritious dishes.

## BEETS

### TABLE

**Crosby Early Wonder** — Roots are semi-globular, blood red with a small tap root. The flesh is blood red with zones of slightly lighter shade. The tops are dark green tinged with red, of medium height, and erect.

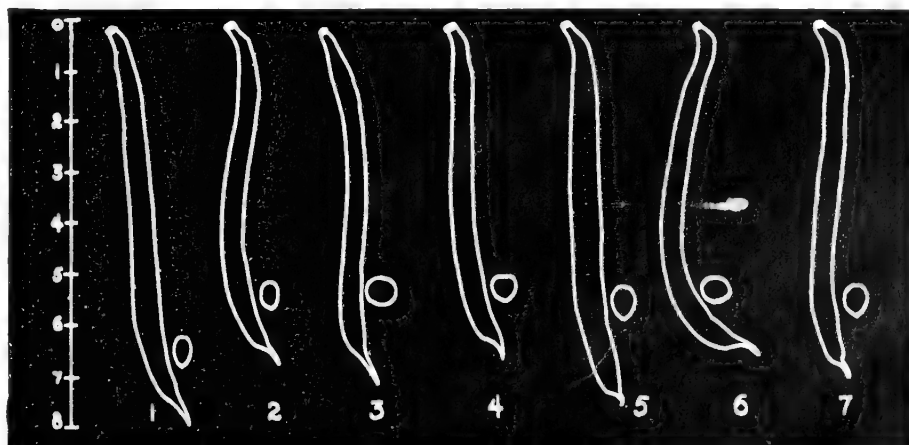
**Detroit** — The root is globe-shaped with dark red flesh, and the zones of slightly lighter color are indistinct. The tops are dark green tinged with red. A high quality beet for market, canning, or storage.

### Beet Culture — Table Beets

One ounce of seed plants 100' of row — 10 lbs. per acre. Sow as early as a fertile, well-drained, mellow soil can be prepared, dropping seeds ½" apart, ½" deep in 12" to 18" rows. Thin seedlings to stand 1½" to 3" apart and use thinnings as greens. For continuous harvest, plant every 2 to 3 weeks to August 1.



Want to compare the pod side, shape or cross-section of Eastern States bean varieties? They are: (1) *Bountiful*, (2) *Stringless Valentine*, (3) *Stringless Green Pod*, (4) *Stringless Tendergreen*, (5) *Sure Crop Wax*, (6) *Pencil Pod Wax*, (7) *Brittle Wax*





In fashionable eateries broccoli is dished up with Hollandaise sauce at a buck-and-a-half a sprig — you can grow and eat it for a penny a potful!

## BROCCOLI

**Calabrese** — This vegetable should be much more widely used in home gardens. The edible heads are very high in vitamins A, C and G. A dozen plants set early in the spring will yield sufficient of this popular delicacy for a family of four until freezing in the fall. After the central green head is removed, a number of smaller heads are produced on stems 4 or 5" long, continuing to produce in this manner throughout the summer if kept cut and adequately fertilized; or seed may be sown in June or plants set in late July for harvest in September and October. Plants grow 3 to 4' in height and become much branched.

Broccoli is prepared for the table similarly to asparagus or cauliflower, cooking only until tender (3 to 5 minutes), thereby retaining the bright green color, full flavor and high food value.

### Broccoli Culture

For an early crop, sow in sterilized soil under glass (8 to 10 seeds per inch in 2" rows) from February 15 to March 15. Transplant into 2½" pots or 2½" x 2½" apart in flats when first true leaves appear. After danger of hard frosts, the plants should be hardened by gradual exposure and set outside 2 by 3' apart in a fertile, well-drained, mellow soil. For a late crop, sow in June outdoors, transplant in 5 to 6 weeks or thin to stand 2 x 3' apart. Side-dressings of nitrogen may be advisable during the season.

## Brussels Sprouts

**Long Island Improved** — The delicate, distinctive flavor of this vegetable is relished by most people who know it, and this improved strain is easy to grow into a productive and satisfying crop. It should be grown for late season harvest, the seeds being sown in a well-prepared seedbed from May 15 to June 15 — 2½ oz. producing enough plants for 1 acre — and the plants set out like cabbage in 5 or 6 weeks 24" apart in 36" rows. The small cabbage-like buds about 1½" in diameter which form in the leaf axils are harvested suc-

cessively starting at the bottom of the stalk and working upward. Sprouts are of better quality after having been frozen, so harvest may be continued well through November even in the North.

## CABBAGE

### EARLY VARIETIES

**Golden Acre** — An early uniform strain of Copenhagen Market. Plants are compact and of medium size. Heads are slightly flattened, solid, globe-shaped and of excellent quality. This variety is suitable for successive plantings to midsummer.

**Yellows Resistant Golden Acre** — This strain resembles very closely the best stocks of Golden Acre in size and uniformity, but is 2 to 3 days later. It has been selected for resistance to cabbage yellows and will produce crops on soils heavily infected with the disease. Use standard varieties unless the soil is known to be infected with cabbage yellows.

**Marion Market** — A yellows resistant variety of Copenhagen Market type, in season with late strains of Copenhagen. Plants large, leafy, producing oval heads weighing 5-7 lbs. Useful as a midseason variety.

### Cabbage Culture — Smooth Green: Early and Midseason Varieties

One-quarter ounce of seed plants 100' of row — 4 ozs. per acre. For early harvest, sow in flats under glass (8 to 10 seeds per inch in 2" rows) from February 15 to March 15. Transplant once in flats 2" by 2" when first true leaves appear. Avoid crowding, drying out or overwatering. Control temperatures at about 65° F. and provide ample ventilation. Harden off by gradual exposure and withhold watering a week or 10 days before setting in the field. Soak thoroughly just before transplanting. Set outside 14" to 18" by 24" apart as soon as ground can be prepared after danger of hard frosts. When transplanting, the field soil should be slightly richer than the soil in which the seedling plants were grown. For later harvest, sow at 2-week intervals, 5 to 6 weeks before trans-

planting in the field. Side-dressings of nitrogen may be profitable if growth is slow.

### LATE VARIETIES

**Short Stem Ballhead** — A strain of Danish Ballhead or Hollander used for kraut or winter storage. Plants are of medium size with short stems. The heads are round and very solid. No seed available for 1943.

**Penn State Ballhead** — A uniform, high yielding variety, developed by Dr. C. E. Myers of the Pennsylvania State College. Plants are of medium size with short stems. The heads are flattened, globe-shaped and very solid. A good variety for kraut or winter storage.

**Yellows Resistant Wisconsin No. 8** — A strain of Ballhead type selected for resistance to cabbage yellows. It is a leafy, medium stem type, producing globe-shaped heads. A late variety for winter storage. Use standard varieties unless the soil is known to be infected with cabbage yellows.

### CABBAGE SPECIALTIES

**Drumhead Savoy** — The plants are medium large, producing deep rounded heads, and moderately solid. This variety is admired for its crumpled, dark bluish-green leaves and creamy white interior. The flavor and quality are distinctive and it stores well.

**Mammoth Rock Red** — A purplish-red variety used mainly for pickling and salads. The plants are of medium size with a short stem; the heads are oval and solid. Distinctly a cabbage for special markets.

### Cabbage Culture — Smooth Green: Late Varieties and Cabbage Specialties

Sow in outdoor seedbed, 4 seeds per inch in 12" rows in April or May. One ounce of seed plants 200' of row and should produce in excess of 2000 good plants — enough for one-fourth acre. Transplant 5 or 6 weeks later, 24" x 30" to 36" apart. The field soil should be somewhat more fertile than the seedbed.

### CHINESE or CELERY CABBAGE

This vegetable makes a splendid addition to the late fall garden. Its flavor is somewhat like



Talk of cabbages and kings — well, a lot of gardeners would say *Golden Acre* is a cabbage fit for the king.



that of cabbage but much milder and more delicate. It can be eaten either raw or cooked in nearly any of the ways practiced for cabbage or lettuce. It is delicious when eaten as slaw or salad. The leaves may be cooked as cabbage or like spinach or the mid-rib alone used and served more like asparagus.

About 25' of row is suggested for a family of four.

**Chihli** — The outstanding variety. It is tall and sure-heading. The outer dark green leaves enclose a long, 18" tapering head which when mature is very compact, white, tinted with green, crisp and sweet.

#### Chinese Cabbage Culture

Grown chiefly as a fall crop, for if grown in summer the plant will likely go to seed before heading. Sow seed in July in 18" to 24" rows. Use  $\frac{1}{8}$  oz. per 100' of row or 4 oz. per acre. When plants are not over 2" high thin to about 15". Soil must be fertile. If plants are started in a seedbed, transplant when quite small — about 4 weeks after the seed is sown.

A rich soil that is retentive of moisture and in good physical condition is necessary; side-dressing of nitrogen may be necessary if growth is slow.

## CARROTS

**Chantenay (Red Cored)** — A red-cored variety, productive and of good quality. Roots are 5½" long and 2-2½" in diameter at the crown, tapering to 1-1½" with a blunt bottom which tapers to a decided rat tail. The crown is small and slightly sunken. Generally used as an early bunching carrot.

**Nantes Long** — A rapid-growing variety practically coreless and of the highest quality flavor and texture. The root is 6½" to 7" long and 1" to 1½" in diameter, cylindrical and distinctly stump-rooted. The tops are small and must be handled carefully to avoid breaking.

**Imperator** — Roots are 7-8½" long, 1¾-2" at shoulder and uniformly tapered to a semi-blunt end. The flesh is a rich orange color, fine grained, tender and of excellent color and the core is indistinct. The tops are of medium size and strong. Suitable for bunching or storage. Partially resistant to *Cercospora* leaf spot. Definitely coarser, but more sure of a satisfactory crop than Bunching.

**Bunching** — A carrot well adapted for bunching for long distance shipping. The roots are 8" long and 1¼-1½" in diameter, nearly cylindrical with rounded shoulders and stump-rooted. The root is smooth and nearly free from hair roots and side root scars. The tops are short but strong. Well grown on good soils, this variety suits quality markets. Susceptible to *Cercospora* leaf spot.

**Danvers Red Cored** — A half long, late variety of exceptional quality adapted to fall use or winter storage. Roots are 7-7½" long and somewhat stump-rooted. The crown is full, 2-2½" in diameter. Flesh is bright orange-scarlet. Tops are medium large.

**Hutchinson** — No seed available.

#### Carrot Culture

Sow after April 15, and for continuous harvest, successively every 3 weeks until July 15

in a deeply-loosened, well-prepared seedbed.

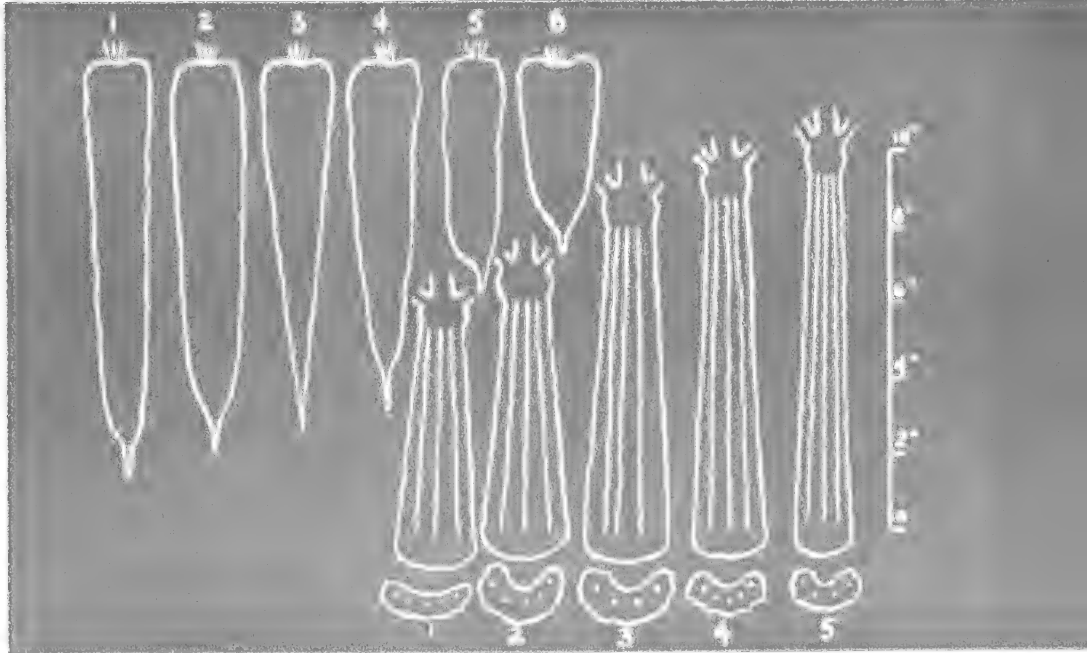
Sow  $\frac{1}{4}$  oz. of seed per 100' of row or 2 to 4 lbs. per acre,  $\frac{1}{4}$  inch deep in rows 12" to 15" apart. Thin seedlings to stand 1-2" apart.

## CAULIFLOWER

**Super Snowball** — A deep-headed strain that is more spreading than usual and gives better protection to the head, but requires tying. Best suited for early season planting for a

white curd is compact and solid. Trim outer leaves to extend slightly beyond the curd for protection in handling and shipping. Side-dressings of nitrogen may be necessary if growth is slow. Set plants 20" by 3' apart.

Hollow stalks and browning of the curd, with or without an unthrifty condition of the plants, may indicate boron deficiency in the soil. If such conditions are found, consult your county agent or the Eastern States Farmers' Exchange fertilizer department for recommended treatment.



The floorplans of the CARROTS are — (1) *Hutchinson*, (2) *Bunching*, (3) *Imperator*, (4) *Danvers Red Cored*, (5) *Nantes Long*, (6) *Chantenay* . . . and the CELERY — (1) *Golden Plume (Calif.)*, (2) *Emperor*, (3) *Tall Fordhook*, (4) *Giant Pascal*, (5) *Golden Plume (Jer.)*.

crop in late June to early September. Ready for harvest about 65 days after transplanting. Heads usually 6-7" in diameter, rather spongy and will wither if held long after cutting. It should not be used to compete with later, more solid varieties in late fall.

**Danish Early** — A sure-heading strain of Snowball variety suitable for a main crop in the fall maturing about 75 days after transplanting. Plant is small and compact. Heads are well protected but require tying.

**Holland Erfurt** — A sure-heading, long-standing strain of Snowball variety very desirable for a late fall crop, able to withstand heavy frosts without injury. Plants are erect with folding inner leaves giving protection to the very deep, compact, pure white heads 6-7" in diameter, which mature over a relatively long cutting period.

#### Cauliflower Culture

For an early crop, sow inside from February 15 to March 15. Harden off and set outside as soon as ground can be prepared after danger of hard frosts.

For late harvest, sow the seed about the middle of May, transplant into the field about July 1. As soon as heads begin to form, draw the leaves over and tie them together for protection against sun and rain and to afford perfect bleaching conditions. Cut heads while the

## CELERY

### YELLOW CELERY

**Golden Plume (California)** — An early, stocky, compact strain adapted to forcing or early field culture. Plants are short to medium height, having an exceptionally full bulging heart which blanches readily with paper or boards to a creamy yellow color. Stalks are short, 6" to first joint, broad but thick, brittle, of fine texture and reasonably free from stringiness.

**Golden Plume (Jersey)** — A strain selected for long thick stalks, a full bulging heart and resistance to blight. Plants are of intermediate height, taller than Golden Plume (California), but not so rangy as Golden Self-Blanching. Stalks are heavy, thick to round, crisp and reasonably free from stringiness, measuring 9" to the first joint. It can be used for forcing, early or late field culture and stores well. Easily blanched with paper or boards and has a rich nutty flavor.

#### Yellow Celery Culture

For early plants sow in February under glass,  $\frac{1}{8}$  oz. of seed per 100 feet,  $\frac{1}{8}$ " deep in 2" rows in fine, moist, sterilized soil. In 4 or 5 weeks when plants are 1½" to 2" high they may be transplanted 2" apart.

After danger of frost or prolonged low temperature, harden plants and set in the field 4' to 6' apart in 2 to 4' rows. About 2 ozs. of seed are needed for plants for 1 acre.

For late plants sow seed outdoors in April  $\frac{1}{4}$  oz. per 100' in 1' rows. Transplant to production field in July. Four ounces of seed are needed for plants for one acre. When celery is full grown, blanch with boards, earth or paper.

A brownish cross-wise cracking on the stalks, and curling back of the broken fibers, may indicate boron deficiency in the soil. If such conditions are found, consult your county agent or the Eastern States Farmers' Exchange fertilizer department for recommended treatment.

### GREEN CELERY

**Fordhook Emperor (Houser)** — Plants are 20-22" tall, dark green, with 6-7" stalks which are very thick, smooth and meaty. Blanches slowly to a pale cream color under paper or cuffs. This variety has exceptional table quality but must be handled very carefully as it is crisp and brittle.

**Tall Fordhook** — This variety is earlier than either Fordhook or Pascal. The plants are large with stalks 8 to 9' to the first joint; smooth and meaty with a full heart. It blanches easily to a light cream color. Nor so brittle as Fordhook Emperor and more erect.

**Giant Pascal (California)** — This high quality green celery is ideal for fall and winter use. The plant is compact, stocky, full-hearted and heavy. Stalks are 8"-9", thick to round, without stringiness and have the typical nutty Pascal flavor. It should be partially bleached with banked soil before placing in cold storage or pitted for winter.

#### Green Celery Culture

One-quarter ounce of seed plants 100' of row — 4 ozs. per acre. Sow seed outdoors about May 1 and transplant to field July 1 to 15. The soil should be deep and thoroughly prepared, and, if necessary, make side-dressings of available nitrogen fertilizer. When celery is fully grown, blanch with boards, earth or paper.

## CHARD

Chard is a member of the same family as beets but has been developed for its foliage rather than for an enlarged root. It is most used as greens but the mid-ribs may also be cooked as asparagus or creamed celery. It ranks high among vegetables in content of vitamins, calcium and iron.

Twenty-five feet of row will supply adequately a family of 4 from early summer to freezing weather of fall.

### SWISS-SAVOYED

**Fordhook Giant** — The heavy crumpled or savoyed leaves are dark green with a large white succulent stalk. The leaves are used for greens and the thick stalks are used for pickling or soup stock.

**Lucullus** — The heavily-crumpled or savoyed



Easy to grow and easy to eat as "greens" is Swiss chard.

leaves are yellowish-green and the thick, broad succulent stalks are light green in color. Used for greens, pickling or soup stock.

#### Swiss Chard Culture

One-half ounce of seed plants 100' of row — 4 to 6 lbs. per acre. Chard is easily grown. Plants may be started in greenhouse or hotbed and then transplanted to the open field or planted directly outdoors as soon as soil can be prepared in spring. Sow 2" apart,  $\frac{1}{2}$ " deep in rows 2' apart. Thin seedlings to stand 4" to 6" apart. By breaking off and using only the full-grown outside leaves, a continuous harvest may be enjoyed throughout the season.

## CORN

### HYBRID — MIXED YELLOW AND WHITE

**Sugar and Gold** — An extra early high quality sweet corn with a mixture of yellow and white kernels. It matures about 3 days ahead of Spancross 13.4 but is very susceptible to bacterial wilt so should only be grown north of Massachusetts, or for trial in western or central Pennsylvania or where bacterial wilt does not occur.

The stalk is rather slender, about 4' tall, with reddish foliage. The ear is 6-6 $\frac{1}{2}$ " long with 8 or 10 rows of tender sweet kernels, some yellow and some white. The husk is rather short and light. In areas where adapted it is a splendid corn for the first early planting in home gardens and for limited planting to supply the first few days of a market that will accept high quality in spite of mixed color kernels.

### HYBRID — YELLOW

**Early Golden (1.13)** — A new early high quality yellow hybrid introduced for trial last year and met with overwhelming favor. Amount of seed available for 1943 planting is still definitely limited. It matures only 1 or 2 days later than Spancross 13.4 and 2 or 3 days earlier than Marcross 13.6. It produces a slender but stiff and strong stalk about 5 $\frac{1}{2}$ ' tall with several tillers or suckers, many of which pro-

duce marketable ears of corn. A normal ear is about 7" long, 12-rowed and nearly cylindrical in shape with only a little taper toward the tip. The husk is medium long and heavy and the yellow kernels are sweet and tender making it a distinctly high quality corn unequalled among the earlier varieties. It is highly resistant to bacterial wilt and has performed well from northern Maine to southern Pennsylvania.

**Spancross (13.4)** — An extra early yellow hybrid developed by the Connecticut Agricultural Experiment Station. It is a cross between inbreds of Golden Early Market and Spanish Gold. It is resistant to bacterial wilt. It has a shorter ear than Marcross 13.6 but it is fully as thick. It is only suitable for the first planting since its quality is not high enough to compete with better later hybrids.

**Marcross (13.6)** — An early hybrid from a cross of the Whipple inbred Connecticut 6 on the Golden Early Market inbred Connecticut 13. It is the most resistant of the early hybrids to bacterial wilt. Ear quality good.

**Carmelcross (39.13)** — A hybrid from a cross between Purdue 39 (Golden Bantam inbred) and Connecticut 13 (inbred of Golden Early Market). Plants are uniform, moderately leafy, and highly resistant to bacterial wilt. Ears are large and have a thick tough husk that covers the tips well. Exceptional quality.

**Whipcross (27.6)** — A new second early yellow hybrid resulting from crossing two inbred strains of Whipple's Early Yellow, and essentially an improved Whipcross 6.2.

The stalk is exceptionally vigorous, averaging 6 $\frac{1}{2}$  to 7' tall and highly resistant to bacterial wilt. The ear is large — about 8 $\frac{1}{2}$ " long with mostly 12 rows of broad kernels and a heavy protective dark green husk. The eating quality is only fair and so is not especially recommended for home gardens or for markets where high quality is the primary consideration.

**Golden Cross Bantam** — A hybrid from a cross of two inbreds of Golden Bantam (Purdue 51 on 39). Very resistant to bacterial wilt, very productive and of exceptional quality and flavor. It is uniform in growth and maturity and is especially adapted to canning or market. The ears are cylindrical with good husk cover affording considerable protection against ear worms. Plants are dark green and leafy.

### OPEN POLLINATED YELLOW

**Golden Bantam** — A standard variety with cylindrical slender ears of high quality. The plant tillers (suckers) freely. It is susceptible to bacterial wilt.

**Whipple's Early Yellow** — A mid-early variety with large thick ears of good quality. The plants are tall and tiller freely. Susceptible to bacterial wilt.

**Bantam Evergreen** — A high quality corn for midseason or late. A selection from a cross of Golden Bantam and Stowell's Evergreen. It has the Evergreen type of ear, with deep yellow kernels of high quality. Plants are large and vigorous.

## OPEN POLLINATED WHITE

**Lancaster 8-Row** — This variety of open-pollinated sweet corn is well known and extensively planted in southeastern and south central Pennsylvania and is being added to the Eastern States list as definitely a specialty item for that area. It requires a very long season, following Stowell's Evergreen in maturity by nearly a week. The plants are large and vigorous with several ears on each stalk. So although the ears are not large — commonly 6 to 8" long and with 8 or 10 rows of kernels — there is a high yield per acre. The kernels are white, tender and watery sweet in flavor. It is also known as Money Maker, Aunt Mary's corn and by other local names.

**Stowell's Evergreen** — A variety since 1860 noted for its quality as a late table and canning corn. The plants are tall and vigorous and are resistant to bacterial wilt.

### Sweet Corn Culture

Four ozs. of seed plants 200' of row — 10 to 12 lbs. per acre. Plant after danger of hard frost, 1" deep, 8" apart in 30" to 36" rows. When planting in hills, drop 4 to 5 seeds 30" apart and thin to 3 main stalks. For succession harvest, plant at weekly intervals or use preferably later maturing varieties.

## POP CORN

**Early Golden** — A very early pop corn producing golden yellow pointed kernels. Produces large tender kernels with a touch of yellow when popped. Susceptible to bacterial wilt. Only recommended for New England.

**College Sunburst** — A late yellow variety. Stalks are large and prolific. Ears are large.

Kernels are round, of a rich yellow color and noted for great expansion when popped. Not recommended for use north of Connecticut seacoast area.

### Pop Corn Culture

Four ozs. of seed plants 200' of row — 8 to 10 lbs. per acre. Plant after danger of hard frost, 1" deep, 8" apart in 30" to 36" rows. When planting in hills, drop 4 to 5 seeds 30" apart and thin to 3 main stalks. Never remove tillers (suckers) as they help to feed the plant. Their removal may reduce yield and will not hasten maturity.

Pop corn must have the right moisture content for proper popping. This can be determined by test. If too dry, moisten slightly and keep in normal outdoor atmosphere. If too moist, bring indoors to living room atmosphere. A few days may be necessary for the required adjustment.

## CUCUMBER

### PICKLING (BLACK SPINE)

**Association Pickling** — A highly desirable black spine pickling strain developed by the Michigan Experiment Station for the National Pickle Packers' Association. The plants are very prolific and the fruit is dark green, symmetrical and square-ended, suitable for pickling at any size.

**Chicago Pickling** — The most widely used variety particularly adapted for large pickles. The fruits are thick, uniform, medium-green and square-ended. The plants are very prolific.

## SLICING (WHITE SPINE)

**Straight 8** — An early variety producing cylindrical symmetrical smooth fruits well-rounded at the ends. When ready for use the color is deep green and the fruit is free from light tips and stripes. Highly productive.

**A & C Special** — A desirable market cucumber because of its uniform length, very dark green color and high productivity. The fruits taper at both ends, but have thick flesh with a small seed core.

### Cucumber Culture — Pickling and Slicing

One-half oz. of seed plants 100' of row — 2 to 3 lbs. per acre. Plant after danger of frost is over and up to the middle of June in rows 5' apart; or in hills 5 x 5', 5 seeds to a hill. Plant 1½" deep.

## DANDELION

**Arlington Broad Leaf** — A highly desirable variety, especially adapted for early forcing. Plants are upright, forming a rosette of large broad leaves 20" across. The leaves are thick and easily blanched.

### Dandelion Culture

One-half ounce of seed plants 100' of row — 5 to 6 lbs. per acre. Sow in a well-prepared seedbed during August for harvest the following spring. Earlier planting can be made for early winter forcing under sash. Sow the seed ¼" deep in rows 12"-18" apart. Thin seedlings to 2"-3" apart. Cover with sash in January to force. The leaves will be of better quality if tied up for blanching very early in spring.

## EGGPLANT

**New Hampshire Hybrid** — A distinct early type, originated by Professor J. R. Hepler of the University of New Hampshire from a cross between Early Dwarf Purple and Black Beauty and selected by him through five generations for earliness, size, and color. The plant is 20" to 24" high, spreading, with small green serrate leaves; fruit is glossy, deep purple and only slightly smaller than Black Beauty and of the same shape. It is generally reported to be two weeks or more earlier than Black Beauty and New York Improved.

This variety was entered by Professor Hepler in the 1938 All-American Trials and received a silver medal.

**Black Beauty** — A standard variety of eggplant 2½' to 3' tall with an equal spread. Fruits are large, egg-shaped, 6" to 8" long, dark purple and remain firm long after picking.

### Eggplant Culture

Eggplant is a hot-season crop. Sow inside after March 1, one seed per inch of row — ¼ oz. per 100'. Maintain temperature of 65° to 75° F. Transplant at least once, preferably into individual containers. One ounce of seed should give 2000 plants — enough for ¼ to ½ acre. After May 20, when soil is thoroughly warm, transplant into the field 2' to 3' by 3' to 5'. Nearly neutral soils favor growth but diseases are usually less troublesome on more acid soils.



Painstaking selection of varieties, strains and sources is what makes Eastern States seeds so useful. Here's a picture made in a contract acreage of *Marcross 13.6* in Idaho. Carl Barnum of the Buffalo staff of the Exchange is the checker-up'er in the picture.



Use fruits as soon as they attain their full size and before the seeds develop.

## ENDIVE

**Full Heart Batavian** — A variety having broad, more or less twisted and waved leaves with thick white mid-ribs. The inner leaves form a fairly firm head which blanches to a creamy white and is crisp, tender and of fine flavor. Unsurpassed for salads.

**Green Curled Ruffec** — A curled or fringed-leaved variety, used principally as a late fall crop, although suitable for early spring culture. Plants are 16-18" in diameter, tufty and full in the center; the mid-rib is an inch broad, thick and tender. The heart blanches easily, is tender and of excellent quality.

### *Endive Culture*

One-half ounce of seed plants 100' of row — 4 to 5 lbs. per acre. For an early crop, sow about April 15 and for the late crop July 1 in fertile, moist soil, ½" deep in rows 20" apart.

Thin seedlings to 12" apart. When nearly mature, the heart is blanched usually by tying outer leaves together over the center. This should be done only when the plant is quite dry. Moisture in the heart starts decay.

## KALE

**Blue Scotch** — Bright bluish-green, finely crumpled leaf almost completely hiding the mid-rib, moderately hard, stand hard-freezes but seldom lives over a severe winter. Attain height of 20".

**Blue-Green Siberian** — Dull bluish-green color, coarsely crumpled with nearly flat mid-rib. Very hardy, will live over most winters.

### *Kale Culture*

One-fourth ounce of seed plants 100' of row — 2-3 pounds per acre. Sow July 1 to 15, ½" deep in 18-24" rows. Thin seedlings to 18" apart in the row. Two or more cuttings should be secured.

## KOHLRABI

This vegetable is deserving of a place in every home garden. It is a member of the cabbage family but is grown for its turnip-like enlargement of the stem just above ground. It can be grown in succession plantings from early spring to late fall but is not at its best during the hottest period of summer. Rapid growth and early harvest when the edible portion is no larger than a baseball produces the finest quality.

It is prepared for eating like turnip — peeled, diced and cooked until tender — or is delicious cut up raw in a garden salad. The flavor is somewhat like that of turnip but much milder and more delicate.

### *Kohlrabi Culture*

One-half ounce of seed plants 100' of row — 4 to 5 lbs. per acre. Sow in a fertile soil from

April 1 to August 15, ½" deep in rows 20" apart. Thin seedlings to 5" apart in the row.

## LETTUCE

**Black Seeded Simpson** — An early loose-leaved variety that can be used in the home when very small. The plant is hardy and vigorous, doing well in midsummer. The leaves are yellow-green, slightly frilled and crumpled, forming a compact bunch at the heart, which is crisp and tender.

**White Boston** — A good white-seeded butterhead variety. The leaves are light green and free from brown tint. The leaves are thick, smooth, the heart is buttery yellow and of excellent quality. It is especially adapted for home gardens and near-by markets. It is earlier than the iceberg types.

**New York 12** — A very important white-seeded, crisp head variety. It has dark green foliage, develops a large solid head, matures quickly and has good quality. It is being replaced somewhat by Imperial 847, which is somewhat more sure heading, although slower growing. New York 12 should still find a place because of its rapid growth for the first early spring crop.

**Imperial 44** — A strain of the "Iceberg" type developed by the U.S.D.A. and found by Cornell University to be well adapted to the northeastern United States. The plant is of medium size with heads slightly flattened and very solid. Somewhat subject to tip burn. This variety apparently needs a very uniform moisture supply and probably heavy fertilization.

**Imperial 847** — A lettuce of the "Iceberg" type selected by Dr. I. C. Jagger of the U.S.D.A. for summer and fall production. Very sure heading. Heads somewhat flat but solid and crisp. This variety in many locations shows in-

dications of being a more dependable cropper than New York 12, but is slower growing. Black-seeded.

**Great Lakes** — A most recent introduction by USDA and Michigan Experiment Station which is outstanding in its ability to head in midsummer, the seed stalks developing very slowly even under conditions of high temperature. The outer leaves are light grass green, large with waved edges, nearly flat blade, midvein thick and somewhat coarse. The heads are large, 6 to 7" in diameter and 5 to 6" high, extremely hard and solid weighing about 2 lbs. each. The inner leaves are crisp and brittle, tightly packed and white to pale green in color.

This variety is highly resistant to tipburn and bottom rot, but some loss may occur from aster yellows, the leaf hopper carriers of which are most numerous in midsummer.

This is the most promising variety so far developed for the successful production of summer head lettuce in Eastern States territory.

Orders for seed will be accepted subject to crop out-turn which should be known definitely by early May. Price announced at that time.

### *Lettuce Culture*

**Early Crop** — One pound of seed produces plants for one acre. Sow in greenhouse in early February. Transplant in 2-3 weeks to flats 2" x 2". Harden off and set in field as soon as danger of hard freeze is past, 12" to 18" apart in 12" to 15" rows.

**Later Crops** — One-half ounce of seed plants 200' of row — 2 lbs. per acre. As early as soil can be finely fitted sow ¼" deep in 12" to 15" rows. Thin seedlings to 12" to 18". For succession, sow at 2-week intervals to July 25. Field soil must be rich for good crop.

★ It takes a lot of fussin' around to tell how good a variety is — but when you see a lettuce patch like this planting of *Imperial 847* in the Exchange's trial grounds, you can risk saying, "Boys, there's a good lettuce."







★ To pick out good parents for your garden's onions is a nosy, knowsy job, eh, Boys? But that's one more of the careful preliminaries to Eastern States seed.

## MELONS

### MUSKMELON — SALMON FLESH

**Emerald Gem** — A good home and market garden variety but not a shipping melon. A two-pound globular melon slightly flattened, 4½" by 5½", ribbed, outer color green to yellow and slightly netted. The flesh is thick, salmon-colored, sweet and the seed cavity is very small.

**Honey Rock** — This nearly round, medium-size, 5½" by 6" melon weighs 4 to 5 pounds. The skin is gray-green and is covered with a coarse netting. The flesh is thick, orange-salmon in color and has a typical musky flavor. A home and market melon but not for long shipment.

**Hale's Best 112** — One of the best early market melons. Fruits oval, very slightly ribbed, and the hard rind is heavily netted, making it a good shipper and attractive in appearance. The flesh is very thick, sweet, free from stringiness and a rich deep salmon color. The seed cavity is small. Recommended for New England and northern Pennsylvania.

**Hale's Best 36** — One of the best early market melons. Fruits nearly spherical, slightly ribbed and have a heavily netted hard rind. The flesh is rich salmon color, thick, sweet, and free from fiber. A popular melon for shipping. Recommended for southern Pennsylvania, Delaware and Maryland.

**Hearts of Gold** — A very popular mid-season variety for home or market garden use. Fruits are practically round, 6" in diameter, weigh 4 pounds, distinctly ribbed and covered with a fine gray netting. Flesh is very thick, deep pink-salmon, tender and sweet, having a characteristic musky flavor.

**Bender's Surprise** — No seed available.

### *Muskmelon Culture*

One-half ounce of seed plants 100' of row — 2 to 3 lbs. per acre. For early forcing, start under glass in veneer bands or pots about April 1, develop slowly and transplant after hardening about May 1-15. Plant outdoors May 15 to June 1 either in rows or hills 1" deep. If in rows, make rows 5' apart and thin plants to 12" apart in the row. If in hills, make hills 4 x 6' apart, allowing 3 or 4 plants to the hill.

### WATERMELON

**Northern Sweet** — An early prolific variety for local markets introduced by the Minnesota Agricultural Experiment Station from Siberia. The fruits are small, 8-10 lbs., globular, dark green, striped with medium green. Rind is tough but thin. Flesh deep orange red, medium-grained and stringy when over-ripe. High sugar content. White seeds.

**Cole's Early** — An early melon of excellent quality, particularly adapted to the home garden. Fruits are exceptionally large for so early a variety, weighing 20 pounds, slightly oval with irregular mottled broad stripes of light and dark green. Flesh is pink-red, crisp and of good flavor. Seeds are black.

**Kleckley's Sweet** — A second early variety of medium to large size, weighing 30 pounds, oblong in shape and dark green in color. Rind is thin. Flesh is bright red, very sweet, firm, solid and of excellent quality. Seeds are white. Will not stand very rough treatment in shipping, but especially good for local markets and home use.

### *Watermelon Culture*

One ounce of seed plants 25 to 30 hills or

200' of row — 2 lbs. per acre. For early forcing start under glass in veneer bands or pots early in April, and about May 15 transplant into field 2' apart in 8' rows. Seed may be sown direct in the field after soil has become warm. Plant 1" deep in hills or rows. If in hills, plant 8 seeds 8' x 8', later gradually thinning to 3 or 4 vines per hill. If in rows space seeds 1' apart in 8' rows later thinning vines to 2'.

## ONION

### ONION SEED — YELLOW

**Ebenezer** — Seed of this variety is used extensively in growing sets which when planted the following spring produce an early crop. Early spring planting also gives marketable bulbs the same season. Bulbs are flat but deep, of medium size, dark yellow, very firm, mild, and with a thick skin.

**Early Yellow Globe** — An early, yellow variety, medium sized, spherical, firm and solid with tough clinging skins of a deep yellow color. The flavor is mild and the quality and texture good. It is a satisfactory storage onion.

**Yellow Globe Danvers** — A yellow variety that is a very popular storage onion. Bulbs are medium large, round, firm and solid. The flesh is white with a slight yellow tone.

**Utah Valencia** — A late yellow-skinned variety that is large and globular. The flesh is white, very mild and of pleasing flavor. A very good strain for winter storage, of the Sweet Spanish type.

### ONION SEED — WHITE

**Silverskin White Portugal** — Grown for white onion sets which produce an early market, white onion. Also used for small pickling onions and good for a late market onion from seed. Bulbs are medium-sized, thick flat, clear white, hard, fine-grained and of pleasing flavor. It is the most satisfactory white onion for the home garden because of its many uses.

### *Onion Culture*

One-half ounce of seed plants 100' of row — 4 to 5 lbs. per acre. Sow in field from April 1 to May 1, ½" deep in rows 20" apart. Thin seedlings to stand 4" apart. For producing transplants, sow seed in hotbeds or greenhouses January 15 to February 15, harden off and transplant seedlings to field about April 25.

## PARSLEY

**Paramount** — A long stem, dark green, moss-curl variety that is frost hardy and slow growing. It develops to full growth in 120 days but can be cut earlier.

**Plain Leaf Italian** — Leaves dark green, flat, deeply cut but not curled. Used chiefly for flavoring.

### *Parsley Culture*

One-half ounce plants 100' of row — 3 to 4 lbs. per acre. For early summer harvest, plant about April 1 and to winter-over with some protection, such as straw or sash, plant from August 1 to September 1. Sow in soil that is fertile, barely covering the seed in rows 12" apart. With a light seeding, no thinning should be necessary.

# PARSNIP

**Improved Hollow Crown** — The most popular variety of bright, smooth, white parsnip. Roots are 10"-12" long, 2½"-3" at the shoulder, hollow-crowned and uniformly tapered, carrying good thickness from crown to tip.

## Parsnip Culture

One-half ounce of seed plants 100' of row — 4 to 6 lbs. per acre. Sow seed in early spring ½" deep in rows 15" to 18" apart. Thin seedlings to stand 4" apart in row. Seed is very slow to germinate.

Soil should be well prepared and not over-balanced with nitrogen or the plants will tend to grow large tops but small roots.

**Hundredfold** — Pods dark green, and well filled with large peas of high sugar content. Due to habit of bearing pods double, this strain of the variety is especially productive.

**Gilbo** — An early strain in the Stride group with open type dwarf vines somewhat resistant to aphid attack. The pods are dark green, slightly curved with eight or nine large dark green peas. Resistant to fusarium wilt.

**Stride 40** — A popular strain of the Stride group, maturing in the same season as Alderman. Vines are dwarf, dark green, and open, somewhat resistant to aphid, with dark green, slightly curved pods containing 8 to 9 large dark green peas. Resistant to fusarium wilt.

**Alderman (Dark Telephone)** — The best of all tall, late peas for home and market gar-

## Pea Culture

Sow one pound of seed per 100' of row — 90 to 150 lbs. per acre — on fertile well-drained soil as early in the spring as soil can be worked. Place seeds 1" apart and cover with 1 to 2" of soil. Single rows should be about 3' apart. Some prefer planting twin rows 8 to 12" apart with 40" or more between pairs. Brush or wire can be put between the rows of each pair for support.

Thorough seedbed preparation, high fertility, early planting and weed control are essential for a good crop of peas. Fertilizer must not come in direct contact with the seed. Tall growing varieties must be supported by brush or wire and such supports makes harvesting of all varieties easier.

# PEPPERS

## SWEET

**Early Giant** — A sweet pepper of the bullnose type for home and market gardens. Plants are dwarf, upright and very productive. Fruits 4½" long and 3½" in diameter, are gently tapered, 3-lobed, of mild flavor, and deep green changing to bright red at maturity.

**Italian Sweet** — Earlier than some strains of Early Giant. Plants are medium green with medium size leaves. Fruits are conical, nearly straight, 5" to 6" long, 2½" wide at the shoulder with the stem insertion nearly flat, and borne pendant. Fruits are dark green, maturing to a deep red with a slightly roughened skin which is not glossy. The flesh is medium thick. Flavor is sweet and mild, better than other peppers of similar wall thickness. This variety sets fruit heavily under conditions causing vegetative growth in other varieties.

This variety should find a place in every home garden because of its quality, but it may not meet with favor in some markets because of its long tapering shape.

**Waltham Beauty** — Developed by the Waltham Field Station as an early, heavy-walled, highly productive pepper of the stuffing type. Plants short, narrow-leaved. Fruits borne erect, 5" long by 4" broad, medium smooth, bullnosed but gradually tapering to an obtuse point and bright red at maturity.

**World Beater** — A late variety popular with market gardeners and shippers. Fruits are 5" long, 3½" in diameter, are 4-lobed, thick-fleshed, mild and sweet, glossy green, changing to bright red at maturity.

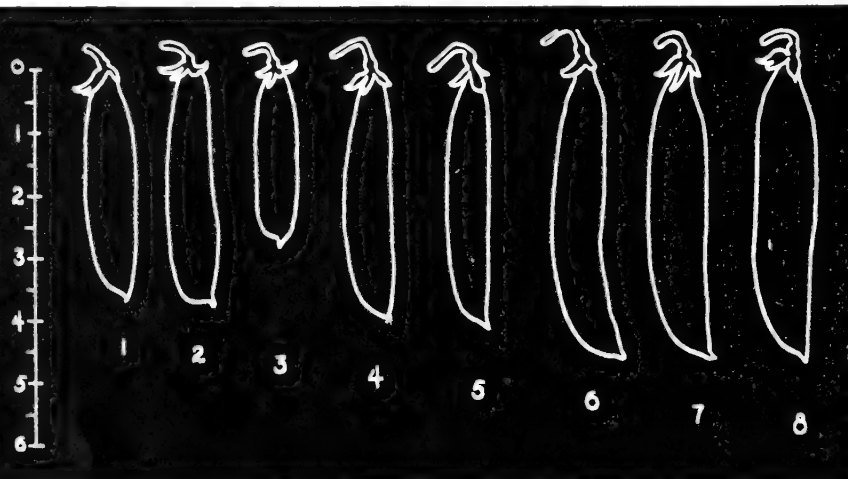
**California Wonder** — An outstanding late variety used principally for market and shipping. Fruits are 4½" long and 4" in diameter, 4-lobed, chunky, smooth and deep green changing to bright crimson at maturity. The flesh is exceptionally thick.

## HOT

**Long Red Cayenne** — An early hot variety, used largely for pickles, canning and drying. Plants are large and productive. Fruits 5" long, ¾" in diameter, tapering, frequently twisted, deep green changing to brilliant red at maturity and very pungent.

## Pepper Culture

One ounce of seed produces about 2000



★ Peas may all look alike in the same pod — but the pods of different varieties definitely do not . . . (1) *World Record*, (2) *Thomas Laxton*, (3) *Little Marvel*, (4) *Laxton's Progress*, (5) *Hundredfold*, (6) *Gilbo*, (7) *Stride 40*, (8) *Alderman*.

# PEAS

## WRINKLED

**World Record** — A good pea for the first early market and for the home garden. Vines are semi-dwarf. Pods average about 3½" long, are medium green, broad and well filled with peas of good size and color and of good quality for the season.

**Thomas Laxton** — A second-early semi-dwarf pea of very highest eating quality, being tender and sweet when at proper stage of maturity. It is the premier home-garden variety and is being extensively used for quick freezing. The vines are light green, and productive. While support is not essential it makes harvesting in the home garden much easier. The pods are large, straight, square-ended and tightly filled with from 7 to 9 peas.

**Little Marvel** — A dwarf pea of exceptional quality for the home garden. Pods are dark green, tightly filled and borne in doubles, therefore very prolific. This variety shells out a high proportion of peas per unit weight of pods.

**Laxton's Progress** — The largest-podded and most attractive pea of the Laxton group. Vines and pods dark green, peas are large and of high sugar content. Vines short.

dens. Pods are plump to round, dark green and well filled. The plant branches and bears profusely over a long, late picking season. The vines must be well supported with tall brush or wire. Wider row spacing is more necessary than for varieties with shorter vines. Resistant to fusarium wilt.

**Edible Pod** — These peas are not shelled before eating but are cooked and eaten, pods and all. For best quality this must be done shortly after the peas *begin* to form inside the pod. After the peas are fully developed the pods become papery and tough. When pods are kept picked at this early stage these varieties will yield large quantities of delicious pods over a long picking season. Both are resistant to fusarium wilt.

**Dwarf White Sugar (Lancaster County Penna. Strain)** — The pods of this white blossomed variety reach edible maturity at a very early age — about 50 days. The vines are about 30" tall producing prolifically the 2 to 2½" long edible pods.

**Mammoth Melting Sugar** — These 4" pods are not ready for eating until about 75 days after planting, when they are broad, occasionally twisted, brittle, succulent, free from parchment and of high sugar content. Vines grow 60" tall and should be supported.

plants, 5 ozs. required per acre. Sow inside about March 15, transplant once or twice and finally set in field after danger of frost is over 20" by 30" apart. A moderately fertile soil is desirable.

## PUMPKIN

**New England Pie** — A small, high-quality pie pumpkin, also known as Small Sugar. Fruits are round, flattened at the ends, somewhat ribbed, and weigh 6 to 8 lbs. The skin is smooth, hard and a deep orange color. The flesh is sweet, thick, orange-yellow and of high quality.

**Connecticut Field** — A field variety grown for stock feed, canning, pie stock and Halloween decorations. Often planted in corn fields. Fruits are large, 15 to 25 lbs., round and flattened at the ends. Surface is hard, smooth, ribbed and deep orange color. The flesh is thick, orange-yellow, sweet but coarse.

### *Pumpkin Culture*

One ounce of seed plants 20 hills — 4 lbs. per acre. Plant after danger of frost, 1" deep in 8' x 8' hills, 5 seeds per hill and thin to 2 or 3 plants per hill.

## RADISH

**Early Scarlet Globe** — The most popular home and market garden radish, very early, consequently suitable for forcing under glass. Roots are oval, bright scarlet with a small to medium top. Flesh is of high quality, crisp and tender.

**Sparkler White Tip** — The roots of this variety are round, smooth, dull scarlet-red, with the lower  $\frac{1}{3}$  of the root white. The flesh is mild, white, crisp and tender. A very attractive radish when bunched for market and when served on the table because of its two-color skin.

**White Icicle** — The earliest and most extensively used long, white, summer radish. The tops are small. The roots are 5" to 6" long, slender, of uniform thickness and smooth. The flesh is very crisp and mild.

**Crimson Giant** — A second early with deep crimson globular root, remaining crisp and sweet for a long time as it increases in size, while other varieties become hot and pithy with age. Roots 1-1 $\frac{1}{2}$ " in diameter with white flesh.

### *Radish Culture*

One ounce of seed plants 100' of row — 12 lbs. per acre. For continuous harvest, sow every 2 weeks from April 1 to September 1 in a fertile and well-prepared seedbed. Sow  $\frac{1}{2}$ " deep in rows 12" apart. Uniform planting with seed  $\frac{1}{2}$ " apart in the rows should require no thinning.

## RUTABAGA

**Macomber** — This strain was developed by growers in Bristol county, Massachusetts, and is well adapted to the Cape Cod region. Roots are ovate in shape, 5" to 6" in diameter, weigh-

ing 4 to 5 lbs., white, but rose-colored on top. Flesh is white, crisp, firm, of delicate flavor and excellent quality. Seed should be planted about July 15 so that most growth is made during cool fall weather.

**Long Island Neckless Purple Top** — A slightly slower growing variety than Macomber so should be sown correspondingly earlier. Roots are 4" to 6" in diameter, weighing 3 to 4 lbs., yellow but purple on top, obovate in shape. Flesh is yellow, firm, sweet and tender.

### *Rutabaga Culture*

As for all root crops, the seedbed should be deeply prepared and well fertilized. One ounce of seed plants 400' of row — 2 lbs. per acre. Sow  $\frac{1}{2}$ " deep in 18" to 24" rows from June 15 to July 10 or just in time to allow maturity before hard freezes. Thin seedlings to 6" to 8". Seed is sometimes broadcast and raked in lightly using 3 to 4 lbs. per acre. For storage, leave roots in the ground until late fall, then harvest before a hard frost and store in a cool, moist cellar.

A water-soaked browning or blackening of areas in the fleshy root may indicate boron deficiency in the soil. If such a condition is found, consult your county agent or the Eastern States Farmers' Exchange fertilizer department for recommended treatment.

## SALSIFY

**Mammoth Sandwich Island** — An improved variety. Commonly known as "vegetable oyster." Roots are 6" to 8" long, 1" to 1 $\frac{1}{2}$ " thick, tapering, smooth and dull white. Roots may remain in the field over winter similar to parsnips. Used principally in soup stock.



### *Salsify Culture*

One ounce of seed plants 100' of row — 7 to 8 lbs. per acre. Sow in a fertile soil from April 15 to May 1 in a mellow seedbed. Sow  $\frac{1}{2}$ " deep in rows 2' apart. Thin seedlings to 3" apart in the row.

## SPINACH

**Dark Green Bloomsdale** — A fast-growing, dark green, most attractive savoy spinach. The

leaves are thick, crumpled and erect, forming a large vase-shaped plant with a spread of 12 to 16". In warm weather with long days it shoots seed stalks within a few days after reaching marketable size so ordinarily it has been used only for the first spring and early fall crops. With seed of the longer standing varieties very limited in supply for 1943 this variety can be used throughout the season by frequent succession, avoiding crowding, and prompt harvest as soon as marketable size is reached.

It is not resistant to yellows (mosaic) and should not be used where that disease is prevalent.

**Long Standing Bloomsdale** — A second early and main crop variety standing 12-14 days longer than regular Bloomsdale, but not as fast growing. The thick, crumpled, rosette leaves are erect, forming a large plant with a spread of 12" to 16". May be sown from earliest spring planting until midsummer, realizing that all spinach seeds quicker in midsummer. Due to crop failure no seed is available in 1943.

**Summer Savoy** — A strain of Long Standing Bloomsdale especially selected to make its best growth during June, July and early August. Plants erect, dark green, well-crumpled, slightly smaller and slower growing than Long Standing Bloomsdale. Due to crop failure no seed is available in 1943.

**Virginia Blight Resistant Savoy** — A savoy variety resistant to blight for fall cutting. Plants are vigorous and seed rather quickly if planted before August 15 to September 15, depending on location and weather. The rosette leaves are thick, crumpled and erect, forming a large plant with a spread of 12-14". Also may be wintered over where temperatures are not too severe and some protection is available.



This market garden grew a crop from Eastern States spinach seed, and was the harvest crew busy!

**Old Dominion** — An erect, dark green, slightly crumpled variety particularly adapted to wintering over south of Massachusetts. It is slower growing than Virginia Blight Resistant and stands longer in the spring. For overwintering in southern New England, plant in early September; Pennsylvania, Delaware and Maryland, in late September. Not adapted to spring planting.

### *Spinach Culture — All Varieties Except New Zealand*

One ounce of seed plants 100' of row — 8 to 12 lbs. per acre. Sow seed  $\frac{1}{2}$ " deep, 2" to 4" apart in 14" to 18" rows. The seedbed should be well drained, fertile, and finely prepared. Side-dress with nitrogen as needed during the growing season.

**New Zealand** — Not a true spinach but of similar quality when cooked. Thrives in hot weather when other spinach bolts to seed. Plants are branched, often spreading 3 or 4 feet, and grow to a height of 1-2'. The leaves are thick, dark green and somewhat triangular in form. Only the tender branch tips should be used and frequent cuttings can be made all summer. No seed available in 1943.

### *Spinach Culture — New Zealand*

Two ounces of seed plants 100' of row — 15 lbs. per acre. Soak seed 48 hours before planting to hasten germination. Sow from May 1 to June 1 for summer use, in hills, 3' x 4' apart, 4 seeds per hill and 1" deep. Seedbed should be well drained and finely prepared.

## SQUASH

### SUMMER BUSH VARIETIES

**Early Prolific Straight Neck** — This strain produces medium-sized plants bearing smooth-skinned fruits 10-12" long, uniformly light orange yellow in color with no flecking. Seed cavity about 4" in diameter and the blossom end is rounded to a small scar. This strain sets heavily and produces over a long period.

**White Bush Scallop** — A very early, flattened, scalloped summer squash, also known as Patty Pan. Fruits are creamy white, smooth with deep flesh of excellent texture and flavor. Vines are vigorous and very productive.

**Long Cocozelle** — A second early summer variety with cylindrical smooth, straight fruits, dark green with lighter stripes, which

change to deep yellow at maturity. Flesh is firm and greenish-white and the best quality of all varieties of this type. It is very prolific, picking over a long period. Fruit can be picked in various stages of growth from 6" to 20" in length; the larger ones require paring.

### *Squash Culture — Summer Bush*

One ounce plants 50 hills — 3 to 4 lbs. per acre. Plant after danger of frost up to June 15, 1" deep in hills 4' x 4', 6 seeds per hill. Thin to 3 plants per hill.

### FALL AND WINTER (TRAILING VINES)

**Buttercup** — A small-fruited variety belonging to the Hubbard group. Fruits are flattened, dark green, mottled with light green, have a medium-sized turban, adapted for fall and winter use. Flesh is free from stringiness, thick, deep yellow, dry and sweet. Its high quality makes it desirable for roadside markets and home gardens.

**Warren's Essex Hybrid** — Fruits weigh from 10-20 lbs. 8" to 12" from stem to blossom end and 12" to 16" in diameter. A flattened, cylindrical turban shape, with a distinct button on the blossom end. Skin is hard, warted and orange-red in color. The flesh is deep orange, thick, dry and sweet. For fall markets.

**Des Moines** — Also known as Acorn and Table Queen. Fruits are dark green, pointed acorn shape, uniformly-ribbed, smooth, thin-shelled, 4" to 5" in diameter and 6" long. Flesh is light yellow, smooth in texture and sweet. Especially delicious when baked in the half shell for individual servings.

**Golden Delicious** — Top-shaped squash of rich orange color and a dark green blossom end. A fall and winter variety excellent for home use and canning. Flesh is thick, medium-grained, sweet and golden orange. The fruit is 8" in diameter, 10" to 12" from stem to tip, weighing 7 to 8 lbs.

**Vermont Hubbard** — A green Hubbard type with fruits 10" to 14" in diameter, 12"

to 16" long, weighing 10 to 20 lbs. Shell is very hard, flesh exceptionally thick, deep orange, dry, fine-grained, excellent flavor. Stores well.

**Blue Hubbard** — The standard variety for winter storage. Fruits 20" long, 10" in diameter, weighing 15 to 30 lbs. with solid neck and blossom end. The shell is blue, hard, brittle, and medium-warted. Flesh is orange-yellow, thick, medium-dry and sweet.

**Golden Cushaw** — An exceedingly high quality, productive squash, highly desirable for home gardens, roadside stands and many markets. The fruits are golden russet or light tan in color with long generally curved necks and a bulbous seed end. They average to weigh about 4 to 5 lbs. each. When mature the flesh is a rich orange color, dry and sweet with only a small seed cavity in the bulbous end. The neck is solid. When green the fruits can be used just as the summer bush varieties but with much more flavor. When fully matured and carefully handled and stored they can be kept all winter. Will not cross readily with pumpkins or other squashes.

### *Culture — Fall and Winter Squashes*

One ounce of seed plants 20 hills — 4 lbs. per acre. Plant after danger of frost, 1" deep in 8' by 8' hills, 6 seeds per hill. Thin to 2 or 3 plants per hill. Keep down weeds and control leaf-feeding insects and the stalk borer.

## TOMATO

**Pennheart** — This is a new extra early variety of tomato of outstanding merit. It was developed by Dr. C. E. Myers of Pennsylvania State College and upon test at Eastern States Trial Grounds at Feeding Hills, Massachusetts, during 1942 was outstandingly superior to all other early varieties. It is a dwarf type, the plants developing to only about 30" in diameter. It produces heavily over a short early period and holds its foliage well, giving considerable protection from sunscald. Fruits weigh from 5 to 7 oz. each, are deep red, often with a green shoulder, smooth and a flattened globe in shape. The interior is solid, meaty and well-colored.

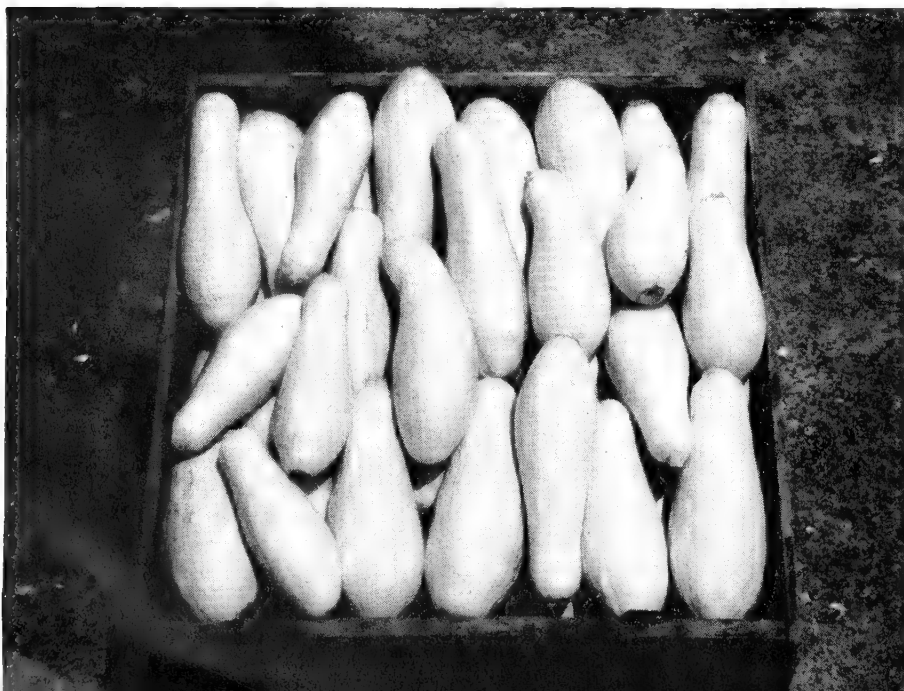
This variety is intended to be useful only for producing a first early crop. Close planting — 18" in 3' rows — produces a heavy yield for the area occupied before the standard vine varieties come into production, and after the crop is harvested there is still time to produce some other quick growing crop on the same land.

**Bonny Best (Shirley)** — Selected for earliness, vines somewhat susceptible to blight, medium size, fruit protection by foliage fair. Fruits are a flattened globe, 5-6 ozs., smooth, of deep red color, thick-walled, and mature rapidly.

**Stokesdale** — A highly productive, red-fruited variety in the John Baer season (73 days) and resistant to fusarium wilt. The vine is vigorous and leafy, but it fruits so heavily that some extra nitrogen must usually be supplied about the time the first fruits ripen to retain the foliage. The fruits are of medium size, 5 oz., globular, 5 to 6-celled and medium red.



Trim, attractive and plenty good to eat are the *Eastern States Early Prolific Straight Neck* squash in this market box.



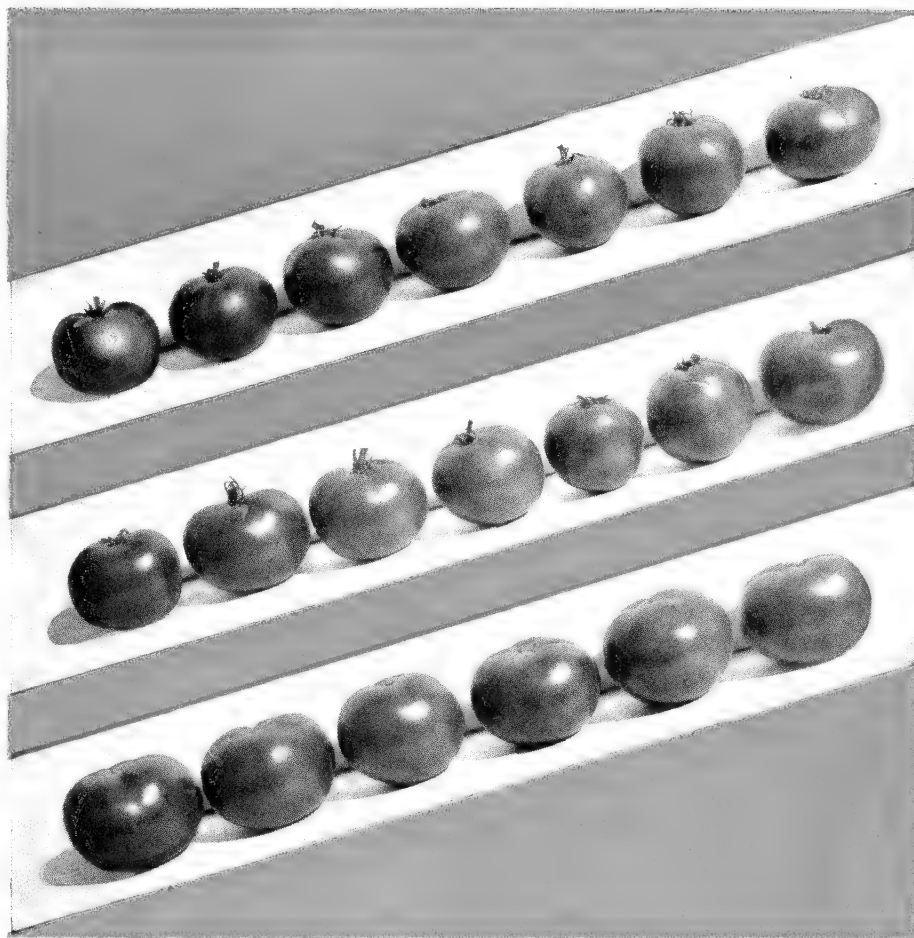
**Pritchard** — A second early variety developed by the U.S.D.A. and noted for disease resistance. Fruits are large, smooth, globular, solid, with thick walls and small seed cavity, scarlet in color and self-topping. A good variety for market and home gardens and for canning. The plant is very prolific and vigorous in growth, affording excellent protection for the fruit from sun scalding.

**Marglobe** — Developed by the U.S.D.A. and noted for its high yields and resistance to fusarium wilt. Plant is medium to large and affords good fruit protection. Fruit is medium to large, globe-shaped, bright red, smooth, thick-walled, good quality and borne in clusters of 4 or 5. Used extensively for homes, market and canning.

**Rutgers** — Developed by the New Jersey Experiment Station from a cross of J.T.D. and Marglobe. The vines are vigorous and rank growing under moist conditions. The fruit is deep scarlet, firm fleshed and of flattened globe shape, larger than Marglobe. For proper growth and fruiting, nitrogen applications must be withheld until after fruit setting; nitrogen can then be applied as a side-dressing.

#### Tomato Culture

One ounce of seed should produce 3000 plants, enough for  $\frac{3}{4}$  acre unpruned or  $\frac{1}{2}$  acre staked and pruned. Sow in greenhouse early in March (7 to 9 weeks before planting). Transplant to 2" x 2" or more to avoid crowding. Harden off and transplant to the field after danger of frost, about May 15 or earlier if protected. Set 2' x 4' if to be staked and pruned or 3' to 3 $\frac{1}{2}$ ' x 4' if to be left on the ground.



★ Tomatoes can put on style shows, too — top row is *Pritchard*; middle row is *Marglobe*; and bottom row is *Rutgers*. Confidentially, we wanted to show *Pennheart*, also, but nobody could produce a picture.

## TURNIP

**Purple Top White Milan** — An early variety for forcing or field culture. Tops are small and compact with strap leaves. Roots have purple top with white base, grow 3" to 4" in diameter, deep but flat, white-fleshed, sweet and tender. For the early crop sow seed from April 1 to May 1; late crop July 15 to August 1.

**Purple Top White Globe** — Should be planted in late July to August 1, as it makes its best development in cool fall weather. The root is globular in shape, 3 to 4" in diameter, purple above ground and white below. The flesh is crisp, white, fine-grained, sweet, mild and tender. Tops are dark green, lobed, large and erect.

**Amber Globe** — A yellow-fleshed variety for fall planting. Later maturing than Purple Top White Globe so should be planted correspondingly earlier. When grown in mid-summer, flesh becomes bitter. Roots semi-globular, 5" to 6" in diameter. Flesh pale yellow, fine-grained, tender and sweet.

(Also see Rutabaga varieties.)

#### Turnip Culture

As for all root crops the seedbed should be deeply prepared and well fertilized. One ounce of seed will plant 300' of row — 2 lbs. per acre. For early crop, seed as early as ground can

be prepared, for late crop, in late July or in August or just in time to allow maturity before hard freezes. Sow  $\frac{1}{2}$ " deep in 12" to 18" rows. Thin seedlings to 4" to 6". Removals may be used for greens. For late crop, seed is sometimes broadcast and raked in lightly using 2 to 4 lbs. per acre. For storage, leave roots in the ground until late fall, then harvest before a hard frost and store in a cool, moist cellar.

A water-soaked browning or blackening of areas in the fleshy root, with or without an unthrifty condition of the plants, may indicate boron deficiency in the soil. If such conditions are found, consult your county agent or the Eastern States Farmers' Exchange fertilizer department for recommended treatment.

## How To Order Eastern States Vegetable Seeds

★ **Ordering:** All orders are subject to confirmation and having satisfactory stocks on hand at time of shipment. Early orders are important to obtain the varieties desired before supplies are exhausted and to obtain delivery well in advance of planting time.

Whenever possible, order through your local representative or nearest Eastern States warehouse. If inconvenient to order in that manner, send your order direct to Eastern States Farm-

ers' Exchange, West Springfield, Massachusetts.

**Delivery:** All orders are received and checked at West Springfield and forwarded to the seed warehouse at Buffalo, New York, for filling and shipment. Vegetable seeds can be shipped by parcel post, express, direct freight or in Eastern States feed cars. Whenever acceptable to the member, shipments are made in feed cars as it is the most economical method, and savings resulting from this method of distribution are reflected on the prices quoted. Allow 10 to 14 days from the time orders are mailed for delivery. The time required will vary, depending upon week-end delays and the rail and mail service to your location. Rapid handling and routing will be made for prompt and safe delivery of each order.

Dates at which the shipment of Eastern States vegetables seeds can begin are:

January 4, 1943 — Seeds of those vegetable crops which are commonly started under artificial heat and later transplanted — including tomatoes, peppers, cauliflower, celery, broccoli, cabbage, eggplant and lettuce.

February 3, 1943 — Seeds of those vegetable crops which are commonly sown early directly in the field — including peas, radish, corn, beets, carrots, spinach, chard, endive and parsley.

March 3, 1943 — Seeds of other vegetable crops listed and available.

Please plan and submit your order so it will not conflict with these beginning dates.

Orders for deferred shipment will be so handled as to obtain arrival of seeds on the date requested.

**Warehouse Service:** Limited supplies of seed will be maintained at Eastern States warehouses for the emergency requirements of members. Do not depend upon warehouse service for your basic requirements. Better service can be rendered at less expense when members anticipate their needs and place orders well in advance of the desired arrival date. It pays to cooperate.

**Charges:** Prices are subject to change without notice and are definitely established only upon confirmation. Such confirmation will be at the prices in effect at the Eastern States office in West Springfield on the post-marked date of the order.

Prices quoted include seed treatment, bags, and transportation within Eastern States territory when method is at our option.

If a shipment in excess of 50 pounds (gross weight) is requested by parcel post or express, the member agrees to pay transportation charges, collect.

Member prices on seed taken from warehouses or representatives' stocks without an advance order are slightly higher. Catalog prices may be obtained by placing orders in advance for feed car shipments or direct by L.C.L. freight, parcel post or express.

**Payments:** Cash with the order or C.O.D.

**Package Units:** Seed is packaged in standard size units only, as noted. Unless otherwise authorized, we will ship each item in the largest standard size unit available and invoice at the rate for its total weight. Orders which specify a given size package will be invoiced at the rate of that unit. Varieties cannot be combined to obtain lower prices of larger units.

THE Eastern States Farmers' Exchange of West Springfield, Massachusetts, has exercised all reasonable precautions in the production and distribution of this seed, but cannot be responsible for the operation of Nature's laws, nor govern the conditions under which the crop is grown. Therefore, upon the acceptance of this seed it is mutually agreed that the Eastern States Farmers' Exchange gives no warranty, expressed or implied, concerning the description, quality, productiveness or condition of the crop and shall in no case be liable for more than the amount actually paid for the seed. Statements of germination, description, and other information are given as the report of our tests, observations and advice.

It is further mutually agreed by both the member buyer and the Exchange that in case of partial or total crop failure of any or all crops purchased, planted or caused to be planted by the Exchange for the purpose of procuring the quantities, and varieties of seed purchased by the member, or in case of damage to, or destruction of the intended stock seed before planting, or to the products of such plantings, or to any seed of these varieties now on hand to be delivered, through fire, accident or otherwise, the Exchange shall be obliged to deliver proportionate quantities only after reserving an amount of stock seed equal to that used in its plantings.

## Vegetables For a Family of Four

8000 sq. feet = 80' × 100'

	<i>Linear Feet</i>	<i>No. of Plants</i>	<i>Production</i>	<i>Sq. Ft. Required</i>
<i>Perennials</i>				
Asparagus . . . . .	75	50 Crowns	50 lbs.	375
Rhubarb . . . . .	20	6 Hills	60 stalks	80
<i>Greens</i>				
Swiss Chard . . . . .	10	20 plants	10 lbs.	20
Spinach . . . . .	40 (2 crops)	—	25 lbs.	60
New Zealand Spinach . . . . .	15	5 plants	12 lbs.	60
Beets . . . . .	—	Thinning from crop for roots	15 lbs.	..
Turnip . . . . .	—	Thinning from crop for roots	10 lbs.	..
Kale . . . . .	15	—	10 lbs.	25
<i>Cole Crops</i>				
Cabbage — Early . . . . .	15	10 plants	30 lbs.	30
Cabbage — Late . . . . .	35	20 plants	80 lbs.	100
Cauliflower . . . . .	50	30 plants	25 heads	125
Broccoli . . . . .	50	25 plants	50 lbs.	150
Kohlrabi . . . . .	25 (2 crops)	60 plants	20 lbs.	40
Chinese Cabbage . . . . .	25	20 plants	20 heads	50
Brussel Sprouts . . . . .	25	12 plants	10 quarts	75
<i>Salad Crops</i>				
Lettuce — Head . . . . .	25	25 plants	20 heads	35
Lettuce — Leaf . . . . .	25 (3 crops)	70 plants	15 lbs.	25
Endive . . . . .	25	25 plants	12 lbs.	40
Parsley . . . . .	10	15 plants	4 lbs.	15
Celery . . . . .	50	100 plants	90 plants	150
<i>Beans and Peas</i>				
Peas . . . . .	300	—	100 lbs.	900
Snap Beans — Bush . . . . .	200	1000 plants	100 lbs.	600
Snap Beans — Pole . . . . .	50	50 plants	60 lbs.	200
Lima Beans — Bush . . . . .	200	600 plants	50 lbs.	600
Lima Beans — Pole . . . . .	50	50 plants	25 lbs.	200
<i>Root, Bulb &amp; Tuber Crops</i>				
Beets — Early . . . . .	25	150 Roots	20 lbs.	35
Beets — Late . . . . .	100	400 Roots	100 lbs.	150
Carrots — Early . . . . .	25	150 Roots	15 lbs.	35
Carrots — Late . . . . .	100	500 Roots	75 lbs.	125
Radish — In rows with other crops	—	—	—	—
Rutabaga & Turnip . . . . .	100	200 Roots	100 lbs.	150
Parsnip & Salsify . . . . .	100	300 Roots	80 lbs.	150
Onion . . . . .	100	350 Bulbs	75 lbs.	150
Potatoes . . . . .	400	400 Hills	10 bu.	1000
Corn . . . . .	400	550 Stalks	600 ears	1000
<i>Vine Crops</i>				
Summer Squash . . . . .	25	8 Hills	30 fruits	100
Winter Squash — In corn rows	—	10 Hills	30 fruits	..
Cucumbers . . . . .	25	6 Hills	25 lbs.	125
Muskmelon . . . . .	70	12 Hills	50 fruits	350
Watermelon . . . . .	30	6 Hills	10 fruits	240
Pumpkins — In corn rows	—	10 Hills	25 fruits	..
<i>Solanaceous Crops</i>				
Tomatoes . . . . .	150	75 plants	400 lbs.	500
Peppers . . . . .	50	30 plants	150 fruits	125
Eggplants . . . . .	25	12 plants	30 fruits	75

# VEGETABLE PLANTING GUIDE

## For Direct Field Seeding

Kind of Vegetable	Seeds Per Oz.	Seed Needed		Field Planting Date	Inches Between		Inches Deep to Plant Seed
		For 100 ft.	Per Acre		Rows	Plants	
Asparagus Seed	1250	½ oz.	5 lbs.	4/1-5/15	20-24	4	1
Beans — Bush Snap	60-75	8 oz.	60-80 lbs.	5/1-7/15	30-36	3-4	1
Beans — Pole Snap	60-75	4 oz.	15-20 lbs.	5/15-7/1	48	48 H.	1-1½
Beans — Bush Lima	30	1 lb.	100 lbs.	5/15-6/15	36-40	4	1-1½
Beans — Pole Lima	30	8 oz.	50 lbs.	5/15-6/1	48	48 H.	1-1½
Beans — Bush Shell	50-75	8 oz.	60-90 lbs.	5/15-6/1	30-36	3-4	1-1½
Beets	1500	1 oz.	10 lbs.	4/15-8/1	12-18	2-3	1/2
Chinese Cabbage	8000	1/8 oz.	4 oz.	7/1 -8/1	24	15	1/2
Carrot	27000	¼ oz.	2-3 lbs.	4/15-8/1	12-15	2	¼
Chard	1100	½ oz.	4-5 lbs.	5/1 -6/1	24	6	½
Corn — Sweet	125	2 oz.	12-15 lbs.	5/1 -6/20	30-36	10-14	1
Corn — Pop	200	1½ oz.	8-10 lbs.	5/1 -6/1	30-36	10-14	1
Cucumber	1000	½ oz.	2-3 lbs.	5/15-6/15	60	48 H.	1½
Dandelion	35000	¼ oz.	2-3 lbs.	8/1 -9/1	18-24	6-10	¼
Endive	15000	¼ oz.	2-3 lbs.	4/15-8/1	18-24	12	½
Kale	7500	¼ oz.	2-3 lbs.	7/15-8/1	18-24	18	½
Kohlrabi	8000	½ oz.	4-5 lbs.	4/15-8/15	18-24	5	½
Lettuce — Leaf	16000	¼ oz.	2-3 lbs.	4/10-7/15	12-15	8-10	¼
Lettuce — Head	16000	¼ oz.	1-2 lbs.	4/10-5/1	15-18	12-15	¼
Muskmelon	1000	½ oz.	2-3 lbs.	5/15-6/15	60-70	60-70 H.	1
Watermelon	200	½ oz.	2-3 lbs.	5/15-6/1	96	60-70 H.	1
Onion	12000	½ oz.	4-5 lbs.	4/10-5/1	18-24	3-4	½
Parsley	17000	½ oz.	3-4 lbs.	4/10-9/1	12-15	8-10	¼
Parsnip	5600	½ oz.	4-5 lbs.	4/10-5/1	15-18	4-6	½
Pea	90	1 lb.	90-150 lbs.	4/1 -5/1	30-40	2-3	1
Pumpkin	100	½ oz.	4 lbs.	5/15-6/1	96	60-70 H.	1
Radish	3500	1 oz.	12 lbs.	4/1 -9/1	12	1	½
Rutabaga	10000	¼ oz.	2 lbs.	6/15-7/10	18-24	6-8	½
Salsify	4500	1 oz.	7-8 lbs.	4/15-5/15	18-24	3	½
Spinach	3000	1 oz.	8-12 lbs.	4/1 -9/15	14-18	2-4	½
Spinach—New Zealand	350	2 oz.	15 lbs.	5/1 -6/1	48	36	1
Squash — Summer	300	½ oz.	3-4 lbs.	5/15-6/15	48	36 H.	1
Squash — Winter	125	1 oz.	4 lbs.	5/25-6/10	96	60-70 H.	1
Tomato	7500	1/20 oz.	4 oz.	5/15-6/1	36-48	24-36	½
Turnip	10000	½ oz.	2-4 lbs.	4/1 -8/1	12-18	4-6	½

H—Hills

## For Transplanting

Kind of Vegetable	Seeds Per Oz.	Plants from 1 oz. Seed	Plants Needed Per Acre	Date to Sow Seed	Field Planting		
					Date	Rows	Inches Between Plants
Asparagus Roots	1250	800	5800	4/1 -5/15	4/1 -5/1	60	18
Broccoli—Early	10000	5000	7200	2/15-3/15	4/1 -5/1	36	24
Broccoli — Late	10000	4000	7200	6/10-6/20	7/15-7/25	36	24
Brussel Sprouts	7000	3000	7200	5/15-6/1	7/1 -7/10	36	24
Cabbage — Early	8000	3500	15000	2/15-3/15	4/1 -5/1	24	15-18
Cabbage — Late	8000	2000	7000	4/25-5/10	6/1 -6/15	30-36	24
Cauliflower — Early	10000	5000	12000	2/25-3/25	4/10-5/1	30	18
Cauliflower — Late	10000	3000	9000	5/10-6/20	7/15-7/25	30-36	24
Celery — Early	75000	15000	40000	2/15-3/10	5/1 -5/15	24-48	4-6
Celery — Late	75000	10000	35000	5/10-5/25	7/1 -7/15	30-48	4-6
Eggplant	5000	2000	7000	3/10-3/25	5/20-6/10	36-40	24-30
Lettuce — Leaf	16000	4000	60000	2/15-2/25	4/1 on	12	8-10
Lettuce — Head	16000	4000	30000	2/15-2/25	4/1 -5/1	15-18	12-15
Muskmelon	1200	800	1500	4/15-4/25	6/1 -6/25	60-70	60-70
Pepper	4000	2000	10000	3/15-3/25	5/20-6/10	30	20
Tomato	7500	3000	4000	3/1 -3/25	5/15-6/10	36-48	24-40
Watermelon	200	150	1100	4/15-4/25	6/1 -6/15	96	60-70

BECAUSE OF THE UNSETTLED REGULATIONS NO FERTILIZER SUGGESTIONS ARE PROPOSED

# Price List of Eastern States Vegetable Seeds

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Kind and Variety	Days to Grow	Description	Price				
			Packet	4 oz.	1 lb.	5 lbs.	
<b>Asparagus — No Seed Treatment</b>			Packet	4 oz.	1 lb.	5 lbs.	
Seed **							
Mary Washington.....	3 yrs.	Large, green, rust resistant, early.....	.10	.50	1.50	6.00	
Roots ***			25 for \$1.25		100 for \$3.00		
Mary Washington.....	2 yrs.	Large, green, rust resistant, early.....	500 for \$8.50		1000 for \$15.00		
<b>Bean — Treated with Spergon ***</b>			Packet	1 lb.	5 lbs.	25 lbs.	100 lbs.
Bush Green Snap							
Stringless Valentine.....	48	Round pod, 6½", early	.10	.35	1.15	4.75	17.00
Bountiful.....	49	Flat pod, 6½", early					
Stringless Green Pod.....	52	Round pod, 6", 2nd early					
Stringless Tendergreen..	52	Round pod, 6", 2nd early					
Bush Wax Snap							
Pencil Pod Wax.....	50	Round curved pod, 6½", black seed	.10	.35	1.15	4.75	17.00
Brittle Wax.....	52	Round pod, 6", white seed					
Sure Crop Wax.....	53	Flat pod, 6", black seed					
Bush Shell or Field							
French's Horticultural..	85	Carmine splashed, green shell 7"-8"	.10	.35	1.15	4.75	17.00
Maine Yellow Eye.....	90	Yellow eye, 4½" pod, semi-runner					
Lapin Marrow.....	90	6" pod, white seed, for baking.....	No Seed Available for 1943.				
Geneva Red Kidney.....	95	Red kidney, 5" pod, disease res't.....	.10	.30	1.00	4.00	15.00
Bush Lima							
Fordhook.....	75	Large seeded potato type, 5" pod.....	.15	.40	1.50	6.75	24.00
Pole Lima							
King of Garden.....	85	Large seeded, 2nd early, 5" pod.....	.15	.40	1.30	5.75	21.00
Pole Snap							
Kentucky Wonder.....	65	Green, round pod, 9".....	.10	.35	1.15	4.75	17.00
Edible Soybeans							
Giant Green.....	90	Large seeded, green	.10	.35	1.15	4.75	17.00
Chusei.....	105	Smaller seeded, yellow					
<b>Beet — Treated with Red Copper Oxide **</b>			Packet	4 oz.	1 lb.	5 lbs.	25 lbs.
Crosby Early Wonder.....	58	Early market, oval	.10	.70	2.10	8.00	35.00
Detroit.....	65	Late market, globe					
<b>Broccoli — Treated with Semesan *</b>			Packet	½ oz.	4 oz.	1 lb.	5 lbs.
Calabrese.....	60	Green Sprouting.....	.10	.25	1.50	5.00	20.00
<b>Brussels Sprouts — Treated with Semesan ***</b>			Packet	½ oz.	4 oz.	1 lb.	5 lbs.
Long Island Improved....	95	Half Dwarf.....	.10	.35	2.25	7.00	30.00
<b>Cabbage — Treated with Semesan *</b>			Packet	½ oz.	4 oz.	1 lb.	5 lbs.
Smooth Green							
Golden Acre (Regular)..	70	Round, early, regular 3-3½ lbs.	.10	.35	2.25	7.00	30.00
Golden Acre (Yellows Res't)	72	Round, early, 3½-4 lbs.					
Marion Market.....	80	Oval, midseason, yellows res't 5-7 lbs.					
Short Stem Ballhead....	105	Round, late, 5-8 lbs.....	No Seed Available for 1943.				
Penn State Ballhead....	110	Round, flat top, late, 6-7 lbs.	.10	.35	2.25	7.00	30.00
Wisconsin No. 8 (Yellows Res't)	110	Round, flat top, late, 6-8 lbs.					
Specialties							
Drumhead Savoy.....	90	Savoy, green, flat, late 6-7 lbs.	.10	.35	2.25	7.00	30.00
Mammoth Rock Red....	110	Smooth, red, oval, late 7-8 lbs.					
Chinese							
Chihli.....	80	Tall celery type.....	.10	.25	1.50	4.80	20.00

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Kind and Variety	Days to Grow	Description	Price					
<b>Carrot</b> — Treated with Zinc Oxide **			Packet	1 oz.	4 oz.	1 lb.	5 lbs.	25 lbs.
Chantenay, Red Cored . . . . .	68	Short, tapering, early	.10	.50	1.75	5.00	20.00	75.00
Nantes Long . . . . .	70	Half long, cylindrical, early						
Imperator . . . . .	75	Long, tapering, large top						
Bunching . . . . .	75	Long, tapering, small top						
Danvers, Red Cored . . . . .	80	Half long, tapering, late						
Hutchinson (Field Sta. Strain) . . . . .	85	Long, cylindrical, late . . . . .	No Seed Available for 1943.					
<b>Cauliflower</b> — Treated with Semesan *			Packet	¼ oz.	1 oz.	4 oz.	1 lb.	5 lbs.
Super Snowball . . . . .	75	Deep head, for mid season	.10	.75	2.25	8.00	28.00	125.00
Danish Early Snowball . . . . .	65	Sure-heading, early						
Holland Erfurt . . . . .	85	Solid head, for late crop						
<b>Celery</b> — Treated with Zinc Oxide *			Packet	½ oz.	4 oz.	1 lb.		
Yellow								
Short Golden Plume (Cal.) . . . . .	110	Stocky, full heart, early . . . . .	.10	.40	2.25	7.00		
Tall Golden Plume (Jer.) . . . . .	115	Tall, full heart, early . . . . .	.10	.75	4.00	12.00		
Green								
Fordhook Emperor . . . . .	125	Short, thick, smooth stalk . . . . .	.10	.40	2.25	7.00		
Tall Fordhook . . . . .	130	Tall, full heart, late . . . . .	.10	.40	2.50	8.50		
Giant Pascal . . . . .	135	Tall, full heart, late . . . . .	.10	.40	2.25	7.00		
<b>Chard</b> — Treated with Red Copper Oxide **			Packet	1 oz.	4 oz.	1 lb.		
Swiss Savoyed								
Fordhook Giant . . . . .	55	Dark leaf, large rib } . . . . .	.10	.25	.60	1.50		
Lucullus . . . . .	55	Light leaf, large rib						
<b>Corn</b> — Treated with Spergon ***			Packet	1 lb.	5 lbs.	25 lbs.	100 lbs.	
Hybrid, Yellow								
Sugar and Gold . . . . .	74	High quality, yellow and white kernels } . . . . .	.10	.45	2.00	8.75	30.00	
		Susceptible to bacterial wilt						
Spancross (13.4) . . . . .	77	Fair quality, 4' stalk, 6½" ear . . . . .	.10	.35	1.50	7.00	25.00	
Early Golden (1.13) . . . . .	79	Excellent quality, 5½' stalk, 7" ear . . . . .	.10	.45	2.00	8.75	30.00	
Marcross (13.6) . . . . .	82	5' stalk, 8" ear, 12-14 rows	.10	.35	1.50	7.00	25.00	
Carmelcross (39.13) . . . . .	84	5½' stalk, 8" ear, 12-14 rows						
Whipcross (27.6) . . . . .	90	7' stalk, 8½" ear, 12 broad rows, heavy dark green husk						
Golden Cross Bantam . . . . .	98	Highest quality, 6½' stalk, 8" ear } . . . . .	.10	.24	1.00	4.50	16.00	
Open Pollinated, Yellow								
Golden Bantam . . . . .	90	5½' stalk, 6½" ear, 8 rows						
Whipple's Early Yellow . . . . .	94	6' stalk, 7" ear, 10-16 rows	.10	.24	1.00	4.50	16.00	
Bantam Evergreen . . . . .	104	7' stalk, 7½" ear, 14-18 rows						
Open Pollinated, White								
Lancaster 8-Row . . . . .	114	Vigorous, 7" ear, prolific . . . . .	.10	.35	1.50	7.00	25.00	
Stowell's Evergreen . . . . .	107	7½' stalk, 8" ear, 16-18 rows . . . . .	.10	.24	1.00	4.50	16.00	
<b>Popcorn</b> ***			Packet	1 lb.	5 lbs.	25 lbs.	100 lbs.	
Early Golden . . . . .	110	4' stalk, 4" ear, ptd. yellow kernels } . . . . .	.10	.24	1.00	4.50	16.00	
College Sunburst . . . . .	150	8' stalk, 7" ear, round yellow kernels						
<b>Cucumber</b> — Treated with Mer. Bichloride & Red Copper Oxide ***			Packet	1 oz.	4 oz.	1 lb.	5 lbs.	
Pickling (Black Spine)								
Association Pickling . . . . .	54	Small for sweet pickles } . . . . .	.10	.25	.60	1.75	7.50	
Chicago Pickling . . . . .	59	Large for dill pickles						
Slicing (White Spine)								
Straight 8 . . . . .	60	8" by 2", dark green, smooth } . . . . .	.10	.25	.60	2.00	8.50	
A & C Special . . . . .	70	10" by 2½", very dark green, smooth						

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Kind and Variety	Days to Grow	Description	Price				
<b>Dandelion</b> — Treated with Zinc Oxide ***			Packet	1 oz.	4 oz.	1 lb.	5 lbs.
Arlington Broad Leaf	175	Large thick leaf	.10	.75	2.00	6.50	
<b>Eggplant</b> — Treated with Red Copper Oxide *			Packet	1 oz.	4 oz.	1 lb.	5 lbs.
New Hampshire Hybrid	66	Oval, early, large	.10	.50	1.25	4.50	
Black Beauty	80	Oval, midseason, large					
<b>Endive</b> — Treated with Zinc Oxide **			Packet	1 oz.	4 oz.	1 lb.	
Full Heart Batavian	90	Broad plain leaf, yellow green	.10	.30	.90	2.00	
Green Curled Ruffec	95	Broad cut leaf, bright green, deep heart					
<b>Kale</b> — Treated with Semesan ***			Packet	1 oz.	4 oz.	1 lb.	5 lbs.
Blue Scotch	56	Dwarf, fine curled	.10	.30	.95	2.50	10.00
Blue-Green Siberian	64	Dwarf, hardy, thick leaf					
<b>Kohlrabi</b> — Treated with Semesan ***			Packet	1/2 oz.	1 oz.	4 oz.	1 lb.
White Vienna	60	Early, dwarf	.10	.30	.50	1.25	4.00
<b>Lettuce</b> — Treated with Spergon *			Packet	1 oz.	4 oz.	1 lb.	5 lbs.
Black Seeded Simpson	65	Loose leaf — For home gardens	.10	.25	.50	1.50	6.00
White Boston	70	Butter Head — For local markets	.10	.25	.60	1.75	7.50
New York 12	78	Iceberg type — For 1st early crop	.10	.30	.75	2.50	9.00
Imperial 44	78	Iceberg type — For rich soils					
Imperial 847	80	Iceberg type — For main crop					
Great Lakes	83	Semi-Iceberg type — For summer and fall crops. Orders accepted subject to seed crop out-turn with price determined at time of definite confirmation.					
<b>Muskmelon</b> — Treated with Mer. Bichloride & Red Copper Oxide ***			Packet	1 oz.	4 oz.	1 lb.	5 lbs.
Salmon Flesh							
Emerald Gem	85	Small, globe, ribbed, 2-3 lbs.	.10	.30	.75	2.50	9.00
Honey Rock	88	Large, globe, ribbed, 4-5 lbs.					
Hale's Best 112	90	Large, oval, netted, 4-5 lbs.					
Hale's Best 36	90	Large, globe, netted, 5-5 1/2 lbs.					
Hearts of Gold	94	Large, globe, ribbed, 4-5 lbs.					
Bender's Surprise	95	Large, oblong, ribbed, 7-8 lbs.	No Seed Available for 1943.				
<b>Watermelon</b> — Treated with Mer. Bichloride & Red Copper Oxide ***			Packet	1 oz.	4 oz.	1 lb.	5 lbs.
Northern Sweet	80	Round, red flesh, white seed, 8-10 lbs.	.10	.20	.40	1.25	4.50
Cole's Early	85	Oval, pink flesh, black seed, 20 lbs.					
Kleckley's Sweet	100	Oblong, red flesh, white seed, 30 lbs.					
<b>Onion Seed</b> — Treated with Semesan ***			Packet	1/2 oz.	4 oz.	1 lb.	5 lbs.
Yellow							
Early Yellow Globe	125	Medium size, solid, mild, stores well	.10	.30	1.50	4.50	20.00
Ebenezer	133	Deep-flat, used largely for sets					
Yellow Globe Danvers	140	Medium large, round, firm, storage					
Utah Valencia	125	For transplants, large, globular, sweet.					
White							
Silverskin Wh. Portugal	150	All-purpose, dependable, bulbs deep-flat, hard, mild.					
<b>Parsley</b> — Treated with Zinc Oxide **			Packet	1 oz.	4 oz.	1 lb.	
Paramount	120	Long stout stem, dark green, triple curled	.10	.25	.60	1.75	
Plain Leaf Italian	120	Long slender stem, bright green, not curled					
<b>Parsnip</b> — Treated with Zinc Oxide ***			Packet	1 oz.	4 oz.	1 lb.	5 lbs.
Improved Hollow Crown	150	Long, tapered, smooth	.10	.25	.60	1.75	6.00

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Kind and Variety	Days to Grow	Description			Price											
					Packet	1 lb.	5 lbs.	25 lbs.	100 lbs.							
<b>Pea — Treated with Spergon **</b>					Packet	1 lb.	5 lbs.	25 lbs.	100 lbs.							
Wrinkled Seed		<i>Vine</i>	<i>Pod</i>	<i>Suggested Use</i>												
World's Record . . . . .	58	34'' 4''	pointed	Early market	}	.20	.40	1.50	5.00	18.00						
Thomas Laxton . . . . .	62	36'' 3¾''	pointed	Home garden and freezing												
Laxton's Progress . . . . .	62	18'' 4½''	pointed	Midseason market												
Little Marvel . . . . .	63	20'' 3''	blunt	Home garden												
Hundredfold . . . . .	64	24'' 4¼''	pointed	Midseason market												
Gilbo . . . . .	68	26'' 5''	pointed	Late market												
Stride 40 . . . . .	72	26'' 5''	pointed	Late market												
Alderman (Dark Telephone) . . . . .	72	60'' 5''	pointed	Late market or home garden												
<b>Edible Pod</b>																
Dwarf White Sugar . . . . .	50	28'' 3''	narrow, thin	}							.20	.40	1.50	5.00	18.00	
Mammoth Melting Sugar . . . . .	72	60'' 4''	broad, fleshy													
<b>Pepper — Treated with Red Copper Oxide *</b>					Packet	½ oz.	1 oz.	4 oz.	1 lb.							
<b>Sweet</b>																
Early Giant . . . . .	62	Dwarf, short, bull nose fruit			}	.10	.30	.45	1.40	4.25						
Italian Sweet . . . . .	62	Early, thick flesh, long, pointed														
Waltham Beauty . . . . .	65	Dwarf, thick flesh, pointed, bull nose														
World Beater . . . . .	75	Tall, thick flesh, long, bull nose														
California Wonder . . . . .	80	Tall, thick flesh, chunky, bull nose														
<b>Hot</b>																
Long Red Cayenne . . . . .	75	Long, slender, early . . . . .			.10	.30	.45	1.40	4.25							
<b>Pumpkin — Treated with Mer. Bichloride &amp; Red Copper Oxide ***</b>					Packet	4 oz.	1 lb.	5 lbs.								
New England Pie . . . . .	110	6-8 lbs., yellow, round			}	.10	.50	1.25	5.00							
Connecticut Field . . . . .	120	15-25 lbs., flat-round, yellow														
<b>Radish — Treated with Semesan **</b>					Packet	4 oz.	1 lb.	5 lbs.								
Early Scarlet Globe . . . . .	24	Oval, small top, scarlet, market type			}	.10	.40	1.00	4.00							
Sparkler White Tip . . . . .	26	Round, dull scarlet, 2-color skin														
White Icicle . . . . .	27	5-6'', slender, smooth, mild														
Crimson Giant . . . . .	28	Large, globe, crimson														
<b>Rutabaga — Treated with Semesan ***</b>					Packet	4 oz.	1 lb.	5 lbs.								
Macomber . . . . .	80	Root ovate, rose-colored on top, flesh white . . . . .			.10	.35	.90	3.50								
L. I. Neckless Purple Top . . . . .	85	Root obovate, purple on top, flesh yellow . . . . .			.10	.70	2.00	8.00								
<b>Salsify — Treated with Red Copper Oxide ***</b>					Packet	4 oz.	1 lb.	5 lbs.								
Mammoth Sandwich Island . . . . .	270	Roots 8'' long, 1'' thick, tapering smooth, dull white . . . . .			.10	.65	1.75	7.00								
<b>Spinach — Treated with Zinc Oxide **</b>					Packet	4 oz.	1 lb.	5 lbs.	25 lbs.							
Dark Green Bloomsdale . . . . .	38	Fast growing, early bolting, sow thin in frequent succession . . . . .			.10	.25	.75	2.50	10.00							
Long Standing Bloomsdale . . . . .	42	For 2nd early and main crop			}	No Seed Available for 1943.										
Summer Savoy . . . . .	48	For summer crop														
Virginia Blight Res't Savoy . . . . .	38	For fall cutting or overwintering			}	.10	.25	.75	2.50	10.00						
Old Dominion . . . . .	210	Overwintering savoy, Yellows res't														
New Zealand . . . . .	75	Slow growing, long period harvest . . . . .														
<b>Squash — Treated with Mer. Bichloride &amp; Red Copper Oxide ***</b>					Packet	1 oz.	4 oz.	1 lb.	5 lbs.							
<b>Summer Bush</b>																
Early Prolific Straight Neck . . . . .	50	Lemon yellow, smooth, small scar			}	.10	.25	.55	1.50	5.00						
White Bush Scallop . . . . .	55	White Patty Pan														
Long Cocozelle . . . . .	55	Cylindrical, striped dark green														

\* Can be shipped after January 1. \*\* Can be shipped after February 1. \*\*\* Can be shipped after March 1. ◀ Orders requesting early shipment and including items in different groups will be split and each part shipped at earliest date possible as indicated. ◀ Order instructions page 17 — At warehouses order at least seven days in advance to obtain catalog prices.

→ Order only in units of package sizes listed and calculate the cost of each item at the rate of the largest package size which can be used. Varieties cannot be combined to obtain lower prices of larger units. Orders which specify a particular size of package will take the rate of that size

Kind and Variety	Days to Grow	Description	Price				
<b>Squash — Treated with Mer. Bichloride &amp; Red Copper Oxide ***</b>			Packet	1 oz.	4 oz.	1 lb.	5 lbs.
Fall & Winter (Trailing Vines)							
Buttercup.....	90	Turban, mottled green, solid, 4 lbs.	.10	.25	.65	1.70	6.00
Warren's Essex Hybrid..	95	Red turban, 10-20 lbs.					
Des Moines.....	100	Acorn, ribbed, green, 3-5 lbs.					
Golden Delicious.....	100	Top shape, orange, 7-8 lbs.					
Vermont Hubbard.....	110	Green, warted, 10-20 lbs.					
Blue Hubbard.....	110	Blue, warted, 15-30 lbs.					
Golden Cushaw.....	110	Golden, bulbous crookneck, 4-6 lbs.					
<b>Tomato — Treated with Mercuric Bichloride and Red Copper Oxide *</b>			Packet	½ oz.	1 oz.	4 oz.	1 lb.
Pennheart.....	60	Dwarf vine, deep red, solid, for first early crop only.....	.10	.75	1.25	4.00	14.00
Bonny Best (Shirley Strain)	68	Flattened globe, deep red, thick-walled	.10	.30	.50	1.60	4.80
Stokesdale.....	73	Globular, medium red, vigorous, wilt res't					
Pritchard.....	75	Large, globular, scarlet, solid, disease res't					
Marglobe.....	80	Medium to large, globular, bright red, wilt res't					
Rutgers.....	90	Vigorous, large, flattened globe, deep scarlet, firm					
<b>Turnip — Treated with Semesan***</b>			Packet	4 oz.	1 lb.	5 lbs.	
Purple Top White Milan..	42	Top small, root flat, flesh white	.10	.25	.75	2.50	
Purple Top White Globe..	55	Top large, root globular, flesh white					
Amber Globe.....	60	Top large, root semi-globe, flesh yellow					

Also see Rutabaga

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The whole family takes interest in the Eastern States vegetable garden on the farm of Raymond Taylor, president of the Exchange.



# Members

## Are Gardeners

☆ Every good vegetable garden in 1943 will be a crack at the Axis. It will aid victory for the Allies by improving the health of another family and by relieving the country's transportation system of carrying that much food. No one is better prepared and supplied for having a good vegetable garden than an Eastern States member. Get your seed, fertilizer, spray and dust materials ordered early.



☆ Earle and Stanley Ellsworth (above), a couple of young fellows with 4-H careers, do some of the gardening on the Harry Ellsworth farm in Farmington, Maine. These are *Eastern States Alderman* peas they are picking for home canning. Mr. Ellsworth is an Eastern States local representative and has served as an officer of the Farm Bureau and the DHIA.

At Kenney Farm, Concord, Massachusetts, they do a whopping market garden business. The harvests on this farm have "consumer-appeal" as suggested by the handsome celery in the picture at the right. Eastern States vegetable seeds are a regular part of the farm's program.



☆ On the farm of Robert Hunter, Lincoln, Massachusetts, Eastern States sweet corn varieties were used extensively in producing a good quality production for the discriminating Boston market.





# Eastern States Cooperator

THIS MAGAZINE is published monthly by the Eastern States Farmers' Exchange, headquarters: West Springfield, Mass. It is distributed free to members of this cooperative purchasing association. The purpose of the *Eastern States Cooperator* is to keep members informed about the progress of their organization — to help make better farming easier to accomplish by having up-to-date information available regularly. For anyone living outside Eastern States territory and those within the territory but not able to participate in the association's purchasing program, there is a subscription price of \$1.00 a year.

There are 100,000 members and patrons in the Eastern States Farmers' Exchange located in New England, Pennsylvania, Delaware, and Maryland. The members are the owners of the Exchange, which serves as the purchasing department of their farms. They control its operation through their annual meeting which every member has the right to attend. Each member has one vote.

Members elect the Exchange's board of directors at the annual meeting. Through its executive committee, the board of directors carries out its responsibilities to the membership. The management, responsible to the executive committee, selects and purchases the commodities handled by the association.

Eastern States commodities are processed in the Exchange's own plants — shipped in carloads — usually delivered to members from the car door — and paid for on a cash basis; factors that enable the Exchange's local representatives to serve 1000 communities economically.

Vol. 19 No. 1

## Meetings

★ THE Eastern States Annual Meeting is now scheduled for Springfield, Massachusetts, Tuesday, February 23, 1943. The place will be the Masonic Temple — same as for many years. *No meeting will be held in Boston.* Plans to hold a meeting there have been changed.

On Wednesday, February 24, there will be the usual local representatives' conference in Springfield.

On Thursday, February 11, in Harrisburg, Pennsylvania, there is scheduled a Membership Meeting for the Exchange's southern territory. The next day, February 12, a local representatives' conference will be held there.

Let's make these the best meetings ever!

## Where We're "at"

★ Now we know a little better just "where we're at" in buckling down to our war tasks. We have Mr. McNutt as manpower chief and Secretary Wickard as commander on the food front — both being aspects of our wartime endeavor which seriously affect farming.

Whatever the rules laid down by these administrators, the farmer's job is obvious. He and his family must produce all possible of the essential foods and fibers. They must manage somehow to create a substantial part of the family's food stocks out of sideline vegetable and meat projects. Farmers must polish up old-fashioned thrift and ingenuity in acquiring and maintaining the equipment for production. The farmer, his wife and his kids must relearn many of our grandparents' skills in food conservation.

The farmer still has the right — and, indeed, the duty — to holler when his capacity to produce is undermined by shifting manpower proposals. And not the least of his responsibilities is his contribution to a common sense public clamor for every man doing his honest best in whatever job he holds. There's no soft way to win this war —

and there must not be any soft jobs in war work.

## Neighborhood

★ THE world is now one big neighborhood. None can deny it. Many call attention to it. Decent folks are engaged in clearing out the racketeers who have so seriously threatened to destroy it and the rights of the neighbors. That job is the task to which all do and should bend their efforts. Until that job is done by the fighters adequately supported by the rest of us, it is impossible to know what pattern the development of world neighborliness can take. We know now, however, certain factors which are characteristic of acceptable neighborhoods, and we should be adjusting the United States end of town to enable it to be a constructive part of the world town.

Our end of town is going all-out to help the sections in the midst of the trouble. It is sending armed men to stop the rascality of the dictator bums. It is supplying the material required to smoke out the trouble makers, the food needed to replace that stolen or destroyed which our decent neighbors right in the scrap and on the edge of it have not the means or time to replace for themselves.

We shall have to continue the relief side of this community program after the fighting ceases, but we shall have to provide the means of terminating it or we shall be bled white to our disadvantage and that of the world neighborhood. We must encourage and make possible self-help and encourage folks to practice self-help. The largest free trade area in the world, populated by more people of different creeds, races and backgrounds than any other section of the world, the area where under these circumstances has blossomed the highest standard of living attained and the greatest opportunity for the individual anywhere—ever—should provide leadership and fellowship and cooperative understanding to help work this thing out on a by, of, and for the people basis.

## Casualty of War

★ WITH the sincerest of regrets the Exchange's management reports the necessity of discontinuing — among other items — *Eastern States Dog Feed*.

This decision was reluctantly made under pressure of circumstances dictated by the war. While dogs are not an economic necessity, the friendly and useful farm dog is very much a part of American farming.

The facts behind the decision are these: there is a drastic shortage of fish and meat scrap — the stuff that supplies animal protein for poultry feeds. With resources so limited, we are face to face with the choice of which will get enough animal protein to continue living under as nearly normal conditions as possible: poultry or dogs. The farm dog's animal protein can come from table scraps, but a flock of a thousand laying hens cannot get theirs that way. Next, the already barely sufficient supply of toasted cereals essential in a satisfactory dry dog feed was lately jolted badly when fire destroyed one of the few suppliers. Now, and for a long time in the future, there will not be enough of this item

THIS IS THE COMMANDO WHO REALLY  
HAS THE AXIS SCARED



FOOD WILL WIN THE WAR  
*and our job is to help produce it*

to sustain *Eastern States Dog Feed* production according to formulas that would be consistently satisfactory. To continue producing *Eastern States Dog Feed*, the Exchange's mill would have to run water uphill somehow.

Recent production of dog feed — distributed mostly in 25-pound bags — consumed much time in loading Eastern States assorted cars. Here again, dairy and poultry feeds must have "priority."

Adding up the circumstances, there is no sensible alternative except to cease producing *Eastern States Dog Feed*. To do so eliminates one of the best friend-makers the Exchange has ever had. Curiously, no matter how reluctantly members and patrons seem in admitting the virtues of Eastern States selective purchasing of general farming supplies, the family whose dog thrived when fed the Eastern States way became unqualified Eastern States boosters. Many a city family who "discovered" *Eastern States Dog Feed* sang the praises of the Exchange's program to country friends with the result that they were "sold" on the Exchange before they began using the service.

We all want *Eastern States Dog Feed* back soon . . . and the quickest way to get it back is to do everything we individually can to win this war.

## Scrutiny

★ WITH wages and salaries at an all-time peak, and the United States government going in the hole billions a month, why should the United States government subsidize milk to school children and cheese to all consumers? Remember, that the federal officials responsible for placing such burdens on the taxpayer know that the price dairymen are getting under the program — subsidies and all — are lower than they were when parents and consumers generally were receiving less pay for their services.

Stimulating farm production and "protecting" consumers through subsidy under existing conditions deserves closest general scrutiny by us all.

**KENNETH HINSHAW**  
Editor

**WALTER ELLIS**  
Associate Editor

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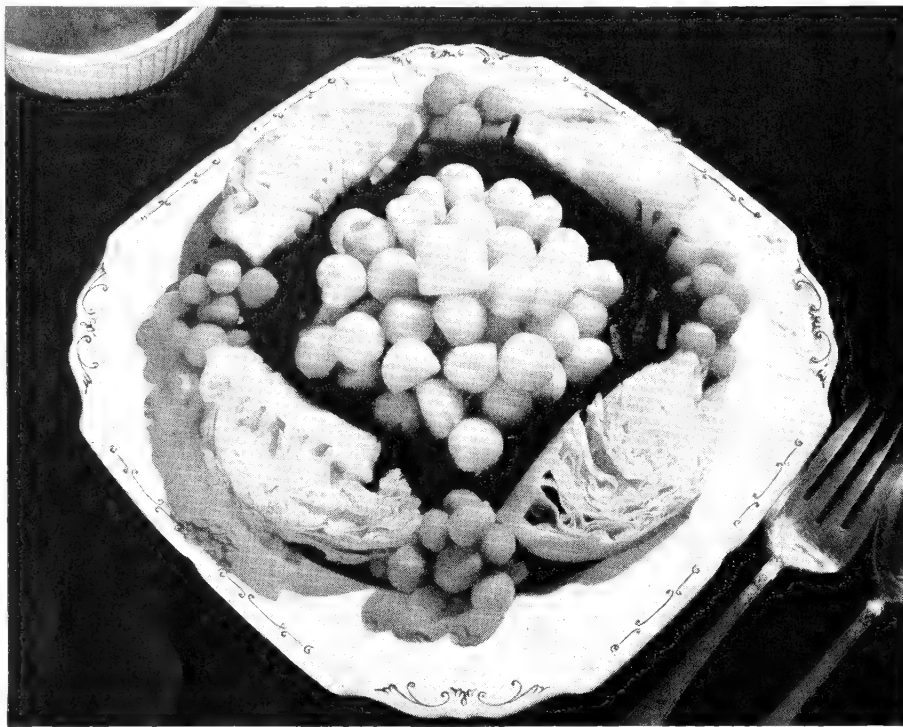
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# The HOMEMAKER'S NOTEBOOK

Edited by *Ida Fisher*



A mound of buttered potato balls surrounded by shoestring beets and buttered cabbage and carrot balls — a treat to the eye as well as to the tummy



☆ To win this globular war and achieve victory now and in the peace and reconstruction period to follow, we must have unbounded national vitality. The vitality of our nation is only the sum total of the vitality of all the individuals who make up the

nation. We must not only maintain our present level of vitality, but also must materially raise it. Forty percent of our young men who have been examined for military service have been rejected because of physical handicaps or weaknesses. It has been

estimated that at least one-third of these rejects were due to malnutrition. If this is the condition of our young men, what are the facts regarding the rest of our people?

In this "land of plenty," starvation has been going on for many years. Not starvation as in China and many European countries, but a creeping, insidious, unappreciated shortage of certain vital, health-giving factors which results in nervousness, colds, failing eyesight and lack of vigor and energy. In recent years this hunger has been recognized to some extent and an effort made to satisfy it by pills and potions of many kinds. Over 100 million dollars was spent last year on vitamin pills, making them the third greatest item sold over the counters of drugstores.

Many of these shortages in our diet and the need for drug store vitamins and minerals can be overcome by a more extensive use and proper preparation of vegetables. A garden changes a family's diet — there's no doubt about it. A recent survey found the following average consumption per person per week:

	<i>Families Without Gardens</i>	<i>Families With Gardens</i>
Fresh Vegetables . . . .	4 oz.	28 oz.
Root Vegetables . . . .	6.9 oz.	12 oz.
Fresh Fruit . . . . .	.7 oz.	4.8 oz.

But it is not enough just to have a garden and eat lots of the vegetables it produces. Care must be given to growing and eating the kinds of vegetables richest in vitamins and minerals and in using them so that essential factors are not lost.

This means green leafy vegetables, yellow vegetables and tomatoes. It means growing them well and harvesting them when in prime condition. It means eating as many as possible fresh and raw, and when cooking is necessary, cooking quickly and only as much as is actually needed. It means using very little water, cooking in a pan with a tight-fitting cover and making gravy from the cooking water and juices.

The accompanying table suggests the relative nutritive merits of some vegetables. Study it and the rest of this vegetable seed issue of the CO-OPERATOR, and plan this spring to raise more vegetables for the sake of your family's health and well-being.



## Food Value Comparison of Certain Vegetables

Vegetable	Vitamins				Minerals		
	A	B <sub>1</sub>	C	G	Iron	Calcium	Phosphorus
<b>Perennial</b>							
Asparagus	++	++	+++	++	+	+	+
<b>Greens</b>							
Swiss Chard	+++	+	+++	+	+++	+++	++
Spinach	+++	+	+++	++	+++	+++	++
Beet Greens	+++	++	+++	++	+++	+++	++
Turnip Greens	+++	+	+++	++	+++	+++	++
Kale	+++	+	+++	++	+++	+++	++
<b>Cole Crops</b>							
Cabbage	++	+	+++	+ to ++	+	++	+
Cauliflower	-	++	+++	+	+	++	++
Broccoli	+++	++	+++	++	++	+++	++
Kohlrabi	+	+	+++	+	+	++	++
Chinese Cabbage	+++	+	+++	+	+	++	+
Brussels Sprouts	++	++	+++	+	++	+	+++
<b>Salad Crops</b>							
Lettuce	-	+	+	+	+	++	+
Endive	+++	+	++	+	+	++	+
Parsley	+++	++	+++	-	+++	□	□
Celery	++	-	+	+	+	++	+
<b>Beans and Peas</b>							
Peas	++	++	++	+	+++	++	+++
Snap Beans	++	++	++	++	+++	+++	++
Lima Beans	+	++	+	++	+++	+++	++
Beans, shell	+	++	-	++	+++	+++	+++
<b>Root, Bulb and Tuber Crops</b>							
Beets	-	+	++	+	+	+	+
Carrots	+++	+	+	+	+	++	+
Radishes	-	+	++	+	+	+	+
Rutabagas	-	+	++	+	+	++	+
Turnips	-	+	++	+	+	++	+
Parsnips	-	++	++	+	+	++	++
Salsify	□	□	-	□	+	++	+
Onions	-	+	++	-	+	+	+
Potatoes	-	++	++	-	+	+	+
<b>Corn</b>							
	+	++	++	+	+	- to +	++
<b>Vine Crops</b>							
Summer Squash	++	+	+	+	+	+	+
Winter Squash	+++	+	+	+	+	+	+
Cucumbers	-	+	++	-	-	-	-
Muskmelon	+	+	+	++	-	-	+
Watermelon	-	+	+	+	+	-	+
Pumpkins	++	+	-	+	+	+	+
<b>Solanaceous Crops</b>							
Tomatoes	++	+	+++	+	+	+	+
Peppers	+++	-	+++	+	-	-	-
Eggplant	+	+	+	+	-	-	+

Excellent source — ++++    Good source — ++    Fair source — +    Absent or a poor source — □

★ An adequate intake of vitamins is essential for good health and the ability to ward off infections of many kinds. Vitamin-rich foods are known as protective foods. Vegetables are such protective foods.

Draft rejections indicate a deplorably faulty national diet. Nutrition specialists assert that the American public must, in order to raise present levels of diet to a good nutritional level, double the consumption of green leafy vegetables and must increase by about 70 percent the consumption of tomatoes and other carriers of vitamin C. We have made far too little use of the protective vitamin-rich vegetables that can be so readily raised in home gardens or, if this is impossible, can be obtained the year around either fresh, canned or frozen.

Getting the future generation on a satisfactory nutritional level rests largely with parents, since children acquire rather fixed food preferences and prejudices at a very early age. It is these food habits that retard the popularity of many healthful vegetables and their acceptance in certain sections, even though very popular in others.

Thus in the interest of better nutrition it is the duty of parents to encourage children to like many different kinds of health-giving vegetables and to develop their willingness to add new vegetables to their diet.

Since it is desirable to nearly double our consumption of vegetables, we must not only increase our use of ordinary kinds, but must also add vitamin value by including in our gardens new vitamin-rich kinds as well as old kinds of real merit that have been overlooked or omitted because of habit or unwarranted prejudice. Perhaps improved methods of cooking are necessary to get certain kinds accepted and desired. Research is continually developing improved methods of preparation and preserving which result in finer flavor and more completely conserve the protective and nourishing qualities of many vegetables. Complete information on these new methods and on a variety of old methods of proven worth is readily available through home demonstration extension agents and a number of modern cook books.



★ This very attractive fruit and vegetable display was prepared by students of Arms Academy, Shelburne Falls, Massachusetts. Roswell Miller, agricultural instructor, sent the picture to the COOPERATOR saying it was "proof of the pudding" for many Eastern States vegetable seed items. The Arms Academy FFA Chapter purchased over \$75 worth of Eastern States seed. There were 125 exhibits of vegetables and 50 of other items.

## "Special" for 4-H and FFA

★ Young gardeners on the farms of Eastern States members are invited to participate in a special war garden demonstration sponsored by the Exchange. The purpose will be to find out just how much well-planned gardens can contribute to the farm family's table.

These gardens will be known as *Eastern States Demonstration Gardens*.

Any boy or girl under 18 living on an Eastern States member's farm is welcome to enlist in the *Demonstration Garden* program. These gardens can also be used as 4-H or FFA projects if they are conducted so as to qualify with these organizations. The *Eastern States Demonstration Gardens* are based on seeing how much can be grown in a farm garden and while a junior member of the family is enlisted as the participant, the Exchange's program is open to having other members of the family do

all they can to make the farm's garden pour out a horn of plenty.

The rules are simple:

1. The candidate for growing *Demonstration Garden* "enlists" with an enrollment pledge secured by writing to the EASTERN STATES COOPERATOR.

2. The "enlistment" is an agreement to do the best job the enlistee can in following the garden plan the Exchange prescribes.

3. All supplies of seeds, fertilizer, sprays and dusts used are to be Eastern States, insofar as is possible.

4. The enlistee receives a plan, calendar, guide, record book and diary to be kept in full detail while the garden is being planted, cared for, harvested and used. This is the all-important feature of the *Demonstration Garden* project.

5. The completed record forms are to be mailed to the EASTERN STATES COOPERATOR and the information they contain is to be used in analyzing and reporting the results of the demonstrations.

6. *Demonstration Gardens* are to be subject to inspection — like soldiers — during the growing season and authorized representatives of the Exchange will visit the demonstrations and file reports on what they observed.

7. On the basis of what the family was supplied from the garden, what the field inspection reported, and how well the records of the project were kept, the Exchange will select 10 star gardeners and bring them to Springfield for an educational visit to the Eastern States Plant Industry Project . . . and there'll be fun and inspiration aplenty connected with receiving honors in this important wartime demonstration.

★ This isn't the usual kind of junior contest. The Exchange is not interested in coaxing hundreds of young folks into buying Eastern States seeds and growing all sorts of gardens with a lot of whoopala. This is a serious and practical demonstration which boys and girls can do, we believe, just as well as their elders who are too busy these days to tackle any extras.

The *Demonstration Gardens* are in three units which fit together to make an all-out war garden. You can enlist in one, two or all, just as you please. The first unit is the smallest requiring 500 square feet for early vegetables. Rows may be as short or long as the demonstrator desires, but the arrangement, distances between rows, and succession of plantings of

the plan are to be followed specifically. Choice of varieties for each kind of vegetable is left to individual preference.

The second unit is larger; requires 1500 square feet, and includes the mid-summer vegetables. Still more area — 3000 square feet — is required for the third unit. It involves the late vegetables, many of them vining.

☆ **What counts** is: How much good eating did the family get out of your *Demonstration Garden*? Take its measure in fresh, canned, pickled, dried, or stored eatables. The *Demonstration* record forms have space to keep a simple tabulation of your garden's yield. Since the purpose of a family garden is to supply food for home use, calculating yield of these *Demonstration Gardens* will be a simple matter of adding up the persons, times the servings, for each vegetable used.

☆ **He plowed up \$262** when he won first place and that much prize money in the eastern division of the 1942 National Plowing Contest — that's what William Hawley, 19, of Apponaug, Rhode Island, did just before he set out with Uncle Sam's navy to plow the ocean blue.

But just for good measure he also stepped up and took second honors in the National Farm Management Contest of the National Farm Youth Foundation and thus rang up a total cash prize record of \$512.

Bill Hawley studied vocational agriculture under Alfred E. Hersey at Lockwood High School in his home town; then freshmanned in "ag" at Rhode Island State College; and this fall worked at the Eastern States service warehouse in Olneyville until enlisting.

He began his commando raids on prize competitions as a high school junior when he joined a 4-H poultry club and teamed up with Charles Angell to take the state's demonstration championship and win a trip to the NEPPCO show in Harrisburg, Pennsylvania. His vocational instructor steered his interest toward the Youth Foundation courses in farm machinery and management. He became president of his class . . . won the New England Plowing Contest.

That was in August and to participate in the eastern division of the con-

test he went to Quebec, Canada, where he plowed, plowed and won!

Bill wants to farm — may God speed the day he can.

## *Cooperatives* HAVE PROBLEMS

☆ **Seven feed items** were eliminated beginning December 16, 1942, in order to enable Eastern States production and loading facilities to produce mixed rations which are much more significant to the war effort of producing eggs and milk. Gone from the Exchange's service are:

- Dog Feed
- Turkey-Breeder Mash
- Ground corn and oats
- Dried skim milk
- Alfalfa leaf meal
- Barley
- Crimped oats

What will make many members most unhappy is the fact that the use of critical materials such as alfalfa leaf meal, meat and fish, so badly needed in poultry mashes, can no longer be justified in the production of *Eastern States Dog Feed*. Furthermore by discontinuing so many 25s of dog feed, we increase production of dairy and poultry feed 70 tons a day. The disappointment to dog owners is just one of the many headaches War makes.

Corn meal and ground oats — as individual ingredients — continue to be available for those who have a real need for ground corn and oats. Many members using ground corn and oats for horses with poor teeth should consider *Eastern States Fitting Ration*. When used for dairy cattle, one of the dairy feeds should be selected or where it is being fed to hogs, *Eastern States Hog Meal* will be more effective.

*Eastern States Turkey-Breeder* pellets can effectively replace mash for turkey breeders.

Because of low consumption during off months, *Turkey-Start*, pellets and mash, will not be available October through January, nor *Turkey-Breeder* pellets, July through November. *Turkey-Grower* will be available during the entire year.

## USED BAGS

### Price Schedule

#### Prices effective on EASTERN STATES USED FEED BAGS

Because of a government order from the OPA, the maximum price that can be allowed for Eastern States 10-ounce burlap bags follows:

Size Printed on Bottom of Bag	Price
44.....	11.4¢
46.....	12.0¢
49.....	12.6¢
52.....	13.8¢
54.....	14.4¢
58.....	15.6¢
62.....	16.8¢

Eastern States branded heavy cotton bags —

43.....	12.5¢
45.....	13¢
48.....	13.5¢
51.....	14.5¢

Eastern States branded Osna-burg bags —

43.....	13.9¢
45-0.....	14.7¢
48-0.....	15.5¢
51-0.....	17.1¢

#### FERTILIZER BAGS

Burlap..... 8¢

Your local representative or regional warehouse will accept your bags and return them to Burwick or Broder for you (whichever you choose). You may return as few as 10 or as many bags as you wish through them.

Tag the bundle plainly with the name of your representative (or warehouse) on the front of the tag; put your name on the back, together with the number of bags in the bundle. Get shipping tags from your representative or warehouse. Feed, fertilizer, and potato bags may be shipped together.

These are the only authorized Eastern States bag houses:

**BRODER BAG COMPANY**  
25 Superior Street, Buffalo, N. Y.

**CARL BURWICK & COMPANY**  
81 Thomas St., Worcester, Mass.

**CARL BURWICK & COMPANY**  
314-324 Grote St., Buffalo, N. Y.

# We Take Pen In Hand

Dear Editor.

## THE ELECTRIC PIG BROODER



MAKE IT YOURSELF AND MAKE MONEY

★ Your little pigs would like you to read this leaflet . . . see suggestion below.

★ Having just finished reading the November issue of the COOPERATOR, I am happy to be able to congratulate you on it. It's a splendid publication. However, writing frankly, my enthusiasm for it is dampened in only one regard. In your article on the pig brooder you fail to mention plans for a pig brooder which were developed here at REA and which are available to farmers everywhere by writing for them.

As you probably know, we have done a great deal of work in preparing and distributing plans for home-made equipment. Recently we redesigned

many of our plans so that they would not use critical materials and our nearly a million farmers who belong to our 800 cooperatives are making very good use of them . . . — *Allyn A. Walters, information division, Rural Electrification Administration, St. Louis, Missouri.*

If

If you've never made the pathway  
Of some neighbor glow like sun —  
If you've never brought a bubble  
To some fellow's heart with fun . . .

If you've never cheered a toiler  
That you've tried to help along,  
Will you tell me what you're here for  
In this lovely land of song?

If you've never made a comrade  
Feel the world a sweeter place  
Just because you've lived within it  
And had served it with thy  
grace . . .

If you've never heard a woman  
Or a little child proclaim  
A God's blessing on your bounty —  
You're a poor one at the game!

— *Christie Carpenter,  
Cochran, Pennsylvania*



★ Charles Emerson was 76 when he grew these Eastern States peas in a big garden on the Ralph Emerson farm in Turner, Maine. Raymond Washburn of the warehouse service is doing the admiring.

★ I have been an interested reader of your fine paper for some time and greatly enjoy its material. However, I have a correction which is for the good of the order if I may be allowed to express it. Continually you print the name of our famous variety of fowl as New Hampshire Reds. When they were admitted to the American Standard, they were named New Hampshires — without the Red, for they are a chestnut color. Many still call them Reds, but seeing the name correctly used will be one means of forming the right use of the name. — *A Reader.*

★ After looking over the November issue of the COOPERATOR I am moved to express my appreciation for the monthly visits of this unusually attractive organ. You use excellent, well-posed pictures on good paper and have been wise enough to select a good printer.

I am only a plain dirt gardener, but I enjoy reading the magazine and get good results from your products. — *Harry W. Rowe, assistant to the president, Bates College, Lewiston, Maine.*

★ I was very much interested in the article which appeared in the November issue of the EASTERN STATES COOPERATOR entitled "You Can Grow Pork, Too."

However, you have put our mailing room in a rather embarrassing position in that the supply of our Leaflet No. 188 "Swine Production" is practically exhausted. Also, our publications are not sent out of state free of charge.

We have no objection to your mentioning our publications, provided we have a supply on hand, and you call attention to the fact that there is an out-of-state charge of 5¢ per copy, with one or two exceptions. The cost of "Swine Production," however, is 10¢. — *Earle S. Carpenter, secretary of Extension Service, Massachusetts State College, Amherst, Massachusetts.*

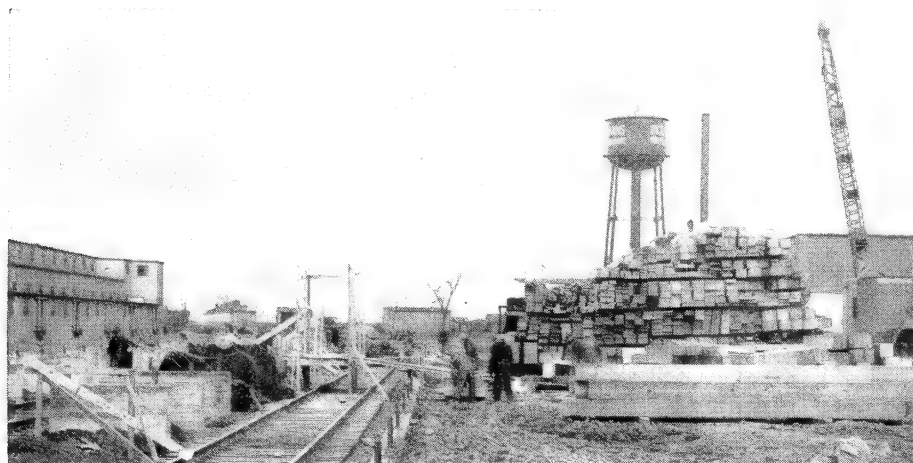
★

### NOTICE:

The Exchange address is now —  
Eastern States Farmers' Exchange  
West Springfield, Mass.

# The SERVICE Bulletin

☆ **Construction** is now under way on a second car loading train shed at the Eastern States mill in Buffalo. It is mighty good business for members to own this new property for, by increasing the mill capital investment about 10 percent, facilities are being added that will make it possible to step up production nearly 20 percent. This new construction will permit operations at Buffalo to be "around the clock."



☆ Compare that stack of lumber with the height of the men constructing the new loading shed at the Eastern States Mill in Buffalo and you get an idea of what a whopping big roof it takes to cover 39 freight cars.

☆ **There ought to be an "E"** for Eastern States. The Army-Navy "E" is awarded, with fitting ceremonies, to war goods factories which meet production quotas. Well, your Eastern States Mill is kicking quotas into cocked hats these days — and if it were guns instead of feed, we'd have our "E."

Take October, for instance. In October, 1941, Eastern States members — the fellows who are helping to keep the army and navy and hard-working civilians supplied with eggs and milk — asked the mill to produce 40,354 tons. Comes October, 1942, and the mill staff strained and sweat to the tune of 49,578 tons! An increase of nearly 25 percent.

Hard work and expanded production counts these days. Farmers and their cooperatives richly deserve some sort of "E" flag such as many industrial plants are flying. However, Eastern States people, like so many others, will not allow the lack of an "E" to keep them from continuing to strain every muscle in the tremendous task we have.

Priority for this new construction has been issued by the War Production Board because of the extremely important place dairy, poultry and livestock feeds hold in the production of much needed vital human foods.

As you have known for some time, the Exchange's petition for construction of a complete mill at Huron, Ohio, was not granted because it would have required too great an amount of steel and other scarce materials. In the new train shed at Buffalo wood is being used where steel would normally be specified and the conveyor belts will be made of canvas instead of rubber. A lot of rubber is being saved for there will be three miles of canvas belting!

This new train shed will be 900 feet long. It will be three tracks wide for 400 feet and two tracks wide for the remaining 500 feet.

It will provide undercover placement for 39 cars to be loaded, supplemented by a covered position for unloading nine incoming cars of sacked feed. When this new facility is completed, it will be possible to load, at your Buffalo mill, 90 cars at one time — 82 of them under cover.

Lumber for this new Eastern States cooperatively owned facility came from the great fir mills at Bellingham, Washington. Nearly 30 carloads of it spanned almost the entire continent to make more eggs and milk possible for the fighters, the workers and our overseas Allies. This new construction requires about 750,000 board feet of lumber and the builders hope to have it completed about May 1.

As this COOPERATOR goes to press, much of the framework is up and some of the sheathing applied.



☆ The Army has its WAACS and the Navy its WAVES — but did you know Eastern States has its W-A-Y-S, too? Yes, sir, Women Assisting Your Service at the Exchange's warehouses. At West Springfield the WAYS girl is Miss Ruth White, shown writing up a poultry feed order for William Abraham of Feeding Hills, Massachusetts.

# The Editor's Journal

## MEET THE SMITHS of New Hampton, New Hampshire

With typical Yankee energy, the members of this New England family are patching their old clothes, growing their own food, making what they have do "for the duration."



HOW AMERICA LIVES

Picture and story of an Eastern States member's family, appearing in the December issue of *Ladies' Home Journal*.

☆ **Meet the Smiths** of New Hampton, New Hampshire, in the December *Ladies' Home Journal* — and you'll meet a genuine Eastern States family. Leslie Smith has long been a member of the Exchange. The *Journal* story that features the way the Smith family lives, works and enjoys life is one of a series this tremendously popular magazine has been featuring under the title "How America Lives."

Much of the story is told in pictures. One shows the Smith farm house which was painted with Eastern States two years ago. This cooperative's feed, fertilizer, seed, spray materials, flours and cereals contribute to helping the Smiths live well on their very American fruit farm. It gives us sort of a thrill to find one of our neighbors selected for so important a spot in the limelight of major magazine publicity.

☆ **Lights were turned off** — but ideas were turned on — when a 55-minute blackout collided with the time for Dr. E. A. Perregaux's talk at the annual meeting of Connecticut Poultry Producers, Inc., November 17. It was about the plan to consolidate this association with two Connecticut auctions that Dr. Perregaux was speaking and members could see what he meant even in the dark. The plan would unite a network of collection and distribution enterprises centering in Hartford and New Haven, thus conserving tires, gas, time and equipment. It would round out a grading, packaging, wholesaling market service with a foot in both important outlet doors: auction and branded package wholesale.

Balloting on a referendum of this plan which the directors of the three cooperatives are referring to their members showed 231 in favor, 17 opposed.

On 1941 business the association paid in December a dividend of 1.8 percent; will pay 3.2 percent later, on 1942 business. Leo A. Grouten of Farmington was reelected president; H. W. Bermender is the manager.

☆ **Among the books** that writers are writing and publishers are publishing to help make the farmers rich like the writers and publishers are these that have been brought to our dignified editorial attention:

**Weed Control** — by Robbins, Crafts and Raynor, experiment station botanists; published by McGraw-Hill Book Company, New York City;



☆ **Your editor** thinks gardeners and housewives haven't done right by kohlrabi. It is one of the cleanest, easiest-to-grow vegetables. Its flavor is mild — slightly on the order of turnips and cabbage — yet a flavor that is good for its own qualities. It is delicious used raw as a novelty added to "spring" garden salads. Diced or sliced and cooked as you would turnips or carrots, it is also very good — especially when coated with butter just before serving.

price, \$5.00. An editorial staff member eyed this whopping 518-page volume and remarked that if farmers knew that much about weeds they'd be scared out of business. Anyway the authors have produced a mighty impressive textbook and manual — and it's our guess a lot of farmers are mad enough at their weed problems to spend a five-spot to learn how to "rub 'em out" in the most expert ways.

☆ **Improved Milk Goats**, by Will L. Te Walt, Orange Judd Publishing Company, New York City; price, \$1.50.

A little book just full of goats — their breeds, housing, care, dairy methods and exhibition. Not a prize piece of literature, but fundamental and to the point.

☆ **Just a little** item in regard to my results with 200 Leghorn pullets. I bought them July 21, 1941, for \$1.25 apiece. They were just starting to lay. I put them in the houses and worked with them to get them used to the change of places. They started right off to increase in production. They were fed Eastern States feed all the time — all they wanted. I keep a record of everything. I have used your feed for seven years and find it will get results every time.

I just have a small place and have time to look after my garden and chickens and flowers as I am a cripple and use crutches. So this gives me something to do. Also, it makes a little money — a profit of \$651.12 after deducting feed cost. We had all the eggs we wanted to use in the home for the four in our family.

I put in about an average of three hours a day with my chickens. — R. E. Riley, *Christiana, Pennsylvania*.

## No Extras

There are no "extra" issues of this *vegetable seed number* of the COOPERATOR.

Only enough to supply the membership mailing list are being printed. A condensed, abbreviated edition will be published as a booklet and used in answer to requests for Eastern States vegetable seed information made to the field service and warehouses or the headquarters office.

If you loan your January copy, better "keep a string" on it . . . you can't get another one this year.

# VEGETABLE SEED ORDER

to  
**EASTERN STATES FARMERS' EXCHANGE**  
 P. O. Box 1482  
 WEST SPRINGFIELD, MASSACHUSETTS



Date of Order \_\_\_\_\_

Name } Mr.  
Mrs.  
Miss \_\_\_\_\_  
 Please Print Plainly

Street (or R.F.D.) \_\_\_\_\_

Post Office \_\_\_\_\_ State \_\_\_\_\_

R.R. Station \_\_\_\_\_ State \_\_\_\_\_

Name of local Eastern States Representative \_\_\_\_\_

Method of Shipment Desired (check one)

In E.S. Rep.'s Feed Car  Parcel Post

Direct by Freight  Express

(If by express or parcel post on shipments over 50 lbs., member pays transportation cost extra.)

**Send payment with order and avoid C.O.D. Charges**

Prices to apply are those in effect on postmarked date of this order.

Shipping date desired \_\_\_\_\_

**Order only varieties and sizes as specified. Keep a copy of this Order for your own record.  
 If supplies of any varieties ordered are exhausted, will you accept our substitutes?  
 This order is given and accepted in accordance with conditions printed on the back hereof.**

Column 1

Column 2

No. of Pkg.	Size of Each	Indicate Variety Desired Where More Than One Is Available	Unit Price	Amount	No. of Pkg.	Size of Each	Indicate Variety Desired Where More Than One Is Available	Unit Price	Amount
		ASPARAGUS SEED ***					Brought forward from Column 1		
		ASPARAGUS ROOTS ***					CHARD **		
		BEAN ***							
							CORN - SWEET ***		
		BEET **							
							CORN - POP ***		
		BROCCOLI *							
		BRUSSELS SPROUTS *					CUCUMBER ***		
		CABBAGE *							
							DANDELION **		
							EGGPLANT *		
		CAULIFLOWER *					ENDIVE **		
		CARROT **					KALE ***		
							KOHLRABI ***		
		CELERY *					LETTUCE *		
Total of Column 1					Total of Columns 1 and 2				

**SEND PAYMENT WITH ORDER TO AVOID C.O.D. CHARGES**

Column 3					Column 4				
No. of Pkg.	Size of Each	Indicate Variety Desired Where More Than One Is Available	Unit Price	Amount	No. of Pkg.	Size of Each	Indicate Variety Desired Where More Than One Is Available	Unit Price	Amount
Brought forward from Column 2					Brought forward from Column 3				
		MUSKMELON ***					SPINACH **		
		WATERMELON ***							
							SQUASH ***		
		ONION SEED***							
		PARSLEY **					TOMATO *		
		PARSNIP ***							
		PEA **							
							TURNIP ***		
		PEPPER *			Total of the entire order				
					<p><b>Do Not Write in This Space.</b></p> <p>Questions will be answered more promptly if submitted separately.</p>				
		PUMPKIN ***							
		RADISH **							
		RUTABAGA ***							
		SALSIFY ***							
Total of Columns 1, 2 and 3									

- \* Can be shipped Jan. 1
- \*\* Can be shipped Feb. 1
- \*\*\* Can be shipped Mar. 1

Orders requesting early shipment and including items in different groups will be split and each part shipped at earliest date possible as indicated.

This order is subject to acceptance by the West Springfield office of the Eastern States Farmers' Exchange and after such acceptance is further subject to cancellation or prorating by the Exchange in event of seed crop failures, strikes, fires, embargoes or other contingencies beyond the control of the Exchange. It is further subject to change by the buyer in event of necessary change in his cropping plans upon presentation of satisfactory explanation in writing to the Exchange office in West Springfield and if desired kinds are available.

The Eastern States Farmers' Exchange has exercised all reasonable care and precautions in the production, preparation and distribution of this seed, but cannot be responsible for the operation of Nature's laws, nor control the conditions under which it is later stored, handled, planted or grown; so therefore gives no warranty express or implied concerning the description, quality, productiveness or condition of the resulting crop and shall in no case be liable for an amount greater than the amount actually paid for the seed. Statements of germination, description and other information are given as a report of our tests, observations and advice. Orders cannot be accepted or filled on any other terms.

The member agrees that shipment will be made and accepted under the following condition:

**CONFIRMATION NOT ISSUED IN DETAIL. KEEP A COPY OF YOUR ORDER SO YOU CAN CHECK OUT CONTENTS OF YOUR SHIPMENT.**





# Control Calendar For Vegetable Pests

THIS CONTROL CALENDAR is the result of combining most of the recommendations from the various control calendars available through experiment stations, agricultural colleges or extension services in the Exchange territory.

We have tried to have these recommendations conform with all limitation and conservation orders that have been issued up to the time this went to the printer. New orders or amendments to old orders may require changes in these recommendations. We shall attempt to keep you informed of any changes as soon as they are made.

Remember there are no substitutes for THOROUGH COVERAGE, TIMELINESS, GOOD EQUIPMENT, FIELD SANITATION — these four points must be considered before any spray or dust can be expected to give effective results. This brief calendar can serve only as a guide; for more specific details relative to spraying or dusting problems consult your state recommendations, your extension agent, or write the West Springfield Office.

**APHIDS** — *Plants attacked:* bean, cabbage, cauliflower, turnip, radish, broccoli, Brussels sprout, melon, cucumber, squash, eggplant, lettuce, pea, pepper, potato, spinach. *Control:* Spray with *nicotine sulfate*, ½ pint, and two pounds soap in 50 gallons water, or dust with *rotenone dust*,\* 4% *nicotine lime dust*, *rotenone copper dust*,\*.

**BEAN BEETLES** — *Plants attacked:* bean. *Control:* Dust with *rotenone dust*,\* *rotenone copper dust*,\*.

**CUTWORM, ARMY WORM** — *Plants attacked:* asparagus, cabbage, cauliflower, turnip, radish, broccoli, Brussels sprout, corn, pea, pepper, tomato. *Control:* Dry mix 5 pounds of wheat bran, ¼ pound *Paris green*. Dissolve one pint molasses in about 3 quarts of water, add dry mixture and stir vigorously. The bait should be damp but not wet and should be broadcast at dusk, 20 pounds to the acre, before plants are set or just as seed is sprouting.

**ASPARAGUS BEETLES** — *Plants attacked:* asparagus. *Control:* On cutting beds dust with *rotenone dust*,\* When cutting season is over spray with *lead arsenate* or *calcium arsenate*, one pound in 50 gallons of water, and add ½ pound *goudac*, or dust with a mixture of 20 parts *lead arsenate* or *calcium arsenate* and 80 parts *spray lime*.

**FLEA BEETLE, BLISTER BEETLE** — *Plants attacked:* beet, eggplant, pepper, potato, tomato. *Control:* Dust with *rotenone dust*,\* *rotenone copper dust*,\* A spray of one pound *calcium arsenate* in *Bordeaux mixture* (2-2-50) is also effective.

**WIREWORM** — *Plants attacked:* beet, carrot, onion, potato. *Control:* Late fall plowing and frequent cultivation reduce population. On small areas it may be economical to distribute trap baits of potato, and when the worms have been attracted kill them by hand or by soil fumigation with *calcium cyanide*.

**GREEN CABBAGE WORM, CABBAGE LOOPER, DIAMOND BACK MOTH, ZEBRA MOTH** — *Plants attacked:* cabbage, cauliflower, turnip, radish, broccoli, Brussels sprout. *Control:* Dust with *pyrethrum* or *rotenone dust*,\*.

**CABBAGE MAGGOT** — *Plants attacked:* cabbage, cauliflower, turnip, radish, broccoli, Brussels sprout. *Control:* Soak soil about roots with *corrosive sublimate*, one ounce in 10 gallons of water and apply ½ cupful to each plant or dust roots and stems with *calomel gypsum dust* at the time of transplanting and make three heavy applications around stem at weekly intervals.

**TARNISHED PLANT BUG** — *Plants attacked:* cabbage, cauliflower, turnip, radish, broccoli, Brussels sprout, celery, cucumber, melon, squash, onion, potato. *Control:* Spray with *nicotine sulfate*, one pint, and 3 to 4 pounds of soap in 100 gallons of water, or dust with *rotenone dust*,\* Make applications 3 or 4 times at weekly intervals.

**SWALLOWTAIL CATERPILLAR** — *Plants attacked:* celery, parsnip. *Control:* Spray with *calcium arsenate*, one pound in 50 gallons of water, or dust with *N-C-A dust* for both this pest and blight.

**EUROPEAN CORN BORER** — *Plants attacked:* corn. *Control:* Dust with *dual-fixed nicotine dust*. Apply when borers are hatching and 3 or 4 times at weekly intervals thereafter. Burn or plow under stubble and fodder in fall. Break out and destroy tassels while borers are still in them.

**CORN EARWORM** — *Plants attacked:* corn. *Control:* Inject *white mineral oil* into tip of husk when silk starts to turn brown or clip off tip of husk and silk when silks start to turn brown. Either treatment must be done after ear has been properly pollinated.

**STRIPED, SPOTTED CUCUMBER BEETLES** — *Plants attacked:* cucumber, melon, squash, pumpkin. *Control:* 1 lb. *calcium arsenate* in *Bordeaux Mixture* (2-2-50).

**SQUASH BUG** — *Plants attacked:* Cucumber, melon, squash, pumpkin. *Control:* Spray with *nicotine sulfate*, one pint in 50 gallons of water. The spray is effective only on very young bugs. Hand pick and destroy adult bugs or place small pieces of board on the ground near the plants to serve as traps, lift boards early in the morning and destroy bugs.

**SQUASH VINE BORER** — *Plants attacked:* melon, squash, pumpkin. *Control:* Spray with *nicotine sulfate*, one quart in 50 gallons of water. Apply 3 or 4 times at weekly intervals when borers are hatching.

**ONION MAGGOT** — *Plants attacked:* onion. *Control:* Spray with *Bordeaux mixture* (4-4-50) to which has been added 1½ gallons *dormant spray oil*. Apply 3 or 4 times at weekly intervals when flies appear.

**ONION THRIP** — *Plants attacked:* onion. *Control:* Spray with ¾ pint *nicotine sulfate* and 2 pounds soap in 50 gallons water.

**CARROT RUST FLY** — *Plants attacked:* carrot, parsnip. *Control:* Dust with *rotenone dust*,\* *rotenone copper dust*,\* Apply 3 or 4 times at weekly intervals when flies appear.

**WEBWORM** — *Plants attacked:* beet, parsnip. *Control:* Spray with *calcium arsenate*, 1½ pounds, and 1½ pounds *spray lime* in 50 gallons water or dust with *N-C-A dust*.

**COLORADO, THREE-LINED POTATO BEETLES, FLEA BEETLE, BLISTER BEETLE** — *Plants attacked:* potato. *Control:* Spray with *calcium arsenate*, 1½ pounds in 50 gallons water, or dust with *N-C-A dust*. The *calcium arsenate* may be combined with *Bordeaux mixture*. Apply when insects appear and repeat as needed.

**LEAFHOPPERS** — *Plants attacked:* potato. *Control:* Spray with *Bordeaux mixture* (5-5-50). If infestation is heavy, add ½ pint *nicotine sulfate*, or if infestation is light, dust with 20-80 or *N-C dust*.

**WHITE GRUB** — *Plants attacked:* potato. *Control:* Plow in late fall. Do not plant potatoes following sod if grubs are numerous.

**HORNWORM, CORN EARWORM** — *Plants attacked:* tomato. *Control:* Spray with *calcium arsenate*, one pound in 50 gallons water. Apply when insect appears. Hand pick on small areas.

**COMMON STALK BORER** — *Plants attacked:* tomato. *Control:* Remove and destroy all weeds. Split stem with knife and destroy borer.

**GARDEN SLUGS** — *Plants attacked:* lettuce, potato. *Control:* Use poison bait as for CUTWORM.

**GARDEN SPRINGTAIL** — *Plants attacked:* beet, spinach. *Control:* Treat same as APHIDS.

**SPINACH LEAF MINER** — *Plants attacked:* beet, spinach. *Control:* Destroy infested plants or remove infested leaves. Destroy all weeds in the immediate vicinity.

Wherever *rotenone copper*,\* 20-60-20, or *N-C-A dust* is recommended and used, the insects referred to, as well as the more common fungus diseases, are controlled. Therefore to conserve space, 20-60-20, *N-C-A*, and *rotenone copper dust*\* will not be mentioned in the following.

**EARLY, LATE BLIGHT (LEAF SPOT), POWDERY MILDEW, SCAB, ANTHRACNOSE, DOWNY MILDEW, FRUIT ROT** — *Plants attacked:* tomato, cucumber, melon, squash, pumpkin. *Control:* Spray with *Bordeaux mixture* (2-2-50), *neutral copper fungicide*, 5 pounds in 100 gallons water, or dust with *N-C dust*. Applications should be made at 10 to 14 day intervals beginning before the disease usually makes its appearance.

**POWDERY MILDEW, RUST** — *Plants attacked:* pea, asparagus. *Control:* Spray with *wettable sulfur*, 4 to 6 pounds in 100 gallons water, or dust with *dusting sulfur*. On peas wait until mildew appears and repeat as needed. On asparagus make applications three weeks after cutting season at 18-day intervals.

**EARLY, LATE BLIGHT (LEAF SPOT), TIP-BURN, CROWN ROT** — *Plants attacked:* celery, potatoes, rhubarb. *Control:* Spray with *Bordeaux mixture* (5-5-50), *neutral copper fungicide*, 6 pounds in 100 gallons water, or dust with *N-C dust*. Applications should be made at 10 to 14 day intervals after plants are well started.

**WILT** — *Plants attacked:* cucumber, melon, pumpkin, squash. *Control:* Control cucumber beetles and destroy immediately all diseased plants.

**SMUT** — *Plants attacked:* corn. *Control:* Remove and destroy boils before they burst. Practice field sanitation.

**ASTER YELLOWS** — *Plants attacked:* carrot, lettuce. *Control:* Remove and destroy all weeds in the immediate vicinity. Control insects, especially LEAFHOPPERS.

**GRAY MOLD FRUIT ROT** — *Plants attacked:* eggplant. *Control:* Remove withered blossoms when harvesting fruit.

**NECK ROT** — *Plants attacked:* onion. *Control:* Control insects. Cut tops close, allowing them to mature completely. Cure well before storing in slatted crates in cool, well-ventilated room.

**MOSAIC** — *Plants attacked:* pea, potato, tomato. *Control:* Control APHIDS, LEAFHOPPERS, and weeds.

**BLOSSOM END ROT** — *Plants attacked:* pepper, tomato. *Control:* Avoid dry locations. Maintain as uniform a moisture content as possible.

**LEAF ROLL, SPINDLE TUBER** — *Plants attacked:* potato. *Control:* Use certified seed. Control APHIDS, LEAFHOPPERS.

**DOWNY MILDEW** — *Plants attacked:* spinach. *Control:* Avoid excessive watering and when necessary, water in the morning.

**FERN LEAF, STREAK** — *Plants attacked:* tomato. *Control:* Destroy all weeds in the immediate vicinity. Control insects and isolate from tobacco and potatoes.

★ The serious rotenone\* shortage has made it necessary to limit the crops upon which it can be used. It must be used for the protection of food crops other than tobacco, cranberries, eggplant, cucumbers, melons, squash, pumpkins, onions, peppers and sweet corn. Therefore, on these crops the alternate treatment must be used.

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**\*\*  
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**T**HERE is a demand for more food from gardens, fields, flocks and herds. With labor short and equipment rationed that is a tough order. But filling tough orders wins wars.

Let's concentrate here on your garden. It must be a good one if you are to eat well. Be sure to protect your investment in seed, fertilizer and labor by thoroughly controlling insects and diseases through spraying or dusting.

\*\* The color photo above was taken by E. W. Kestner of the Exchange's publicity staff at the roadside stand of farmer David Cesan of Agawam, Massachusetts.

Your insecticides and fungicides can be purchased with confidence through Eastern States Farmers' Exchange. It follows closely work done by the colleges and experiment stations. It purchases *selectively* for higher value-in-use on your farm. The Eastern States Buffalo laboratory checks samples constantly against delivery specifications.

Your Eastern States spray and dust material program is complete for vegetable men, potato growers and orchardists.

Your *home garden* can be an important part of the **FOOD FRONT**. Make it a good one.

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