farm Radio News

UNIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Illinois Crop Performance Day Set For January 26

URBANA--Latest results of crop improvement research will be reported January 26 at the 1960 Illinois Crop Performance Day at the University of Illinois, Urbana. The program begins at 9:30 a.m. in Room 112 Gregory Hall.

According to extension agronomist W. O. Scott, this year's program will include reports on the commercial corn hybrid performance tests, sorghum hybrid research, experimental hybrids, alfalfa recommendations and soybean and oat variety tests. Special reports will also be made on corn and lawn grass diseases by University plant pathologists.

The program is designed for all persons interested in crop improvement and seed production. Adjournment is scheduled for 3:00 p.m. This date falls just one day before the Illinois Custom Spray Operators' School on January 27-28.

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FOR IMMEDIATE RELEASE

Winter Weather and Poor Sanitation Increase Swine Dysentery

URBANA--The stress of cold, rainy weather and crowding combined with poor sanitation makes swine a tempting target for vibrionic dysentery at this time of year, according to Dr. E. I. Pilchard, University of Illinois College of Veterinary Medicine.

Vibrionic dysentery, often called bloody flux or black scours, can strike swine at any age and at any time. It can spread quickly. It can kill large numbers of animals in a herd.

In newly infected animals, the dysentery droppings are watery and dark because of the presence of blood. In animals with advanced infections, the droppings are often black. Shreds of intestinal tissue are sometimes passed.

Death losses from vibrionic dysentery vary greatly. If it strikes while other infectious diseases are present, losses may reach 100 percent. Usually, however, some swine die several days to two weeks or longer after the disease attacks. The remainder will recover, while a few may have been naturally immune and remained healthy throughout the attack.

Dr. Pilchard recommends that farmers review their sanitation and disease control programs to be certain that they are keeping all possible sources of contamination in mind. Not only may infected swine be the source of an outbreak, but apparently normal brood sows have been suspected of being carriers. In addition, contaminated pens, sheds, lots and pastures remain a source of infection for long periods after sick animals are removed.

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To prevent and control vibrionic dysentery, farmers should avoid introducing new stock into a herd previously exposed to this disease, or onto areas recently vacated by infected animals. Herd additions from unknown sources or from sources with high animal traffic should be isolated two or three weeks in an area where drainage is away from the home herd.

If vibrionic dysentery does break out, healthy animals should be moved to clean surroundings. Continued circulation of infective material within the sick group can be reduced by placing swine on a floor that can be frequently and properly cleaned.

Careful attention to provide an adequate, clean water supply, a bland ration, such as soaked oats or rolled oats, and proper shelter will contribute to swine comfort, body resistance and recovery.

Recovered swine should not be retained as breeding stock. They are usually unthrifty. They are not immune to another attack of dysentery infection and may remain carriers and spreaders of the disease.

Early diagnosis and treatment by a veterinarian will pay for itself many times over by cutting losses, according to Dr. Pilchard. Immediate treatment of the infection reduces the severity of the attack and, along with supportive treatment, increases the chances for recovery of the affected swine.

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FOR IMMEDIATE RELEASE

Illiac to Help Animal Scientists

URBANA--The Illiac, long famed for quickly solving intricate math problems, will help University of Illinois animal scientists evaluate their Moorman Research Farm breeding studies.

The breeding program, explains H. W. Norton, will add to our basic knowledge of swine genetics. It will provide further information on how to attempt genetic improvement of swine, and what rate of progress might be expected.

Norton, a geneticist and statistician in the College of Agriculture, heads the Moorman Farm swine breeding program. Now under construction, the farm is being established with a $200,000 grant from the Moorman Manufacturing Company, Quincy, Illinois.

Norton reports that Durocs and Yorkshires are the two breeds selected for the breeding program. They were chosen primarily because they produce large litters at weaning time. Litter size at weaning is especially important because the breeding groups are unusually small. Each group will contain only 6 boars and 12 gilts.

Researchers will select hogs used in the breeding program on the basis of three factors: (1) litter weight at 154 days, (2) feed consumption from birth to 154 days and (3) backfat thickness. If possible, they will also include carcass value.

Norton will assign each factor a numerical value, such as 10, 15 or 20. The exact amount depends on how the factor affects the pigs' market value. And it depends on the extent to which the factor is inherited.

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Norton will combine these values into an "index," or score. This score will serve as the criterion for hog selection.

Researchers will develop five distinct lines of hogs. They include:

Line 1: Purebred Durocs making the highest scores.

Line 2: Purebred Durocs selected regardless of score. They'll serve as a control group. Researchers will compare Line 1 hogs with Line 2 hogs to check progress in selecting hogs having high scores.

Line 3: Purebred Yorkshires making the highest scores.

Line 4: Purebred Yorkshires selected at random as a control group.

Line 5: A crossbred line produced by a first cross of Durocs and Yorkshires and continued as a closed group. Norton will also select animals in this line according to their scores.

Line 5 will show whether progress is more rapid with crossbreeding than when starting with purebred stock.

There will be three separate groups of each line. These groups will provide the necessary statistical basis for evaluating the effectiveness of selection.

Each group in each line will be subjected to different environment and management conditions. This procedure will enable researchers to study effects of physical conditions on the hog's production and growing performance.

At the same time, researchers can see which environmental and management conditions are best for raising hogs. Some of these conditions are light, heat, ventilation, floor space per pig, manure disposal systems and feeding equipment.

As expected, evaluating these data will be a gigantic task. But Norton is preparing the data so that he can easily feed it into the Illiac. The Illiac will analyze the data to evaluate the effects of selection and environmental factors.

The breeding program, of course, is a long-range project. It will probably continue for at least 10 years. However, some results, especially from management studies, will be ready within a few years.

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FOR IMMEDIATE RELEASE

Illinois Vegetable Growers Plan Meet January 14-15

URBANA--New developments in the mechanical harvesting of vegetables will be one of several featured topics at the Illinois State Vegetable Growers Association meeting in Joliet January 14 and 15.

A. Lee Towson, Jr., associated with the Chisholm-Ryder Company, Niagara Falls, New York, will present this report, announces Norman F. Oebker. Oebker is the University of Illinois extension vegetable crops specialist.

Several other topics during the meeting will include "A Growers' Viewpoint on Pre-Packaging"; "Important Market Diseases of Vegetables"; "The Future of Agricultural Labor"; and the "Future Role of a Commodity Organization and Labor Problems."

Oebker adds that special emphasis will be placed upon marketing and labor in vegetable-growing.

The meeting will be held at the Hotel Louis Joliet. All interested persons are invited to attend.

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NEWS FROM AGRICULTURE
UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Ten Percent Drop in Illinois Farm Population Forecast

URBANA--The 1960 census is expected to show that the Illinois farm population has declined about 10 percent since 1955.

According to C. L. Folse, University of Illinois rural sociologist, there will probably be about 610,000 people living on farms on April 1 compared with an estimated 688,000 in 1955. The number of farms is expected to total about 140,000 compared with 175,543 five years ago.

At the same time that farm population has declined, the state's total population should reach about 10,350,000 by April 1--a gain of about 1.6 million people since 1950. Illinois is one of eight states showing a gain of more than a million in population in the past 10 years.

Greatest decreases in farm population will show up in the less productive farming areas of southern Illinois and in the areas surrounding metropolitan centers, where farm land has been taken over for urban and industrial uses. Smallest farm population changes will take place in the commercial agricultural areas where the most productive farms are located.

Looking ahead to 1975, Folse believes that Illinois could reach a total population of more than 13 million. The farm population

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will continue to decline until it makes up slightly less than four percent of the total.

Population declines pose many problems for rural areas, Folse points out. Among them are local government, medical services and facilities and schools that must adjust to serving a smaller farm population.

Declining farm population, however, is not a new trend in Illinois. In 1910, the farm population totaled 1,158,000. By 1940 this number had dropped to 968,103. In 1950 it was 765,000.

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FOR IMMEDIATE RELEASE

When Is Feedlot Mechanization Profitable?

URBANA--When is it profitable to mechanize the livestock feeding operation?

This question is posing a problem for more and more farmers each year as new automatic feed-handling equipment appears on the market and average size of livestock operations increases.

The trouble is that there's no set answer to the problem, explains R. N. Van Arsdall, agricultural research economist at the University of Illinois.

General recommendations are available on size of enterprise needed to justify mechanization. But general recommendations seldom apply to an individual farm.

Farms differ in number of enterprises, building arrangements, feed-handling methods, seasonal labor demands and available capital.

Only by studying and analyzing alll of these variables as they apply to his own farm operation can the farmer come up with a logical answer to the automation question.

Van Arsdall believes these are some questions farmers should probably consider:

1. What is the initial cost of the equipment?

2. What is the annual cost of owning and operating the equipment?

3. Would it be more economical to make better use of present buildings and machinery than to buy new equipment?

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4. How much labor will the new machinery save?

5. What effect will it have on cost of other inputs or on quality or quantity of the product?

6. What effect will it have on the farm business in general, especially in terms of labor distribution and size and type of enterprise?

7. Is the equipment suited to one special purpose, or will it fit into several different operations and enterprises?

8. Will it contribute to an integrated production system in view of existing and planned facilities?

9. Would it be more logical to invest the cost of the equipment in some other part of the farm business or in family living?

10. Will the added machinery help make farming easier and more enjoyable?

In making the final decision, farmers should remember that mechanization is not always the best way to increase production, Van Arsdall explains.

Labor efficiency studies of cattle-feeding operations show that on similarly equipped farms the most efficient producers handled feeds six times faster than the least efficient producers.

In dairying, labor requirements may vary by as much as 200 hours per cow.

Therefore farmers should look for ways to improve efficiency through better use of existing buildings and equipment and better work methods as well as through mechanization.

Reorganizing farm buildings and work methods to use standard farm machinery for some of the work is often more economical than buying new special-purpose equipment.

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FOR IMMEDIATE RELEASE

Necrotic Enteritis Threat to Swine After Weaning

URBANA--The dangerous age for necrotic enteritis runs from weaning until the swine reach 90 to 120 pounds. With winter farrowing now in full swing, Dr. E. I. Pilchard, University of Illinois College of Veterinary Medicine, says farmers will soon have to be alert for this disease.

The first sign of necrotic enteritis is a watery, brown diarrhea. This should be a signal for the farmer to take immediate action. Delay in treating an infected animal may result in scarring of the large intestine, causing constant, chronic diarrhea and poor feed conversion.

In addition to diarrhea, swine producers will recognize other characteristic disease signs, such as rough hair coat, slightly arched back and tucked-up abdomen.

Strict sanitary practices will decrease the spread of the infectious bacteria causing this disease. However, if these infective agents get through the protective barrier built by sanitary practices, the farmer must depend on close herd observation and prompt medical treatment to protect his swine investment.

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FOR IMMEDIATE RELEASE

Short Course Students Can Study Farm Machinery

URBANA--A chance to study farm machinery and equipment is offered to students who attend the University of Illinois Winter Short Course in Agriculture.

Dates for the short course are February 8 to March 18. It will be held on the Urbana campus, reports Warren Wessells, short course supervisor.

The farm machinery courses are only a few of the many to be offered. Students can take a variety of courses in livestock production, agricultural economics and crop production.

In addition, students may take a home economics course entitled "Dating, Engagement and Marriage." One veterinary medicine course will also be given.

Any man or woman 18 years of age or older may attend the short course. Although a farm background is helpful, it is not necessary.

All students may live in the attractive University residence halls.

Costs for the six-week short course range from $190 to $230. This, however, does not include travel, recreation or clothing costs.

Persons interested in attending the short course can still apply. For more information see your farm adviser or vocational agriculture teacher. Or write to Wessells at 104 Mumford Hall, University of Illinois, Urbana.

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FOR IMMEDIATE RELEASE

Disease Resistance Under Study

URBANA--Plant pathologists at the University of Illinois are trying to find out what makes a disease-resistant variety disease resistant.

Some basic knowledge might aid in the further development of resistant varieties. Plant breeders have a tough time keeping ahead of new diseases.

It is hoped that some help will come from the pathologists' study of Phytopthora root and stem rot of soybeans.

"We know that a single soybean gene is responsible for resistant varieties," says pathologist J. W. Gerdemann, "but we aren't sure just how the plants ward off the fungus." Some theories under investigation are that resistant plants might manufacture a material that is toxic to the fungus, or that a nutrient essential to the growth of the fungus might be absent in those plants.

Gerdemann thinks that understanding this rot in soybeans could have important applications to disease problems of other crops.

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UNIVERSITY OF ILLINOIS

AGRICULTURAL CONFERENCES

Urbana, Illinois

COLLEGE OF AGRICULTURE and the
DIVISION OF UNIVERSITY EXTENSION

FOR IMMEDIATE RELEASE

Parkinson to Address Ag Industries Forum

URBANA--Cyril Northcote Parkinson, internationally known historian, political scientist and business philosopher, will address the University of Illinois Agricultural Industries Forum on Tuesday evening, February 2.

Parkinson is probably best known in the United States as the author of "Parkinson's Law and Other Essays," although other writings have also appeared in national magazines. Altogether he has published 17 works on various phases of history, political science and business philosophy. His newest book, "The Law and the Profits," will be published in February.

For the past semester, Parkinson has served as visiting professor of histroy and political science at the University of Illinois. Since 1950 he has been Raffles professor of history at the University of Malaya, Singapore.

Parkinson will replace Secretary of Agriculture Ezra Benson on the program. Since his recent illness, Benson has had to reduce his heavy speaking and traveling schedule.

Forum chairman Emer E. Broadbent reports that all other phases of the program are proceeding according to plan. The general session program on Tuesday morning, February 2, will feature two speakers.

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Raymond W. Miller, Washington, D. C., public relations counsel, will speak on "How Can Capitalism Compete?" Maxim Cohen, manager of the Chicago Regional Port District, will discuss "The Impact of the St. Lawerence Seaway on United States Markets."

During the Wednesday morning general session, Franklin J. Lunding, chairman of the board, Jewel Tea Company, will speak on "Planning to Build Our Markets."

On Tuesday afternoon and Wednesday morning, group sessions on marketing dairy products, grain, livestock, poultry and eggs, farm supplies and equipment are scheduled.

The forum is designed for all persons doing business with farmers. Farmers who serve as directors of banks, cooperatives or other businesses will also find this program of interest.

More information and reservation forms can be obtained from the Department of Agricultural Economics, 305 Mumford Hall, University of Illinois, Urbana.

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farm Radio News

NIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Foods Preserved by Radiation Not Harmful to Animals

URBANA--Animals fed a ration including irradiated flour show no harmful effects, according to Dr. Elwood F. Reber, University of Illinois College of Veterinary Medicine.

Working under a research grant from the Office of the Surgeon General, Dr. Reber subjected wheat flour to a form of atomic energy called gamma radiation. The radiation dosage was greater than was ordinarily needed to destroy weevil and beetle eggs. This relatively high level insured an adequate test of the effects of radiation on the wholesomeness of radiated flour.

Inspections over a two-year period showed that gamma radiation effectively sterilized adult insects and killed insect eggs in the flour. The radiated flour was still wholesome and nutritious.

Mixing radiated flour with non-radiated food, Dr. Reber fed this ration to a group of beagles. The dogs were allowed to eat all they wanted over a 24-week period. Sets of tests conducted on blood and urine samples, in addition to weekly examinations of the animals, indicated that this diet had no harmful effects.

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In fact, says Dr. Reber, dogs fed a ration containing radiated flour made slightly higher average weight gains throughout the experimental period than dogs fed a non-radiated ration. In addition, some of the beagles fed radiated flour weighed less at the start of the experiment and ate less during the experiment than some control animals receiving a non-radiated ration. In spite of this fact, they showed slightly higher weight gains, indicating better feed conversion of the radiated rations than of the non-radiated.

Southeast Asian nations are seriously considering the use of radiation equipment, manufactured in the United States, as a means of protecting their stored grain. These nations have not developed large canning or freezing industries. Chemical fumigation has not been practiced for protecting stored flour. Since radiation does not diminish the nutritive value of stored flour, this method of protecting it may get first big-scale use in these countries.

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FOR IMMEDIATE RELEASE

Turfgrass Foundation Will Study Lawn Grasses

URBANA--Lawn grass research, which turf scientists have neglected in the past, will soon receive support from the newly formed Illinois Turfgrass Foundation.

This organization will support research in the development of lawn grasses by the University of Illinois, announces Ben Warren, Palos Park, president of the Foundation.

Other officers of the Foundation are Bert Rost, Hinsdale, vice-president; Paul Burdette, Lombard, treasurer; and Harleigh Kemmerer, U. of I. assistant professor of horticulture, secretary.

This new organization has been formed by private individuals. But several U. of I. College of Agriculture staff members will serve on the advisory committee. They will select problems to study.

Research in the development of lawn grasses has already been initiated by the Foundation. Plots have been planted at Dixon Springs, Downers Grove and Urbana.

Standard and improved varieties of grass will be studied for their response to level of clipping, fertilizer and their reaction to various home lawn conditions.

Later, turfgrass problems of golf course, cemeteries, public parks and other institutions will be studied.

The Foundation plans to issue a regular report on its work. A special committee will also review current literature on grass studies made elsewhere.

The Foundation invites individual memberships from home owners as well as organization memberships from garden clubs and others interested in turf problems.

For more information write to H. R. Kemmerer, 104 Floriculture Building, Urbana.

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FOR IMMEDIATE RELEASE

Sorghum Silage Can Substitute for Corn Silage in Ewe Rations

URBANA--Recent University of Illinois tests show that sorghum silage makes a satisfactory substitute for corn silage in rations for wintering bred ewes.

Ewes fed sorghum silage performed just as well as ewes receiving corn silage, reports U. S. Garrigus, who heads up the College of Agriculture's sheep division.

These tests indicate that farmers can use sorghum silage for sheep if they do not have any corn silage. Until now it had not been known whether sorghum silage would make a satisfactory ration for ewes.

Garrigus explains that 104 head of bred ewes participated in the feeding trials. Researchers placed them at random into four drylots. Those in each lot received either corn or grain sorghum silage.

Ewes on the latter ration received 7 1/2 pounds of silage. The silage was supplemented with 1/2 pound of shelled corn and 1/4 pound of a mixture of 80 percent soybean oil meal, 10 percent powdered limestone and 10 percent salt.

Ewes on the corn ration received 8 pounds of silage, plus the soybean oil meal, limestone and salt.

Five weeks before lambing, all ewes received an additional 1/2 pound of shelled corn. After lambing was well under way, researchers added another 1/2 pound of corn to the rations.

Results showed that ewes receiving sorghum silage performed just as well as ewes receiving corn silage.

Previous work at the University of Illinois indicated that oat silage also makes a satisfactory substitute for corn silage. However, 1.2 pounds of corn must be substituted for 1 pound of oat silage.

So 7 pounds of oat silage and 1 pound of corn are comparable to 8 pounds of corn silage, plus the supplements mentioned above.

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FOR IMMEDIATE RELEASE

Farm Managers, Appraisers Set Winter Meeting, February 4-5

URBANA--Ways of managing grain and livestock farms to get high earnings will be the feature topic when the Illinois Society of Professional Farm Managers and Rural Appraisers meet on February 4-5.

According to W. N. Thompson, University of Illinois professor of farm management and secretary-treasurer of the group, a specific 437-acre farm has been selected for the feature discussion. Harold Primm, professional farm manager, Springfield, will present plans for running this farm as a grain operation. Burton Hasselberg, Peoria, will show how to organize it under a livestock plan. Earl Swanson, U. of I. professor of farm management, will show how linear programming can help in analyzing the farm plans.

Russell Thorpe, Belvidere, will give his appraisal of the value of the farm before and after a new highway goes through it. Franklin Reiss, U. of I. extension farm management specialist, will discuss writing a lease to cover this operation.

On Friday morning, new officers will be elected. L. H. Simerl, U. of I. agricultural economist, will discuss the farm outlook, and George Whitman will report on social security and income tax development.

The final session Friday noon will feature the annual service recognition award. Irwin A. Cochrun, director of the U. of I. bureau of business management, will speak on "This Business of Wheel Spinning."

L. H. Clausen, Champaign, is serving as chairman of the program planning committee, along with S. D. Honn, Decatur; Eugene Merkle, Danforth; Charles Quick, Champaign; John R. Tate, Kankakee; and Fay Sims, Urbana. The meeting will be held in the Illini Union on the University campus.

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FOR IMMEDIATE RELEASE

Farm Soybean Stocks High; Suggest Taking Loan or Purchase Agreement

URBANA--Farmers who want to hold soybeans were advised today to take price protection through a government loan or purchase agreement.

According to T. A. Hieronymus, University of Illinois agricultural economist, farmers held 198 million bushels of beans on farms January 1. This number was about as many as a year ago even though the crop was 40 million bushels smaller. Farmers apparently also have large stocks stored in country elevators.

Recent prices have been sustantially above the loan, Hieronymus reports. As a result, farmers had placed only 22 million bushels under loan by December compared with 67 million by the same date a year ago.

Exports and processing were quite large during October and November. But the weekly export rate has now fallen below that of a year ago. The amount processed in December was also less than in December last year.

Since the price of soybeans is always subject to substantial change, Hieronymus believes that those who hold beans would find a loan or purchase agreement cheap insurance. If the government is to avoid taking over any soybeans next May 31, both export and processing will have to rise from current rates. Holding soybeans for a price rise at this time is very risky, he concludes.

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farm Radio News

NIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR RELEASE TUESDAY, JANUARY 26, 1960

Corn Test Results Announced

URBANA--The first results of tests on dwarf corn and increased planting rates were released here today (Jan. 26) at the University of Illinois Crop Performance Day.

Also announced were the results of the corn hybrid trials conducted yearly by the U. of I. department of agronomy.

Jerry Ross, crop testing technician, reported that in general yields of the dwarf hybrids were lower than normal hybrid yields at the same test locations. The average dwarf yield at DeKalb was 90.5 bushels an acre; at Greenfield, 69.2; at Urbana, 70.7, and at Brownstown, 68.1.

Highest average yields of the "normal" commercial hybrids came from the Galesburg test field--112.8 bushels an acre, and the test field at Stanford yielded 112.6 bushels. To gear yields to actual farming conditions all fields were mechanically harvested.

Average yields of normal hybrids at other test locations were 106.5 bushels an acre at DeKalb, 103 at Woodstock, 101.7 at Urbana, 94.7 at Greenfield, 90.2 at Bowen, 89.1 at Ashkum, 84 at Wolf Lake and 81.7 at Brownstown.

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Five hundred twenty-three commercial hybrid varieties were included in the 1959 tests. Complete performance figures are outlined in Bulletin 651, "1959 Commercial Illinois Corn Tests," available from the College of Agriculture, Urbana, or from any county farm adviser.

Yield tests were also run on increased planting rates ranging from 20,000 to 24,000 plants an acre. Average yields were slightly lower than those of hybrids planted at regular rates. The thickly planted corn also lodged more in these first-year trials. Regular planting rates were 12,000 and 16,000 plants an acre.

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1/21/60

FOR RELEASE THURSDAY, JANUARY 28, 1960

Soybean Disease Threat Discussed

URBANA--Resistant varieties should some day turn back the soybean cyst nematode, remarked a University of Illinois plant pathologist here today (Jan. 28) at the Illinois Custom Spray Operators' Training School.

"But until then," said M. P. Britton, "stopgap measures are needed to check the disease's spread in Illinois." He mentioned state and federal quarantines of infested fields as one way and growing soybeans in rotation with non-susceptible crops as another.

The soybean cyst nematode turned up in the southern tip of Illinois late last summer. The Illinois Department of Agriculture placed the field under quarantine in October.

The disease, which can cause severe losses in soybeans, has a stronghold in Tennessee, Missouri, Arkansas and other nearby states bordering the Mississippi river. It spreads easily, and indications are that it's marching northward.

Britton's remarks to the custom spray operators were based on a report prepared by U. of I. plant pathologist M. B. Linford.

Britton said that controlling spread of the disease depends greatly on recognizing its symptoms in soybeans. Although positive identification isn't easy, he said farmers should watch for stunted plants. In soils of low fertility these plants may turn yellow.

Nematode infection shows up in patches in which all plants are affected. Stunting and yellowing from water damage look very much like nematode injury.

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Farmers should report possible infections to their farm adviser or the Illinois Department of Agriculture, Springfield. Collecting samples of soil or roots from suspected areas should be left to experts. All precautions must be taken to keep the disease from spreading to nearby areas.

Rotating soybeans with other crops looks promising as a control measure. Britton explained that some crops are resistant to the nematode. When these crops are grown in a soybean sequence, they can actually trap nematode larvae in their roots and thus kill them. Work is under way in some states to determine what would be good rotations to use against the nematode.

Weed control in the rotation program will also be important. Several weeds are known nematode hosts and definitely contribute to the disease's spread.

As for developing an Illinois soybean that is resistant to the nematode, Britton explained that super-sanitary laboratory facilities are needed first. At present U. of I. pathologists and plant breeders cannot work with the disease here for fear of its spreading throughout central Illinois. A resistant variety, then, is not immediately in the offing.

The cyst nematode spreads with bewildering ease. The eggs are well protected within cysts that can be carried by farm implements, tools, shoes, boxes, crates--almost anything that touches an infected soil. Wind, runoff water and wildlife are other carriers.

Soil fumigation has proved too expensive so far but is still being studied in heavily infested areas. New chemicals or new methods of application may change the outlook.

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FOR RELEASE TUESDAY, JANUARY 26, 1960

"High-Oil" Hybrid Corn Released

URBANA--Several producers will have the seed of "high-oil" hybrid corn available for the 1960 growing season, it was announced today (Jan. 26) at the University of Illinois Crop Performance Day.

R. W. Jugenheimer, assistant dean of the College of Agriculture, told the audience that several of these new high-oil hybrids, developed at the University, yield about 30 percent more oil and 10 percent more protein than present commercial hybrids.

They match standard hybrids in yield, standability and other traits.

"Feeding trials here show that high-oil corn is a more efficient feed for livestock," stated Jugenheimer, who is in charge of experimental corn breeding. Grain from the new hybrids also contains more high-quality germ protein.

It's expected that this nutritionally balanced protein will allow less expensive protein supplements to be used in balancing rations, Jugenheimer said.

He explained that other corn breeding work at the University centers around developing new inbred lines that commercial seed producers may use in forming new hybrids. Another group of promising new Illinois inbred lines will be released this spring.

Jugenheimer also pointed out that the high yield performance wrung from hybrids of late has given U. of I. researchers the chance to concentrate a little more on other characteristics. These include improved standability, higher oil and protein content, improved harvestability, less ear droppage and greater resistance to such hazards as insects, diseases, cold and drouth.

More than 750 experimental hybrids were tested in 1959. Results of these tests are outlined in the College of Agriculture Bulletin 652, "Performance of Experimental Corn Hybrids in 1959." Interested persons may get a copy from their county farm adviser or from the Office of Information, 110 Mumford Hall, Urbana, Illinois.

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FOR IMMEDIATE RELEASE

"Genetic Bridge" Helping to Develop Improved Squash

URBANA--University of Illinois plant scientists are using a unique "genetic bridge" to develop more disease and insect resistance in squash.

These shirt-sleeved researchers in the Department of Horticulture also hope they can develop more of a bush-type growth in squash species. If they are successful, machines may some day harvest squash, pumpkins and other members of the squash family. Harvesting these crops today requires many hours of hand labor.

If the project develops more disease and insect resistance, explains A. M. Rhodes, producers can grow squash more economically. Rhodes is directing the project at the University's Downers Grove Experiment Station in DuPage County.

He explains that several domestic species have desirable characteristics. Some of them are resistance to squash bugs and squash vine borers and bush-type growth. But no one species has all of these advantages. To complicate things further, these domestic species will not readily cross with each other. That is, they're incompatible.

However, a wild squash species called the Peten gourd will cross with the domestic species. So Rhodes uses this species as a "bridge" or messenger. Through the Peten gourd he's transferring favorable characteristics, such as insect resistance, from one species to another.

For example, the Moschata species resists the squash vine borer, but the Maxima species does not. Since these two will not readily cross with each other, Rhodes will first cross Moschata with the Peten gourd. If this cross is successful, it will resist the squash vine borer. Then Rhodes will cross the resistant plant with the Maxima species.

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UNIVERSITY OF ILLINOIS
AGRICULTURAL CONFERENCES
Urbana, Illinois

COLLEGE OF AGRICULTURE and the
DIVISION OF UNIVERSITY EXTENSION

FOR IMMEDIATE RELEASE

Second Ag Industries Forum Draws Nation-Wide Interest

URBANA--Agricultural business leaders from various parts of the United States are expected to attend the University of Illinois Agricultural Industries Forum on February 2 and 3.

According to forum chairman E. E. Broadbent, advance registration is running ahead of last year, and total attendance is expected to be larger. Last year about 700 attended.

This year's forum, set for February 2 and 3 at Garner House on the University campus, features the theme, "Planning for Dynamic Growth." Nationally known general session speakers include Raymond W. Miller, public relations consultant, Washington, D. C.; Maxim Cohen, manager of the Chicago Regional Port District; Franklin J. Lunding, chairman of the board, Jewel Tea Company; and Cyril Northcote Parkinson, author, historian and political scientist.

Special group sessions on Tuesday afternoon and Wednesday morning are planned for those interested in marketing dairy products, grain, poultry, livestock, farm supplies, including feed, fertilizer and seed, and machinery and equipment.

The dairy marketing group will hear the latest reports on fresh and sterile concentrated milk. Industry representatives will relate their marketing experiences in selling concentrated milk. Other topics will include trade barriers, promotion, selling and potential markets.

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The grain sessions will feature transportation problems, rate changes and plant locations. Industry, legal and government personnel will participate.

Livestock marketing sessions will discuss changing patterns in meat distribution, meat packing, livestock production and livestock marketing. Representatives from the chain stores, the packing industry and a large western feedlot will speak.

The poultry and egg marketing group will hear about the quality-controlled shell-egg program, producers' experiences, declining egg consumption and production costs. Participants include government officials, industry leaders and University staff members.

The farm supplies and equipment session will discuss the expected productivity and use of farm supplies and equipment and possible solutions to problems of adopting better production methods on farms. Separate meetings are also planned on feed mixing, buying fertilizers and seed and choosing corn drying and storage systems. Participants include agricultural economists, feed manufacturers, farmers, seed company executives, agricultural engineers, farm managers, bankers, lumber and implement dealers and University staff members.

The forum is designed for all who do business with farmers. Those who serve on boards of corporations, banks and cooperatives should also find the program interesting.

The Agricultural Industries Forum is sponsored by the department of agricultural economics in cooperation with the division of university extension at the University of Illinois. For further information and reservations, write to 305 Mumford Hall, Urbana.

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farm Radio News

NIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

4-H and FFA Calf Sale Set For February 27

URBANA--Illinois 4-H and FFA members in the market for top-quality calves for dairy projects can buy them at the 12th annual 4-H and FFA Club Sale in Urbana on February 27.

The sale starts at 11 a.m. in the University of Illinois stock pavilion.

The sale is sponsored by the Illinois Purebred Dairy Cattle Association to give 4-H'ers and FFA members a chance to get first-rate project stock at a fair price.

About 85 calves will be sold. They include the Holstein, Guernsey, Brown Swiss, Jersey and Ayrshire breeds.

Only bona fide Illinois 4-H and FFA members are eligible to buy calves. However, if the member cannot attend, he may designate another person to buy an animal for him.

All purchasers must certify that the calves will be used only for 4-H or FFA dairy projects. For sale catalogs, write to J. G. Cash, Department of Dairy Science, University of Illinois, Urbana.

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FOR IMMEDIATE RELEASE

Weed Control Chemicals Produce Good Results in 1959 Tests

URBANA--New pre-emergence weed control chemicals tested by University of Illinois agronomists during 1959 produced favorable results.

According to F. W. Slife, the new compounds Amiben, Atrazine, Randox-T and Falone gave results comparable with those of older materials. However, frequent rains during May and early June must be credited with part of the success of the tests.

Several more years of testing will be needed to determine whether these new chemicals can be used to better advantage than Simazine, Randox, 2,4-D and Alanap, Slife emphasizes.

Speaking before the Illinois Custom Spray Operators' School this past week, he reported these results and made the following recommendations:

In the tests Eptam injured some corn, and it is not recommended for general control of weeds in this crop. But it can be used successfully for wild cane and Johnson grass seedlings. Working three pounds an acre into the top inch of soil in either granular or liquid form will do the job.

Both Simazine and Atrazine will control all annual weeds. Since Atrazine dissolves more quickly in water, it may perform better than Simazine in dry years. Both are fully recommended for pre-emergence control of weeds in corn. Slife warned, however, that these chemicals may reduce growth of spring grains following corn unless the

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soil is plowed or disked in the fall. Soybeans do not seem in danger of any aftereffects when following treated corn.

Randox and Randox-T both performed well in the tests. Randox is recommended for corn and soybeans where grasses are the major problem. Randox-T is suggested for trial use in corn only to control grass and broadleaf weeds, if it receives clearance from the Food and Drug Administration before the planting season. Both granular and liquid forms have worked well.

Alanap controlled weeds in soybeans, although in a few cases it stunted the beans early in the season. This effect appeared to be temporary, however. This chemical is fully recommended for controlling weeds in soybeans at the rate of four pounds of active ingredient per acre. It works especially well on broadleaf weeds except smartweed.

Liquid and granule 2,4-D both were effective in controlling weeds in corn when used as a pre-emergence treatment. But some crop damage and loss of stand occurred. Granules probably won't overcome the problems of using 2,4-D as a pre-emergence treatment on corn. This chemical is also more effective on broadleaf than grass weeds.

Since 2,4-D costs less than other pre-emergence materials, farmers have stepped up its use. The Illinois agronomists recommend using it if the farmer knows its good and bad features.

Granular herbicides will be widely available in 1960, Slife reported. Tests to date shows that they perform as well as the liquid form. But, because costs may run slightly more per acre, a farmer should make sure that the extra cost will be worth the extra convenience in handling before he changes all of his equipment to use granules.

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UNIVERSITY OF ILLINOIS

AGRICULTURAL CONFERENCES

Urbana, Illinois

COLLEGE OF AGRICULTURE and the
DIVISION OF UNIVERSITY EXTENSION

FOR RELEASE WEDNESDAY P.M. FEBRUARY 3, 1960

Food Demand Will Depend on Value Added

URBANA--The way to expand the market for food is to add extra value and services to the basic product, a leading chain store executive declared here today.

Franklin J. Lunding, chairman of the board of Jewel Tea Company, Chicago, asserted that future food consumption per person will not increase to any extent. But consumers will pay more for added services they will get with their food. These services will cut kitchen drudgery and free homemakers for more desirable work in the community and around the house.

Speaking before the second University of Illinois Agricultural Industries Forum, Lunding said that more than 55 percent of the total food bill is for services performed on the basic food product.

Compared with the years before World War II, consumers now buy fewer fresh fruits and vegetables because they require longer preparation time. At the same time, use of canned fruit and vegetables has jumped 50 percent. Use of frozen vegetables has increased more than 20 times and continues upward.

Lunding praised the potato industry for its efforts to hold its market in the face of declining consumption. He reported that,

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besides bulk and bag sales, the industry has developed 18 other ways to sell potatoes. As a result, consumption per person is now holding steady.

He cited chicken as another example. An improved product at a low price in a convenient form has found a larger market.

Lunding questioned the long-run benefits of price supports for wheat in this country. Farmers have lost their foreign markets, and their domestic market has gradually declined on a per capita basis, he asserted.

In contrast, Lunding cited the great advancements made by lettuce growers. They have grown the kind of product the customer wants. Cleaning, sorting, and packaging add extra value to the product before it moves to the next handler. A good product and rising income has boosted lettuce consumption by 50 percent since World War II.

History shows that industry must win customers by gaining their confidence with upgraded products. If we accept government subsidy and protection against competition, we will see someone else take away the markets that have been ours, Lunding concluded.

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FOR RELEASE WEDNESDAY, FEBRUARY 3, 1960

Concentrated Milk Opens New Era For Producers, Consumers

URBANA--A new high-quality product, concentrated milk, may open a new era in milk production and marketing in this country. Producers with lowest costs and consumers will get the big benefits.

Economists, dairy scientists, milk producers and a New York advertising executive all shared a cautious optimism during dairy marketing sessions here at the second University of Illinois Agricultural Industries Forum.

The advertising agency executive, C. R. Sheldon of Compton Advertising, Inc., declared that concentrated milk has a definite place in the milk field. He called it a "marketing challenge seldom, if ever, put before an industry."

Sheldon pictured concentrated milk as an improved evaporated milk that many consumers could not tell from fresh whole milk. Judging from selling experience to date, he estimated that a good concentrate could capture about 15 percent of total fluid milk sales. He recognized that the best sales opportunities would be in the high-priced fluid milk markets, where the concentrate would have a definite price advantage. These markets are mainly in the South and East.

He cited the small bulk and long keeping qualities of concentrated milk that will make it more convenient in many ways than fresh whole milk.

R. W. Bartlett, U. of I. professor of dairy marketing, reported that trade barriers preventing milk movement across state borders may

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receive a "sharp jolt" in the not-too-distant future. Competition may be restored in 11 or 12 states still under state milk price control.

C. A. Iverson, Iowa State University professor of dairy industry, reported the successful sale of the new concentrated milk on rural milk routes in Iowa. Keeping quality has been good. Production and sale have also been successful in Canada and on the west coast. One Illinois dairy has had satisfactory experience in handling the product.

The Maryland and Virginia Milk Producers Association has operated a concentrate plant to dispose of sterile milk for one branch of the military forces and to use in ice cream and milk shake mixes. William B. Hopper declared that sterile concentrate milk can make milk products available where location, transportation problems and lack of refrigeration have made milk sales impossible. He urged, however, that concentrated milk maintain high quality and not be used to upset present marketing patterns.

Two forms of concentrated milk have been developed by dairy scientists. A fresh concentrate that requires refrigeration takes only one-third as much space as fresh fluid milk. A sterile concentrate packaged in a tin can requires no refrigeration. When reconstituted with water, both taste much the same as regular fluid milk.

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FOR RELEASE TUESDAY, FEBRUARY 2, 1960

Power Choring Requires Workable System

URBANA--Too many machines to choose from without a workable system for using them is the big problem for many Illinois farmers in mechanizing their chores.

This need for engineering combined with sound farm management has enabled an electrical contractor and an agricultural engineer to build a new type of business to serve northern Illinois farmers.

Duane R. Dahnert, partner in Waterman Electric, Waterman, described his experiences today before the University of Illinois Agricultural Industries Forum.

Dahnert said that finding the equipment to help him mechanize his chore work is not the farmer's problem. Instead, it is combining the various types of available equipment into a workable system.

He urged farm supply and equipment dealers to avoid high-pressure selling. Instead, they should provide some sound advice on how the equipment can be used. Specialized equipment dealers capable of coordinating management and machinery seem to be the answer to successful adoption of mechanized choring.

After spending nine years as an agricultural engineer with the Public Service Company of Northern Illinois, Dahnert formed a partnership with Kenneth C. Petersen, an electrical contractor. In the past three years they have developed a successful business with "farmstead equipment systems" that combine engineering, electrical application and a planned system of farm management built around the new system.

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FOR RELEASE TUESDAY, FEBRUARY 2, 1960

Western Feedlots Offer Challenge to Corn-Belt Feeders

URBANA--Three or four men can easily feed a thousand cattle a day. And, when properly equipped, ten men can handle 10,000.

This is the way an experienced western feedlot operator described the highly efficient cattle feeding programs now competing with corn-belt operations.

Speaking before the second University of Illinois Agricultural Industries Forum here today, Charles Wetzler, Phoenix, Arizona, reported that western feedlot operations are highly mechanized and all have sizable investments in plant and equipment.

Most lots use a mechanical feeder, generally truck mounted. The mills are equipped with a hay grinder, a grain grinder or roller and often a molasses impregnator. Some mills are adding equipment to put fat into the feed. Scale-type batch mixers are prevalent, but some also have percentage mixers.

Like all cattle feeders, the western feedlot operators use the cheapest feeds they can get. In central California, barley is the main feed grain. In Colorado, corn is most common. In Texas, sorghum grain is used. California and Arizona feeders use large amounts of cotton by-products. Silage, hay and molasses also find a place in the rations.

Feeding lots seldom have fewer than 2,000 head, and several of the largest can handle 20,000 head at a time. A cattle rancher or feed producer may own a feedlot for his use. Or a lot may be operated as a

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service business, providing feed, care and pens for cattle owned by others. Often a feedlot may be a combination of these two types.

The feedlots draw cattle from all cattle-producing states of the West and across the South as far east as Florida. The average commercial feedlot operator also buys all his feed, usually unprocessed.

Feedlot operators carefully produce the type of finished cattle their market demands. The West Coast market demands a steer grading choice and not weighing over 1,025 pounds. Wetzler reported practically no demand for prime grade beef or cattle weighing over 1,200 pounds.

Marketing is almost a continuous operation. Many lots sell cattle eight months out of the year. The larger lots sell continuously. As a result, direct feedlot to packer marketing has developed. Many packers go to the feedlots and contract several loads. Then they order them in as they are ready. The feedlot operator sends the packer an invoice for his purchase.

Some cattle are sold to packers on a rail basis. Under this plan the packer pays a pre-established price per pound for the dressed beef after slaughter. Some cattle are also sold on a grade and yield basis. This plan is much like the rail basis except that different prices are established for different grades. Sometimes cattle are sold on consignment. The packer then pays a price based on what the beef is sold for.

Wetzler also serves as chairman of the feeder committee of the American National Cattleman's Association. Working with this organization, he has helped to establish a more complete reporting system of cattle feeding by the U. S. Department of Agriculture. The western beef feeding industry has become a major part of the total feeding business. During 1958, California, Colorado and Arizona fed 2,276,000 head. At some times, California has had more cattle on feed than Illinois.

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farm Radio News

UNIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR RELEASE THURSDAY, FEBRUARY 4, 1960

Soil Tests To Be Revamped

URBANA--Plans for modernizing techniques in Illinois soil testing laboratories were announced today (Feb. 4) at the University of Illinois Fertilizer Conference by Jim Laverty, U. of I. agronomist.

Laverty said that a suggested change in the phosphorus test would result in measuring the immediate phosphorus needs of the soil. From the new test farmers can get recommendations for applying soluble phosphate on a specific crop. The old phosphorus test gave recommendations for applying such materials as rock phosphate over a three- or four-year period.

Laverty said that by the end of the year many soil testing laboratories in the state would be set up to run both phosphorus tests for farmers. Technicians are already being trained at the University to run the later test. This variation on the old test was developed in 1946 by U. of I. researchers L. T. Kurtz in agronomy and C. Y. Arnold in vegetable crops.

Laverty reported that many laboratories were also adopting a more precise way of testing soil acidity.

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FOR RELEASE FRIDAY, FEBRUARY 5, 1960

Farm Managers Present Service Award to C. L. Stewart

URBANA--The Illinois Society of Professional Farm Managers and Rural Appraisers today presented their annual service award to Professor Charles L. Stewart. He was honored at their annual meeting on the University of Illinois campus.

The plaque presented to Stewart was inscribed: "In recognition of his many years of service to agriculture and his leadership, teaching, and many contributions in the field of land economics and in the profession of rural appraising."

Stewart had served on the staff of the University of Illinois from 1924 until he retired in 1959. He is presently a part-time consultant on a research project dealing with the taking of farm land for highway use.

Stewart received degrees from Illinois Wesleyan University and the U. of I. Before joining the Illinois staff, he had served at the University of Arkansas and with the U. S. Department of Agriculture. He has written widely on topics of farm tenure, taxation and land economics.

Stewart received a signal honor in the 1958 Yearbook of Agriculture, Land. He was a member of the planning committee and perhaps more than any other man was credited for conceiving the idea and helping to prepare the volume for publication.

The farm managers and appraisers present this award each year to a person who has given outstanding service to Illinois agriculture. Charles B. Shuman, president of the American Farm Bureau Federation, received the 1959 award.

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FOR IMMEDIATE RELEASE

More, Higher Quality Meat Forecast

URBANA--Refrigeration, scientific production and prepackaging have helped to make meat the most important food on the family table, a Chicago food executive declared this week.

N. L. Chaplicki, vice-president of meat operations for the National Tea Company, Chicago, stated that almost all consumers want better quality meat and would eat more of it if they could afford it.

He reported that recent consumer surveys showed that quality meat was the most important item in food shopping. Homemakers do all their shopping at stores where they can get quality meat.

Refrigeration has made possible many changes in our eating habits, he pointed out.

Scientific methods of producing commercial frying chickens have changed many families' eating habits. Fried chicken has become an everyday menu item rather than a Sunday or picnic special. Last year Americans consumed 36 pounds of chicken per person.

Prepackaged self-service meats are the most recent change in retail meat distribution. The number of self-service meat counters jumped from 1,500 in 1950 to 11,500 in 1956.

In years to come, Chaplicki predicts the increased sale of higher quality, leaner, more tender and flavorful beef, lamb and pork. He cited the great increase in meat-type hogs in the past five years. He also expects more pre-cut and packaged frozen cuts of meat to come out of the packing plants at prices comparable with those of today's store-cut packaged meats.

Chaplicki spoke before the University of Illinois Agricultural Industries Forum livestock session Tuesday afternoon.

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UNIVERSITY OF ILLINOIS

AGRICULTURAL CONFERENCES

Urbana, Illinois

COLLEGE OF AGRICULTURE and the
DIVISION OF UNIVERSITY EXTENSION

FOR RELEASE TUESDAY, FEBRUARY 2, 1960

"Quality Controlled" Egg System Reported At Ag Forum

URBANA--Scientists, producers and marketing officials have developed a new quality control system that maintains the highest possible quality in eggs from nest to consumer.

This new quality egg program requires carefully controlled production, testing and handling under ideal conditions. And, to make sure that all requirements are met, special testing devices and standards have been developed.

R. A. Dorsett, a U. S. Department of Agriculture marketing official, described this intricate detailed process that qualifies a case of eggs for the "Fresh Fancy Quality" grade label at the University of Illinois Agricultural Industries Forum this week.

The new program employs a scientific method of determining interior egg quality. It replaces the old, laborious system of hand handling.

Government graders who carry out this program break a small representative sample of eggs from a flock. Then they measure the height of the egg white with a micrometer. A special "Haugh unit" indicates quality by classifying the eggs according to height of the white in relation to weight of the egg. Yolks are checked to see that they have no serious defects.

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Eggs with spots, stains or defective shells are removed by flash candling, bulk candling or use of automatic electronic devices.

To qualify for the Fresh Fancy or AA Grade, eggs must meet these requirements:

Eggs from each flock must be packed separately and identified. Hens in any flock must not vary more than 60 days in age.

Eggs must be gathered frequently, cleaned properly and cooled promptly.

A sample of eggs must meet certain rigid "Haugh unit" standards. And weekly tests must show a continued high-quality product.

Eggs meeting the required standards are dated and must be sold within 10 days or less. After that time they cannot be sold with the "Fresh Fancy" grade label.

Eggs that do not meet the standards for "Fresh Fancy" quality can be sold under the regular Grade A label if they meet the standards for this grade.

What happens if a farmer's eggs do not meet the "Fresh Fancy" quality standards? He can sell them under the regular Grade A label if they meet the standards for this grade. But if they do not qualify for either "Fresh Fancy" or Grade A, he is dropped from the program until his egg quality improves.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Some Farms May Find Feed Mixing Profitable

URBANA--Larger farms using completely ground and mixed rations may find on-the-farm mixing profitable. Some other operations will probably find it cheaper to hire a custom mixer.

R. J. Mutti, University of Illinois agricultural economist, said this week that farmers who use less than 75 tons of feed a year will probably find it less expensive to use custom-mixing services than to mix their rations on the farm. But when feed use rises above 100 tons a year, an automatic electric mixer and grinder on the farm will often cut costs below those of custom mixing.

To use over 100 tons of feed, any one of these enterprises would be required: 200 hogs, 65 feeder cattle, 50 milk cows plus replacement stock, 2,200 laying hens, 24,000 broilers or 1,300 lambs on feed.

Farmers may find that farm processing has other advantages, however. It can make work schedules more flexible and may offer more freedom in selecting sources of protein supplements and feed ingredients.

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On the other hand, many farmers will not find it advisable to feed complete rations. Uncertain conditions on many Illinois tenant-operated farms will also make farm feed processing impractical, he pointed out.

M. D. King, Pittsfield feed miller, pointed out certain limitations to farm feed mixing. Before a farmer begins to process his complete feed rations, he must consider his feeding volume, his buying power for feed ingredients and his investment in equipment. He must also decide whether he will be able to take the time to properly maintain and operate the processing equipment.

Russell Jeckel, Delavan farmer, reported a $3.50 a ton saving from mixing rations on his farm. In 1959 he and his father produced 2,500 hogs at an average feed cost of $9.46 a hundred pounds. This operation uses 1,400 tons of feed a year.

Mutti, King and Jeckel spoke before the feed session of the Agricultural Industries Forum at the University of Illinois this past week.

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FOR IMMEDIATE RELEASE

Corn Stocks Record High; Summer Price Weakness Expected

URBANA--Even though farmers used record amounts of corn from October through December, stocks on farms and in elevators on January 1 totaled 526 million bushels above a year earlier.

L. F. Stice, University of Illinois grain marketing economist, reports that corn producers are holding onto their crops tighter than most market observers expected. Although the 1959 crop jumped 561 million bushels, market receipts through January 21 were two million bushels behind a year ago.

Stice lists these reasons why farmers may be holding corn: the corn may be too wet to qualify for a government loan, they may expect prices to go up or they may not wish to take moisture discounts.

Good demand, light CCC sales and moderate market receipts have made recent prices strong at around $1.05. This demand is expected to continue through the spring but to drop off by summer as a result of the smaller spring pig crop. CCC sales may also increase as corn is moved from bin sites and country warehouses to terminals.

At this time it seems probable that corn use and exports in the 1959-60 marketing season will fall 400 to 500 million bushels below 1959 production. If this proves true, then this amount plus a quantity equal to CCC sales must go into the loan program if corn prices are to strengthen.

Loan movement of corn is likely to speed up this winter and spring as a result of lower corn prices caused by increased marketings.

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Much corn is not dry enough to qualify for loan, but present discounts are hardly great enough to make artificial drying profitable.

Much of this corn is therefore likely to be sold unless it dries out naturally enough to qualify for loan. Sealing corn with 17 to 20 percent moisture may offer some inducement, but not enough to cause some farmers to store rather than sell on the market.

So it really looks as if farmers are playing a "cat and mouse game" with each other, Stice suggests. They would prefer not to put their corn under loan. But they hope enough of their neighbors will do so to cause market supplies to go down and corn prices to go up.

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FOR IMMEDIATE RELEASE

Soybean Fertilizer Response Depends on Soil Test

URBANA--Soybeans continue their reputation of responding poorly to fertilizer even though that may not hold true on soils of extremely low fertility.

At the University of Illinois Fertilizer Conference Thursday (Feb. 4), U. of I. Agronomist L. T. Kurtz told of 1958 trials where 165 pounds of 20 percent superphosphate per acre increased soybean yields about 6 bushels. Five hundred pounds of superphosphate hiked yields nearly 9 bushels. This series of northeastern Illinois plots had previously tested "very low" in phosphorus.

In 1959 the experiment was repeated at the same location. Kurtz said that where superphosphate had been applied in 1958, there was generally very little yield increase from additional applications in 1959.

Yield boosts from fertilizer have always been more spectacular in corn, mainly because of nitrogen shortage, Kurtz said. But this isn't a problem with soybeans.

Though soil tests have to be quite low, phosphate fertilizers can increase yield of soybeans. Kurtz also pointed out that increases of up to 50 percent are not uncommon from potash fertilizers where soils test very low in potassium.

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FOR IMMEDIATE RELEASE

Vitamin A Deficiency Puzzles Beef Cattle Researchers

URBANA--An increasing number of apparent vitamin A deficiencies in corn-belt feeder cattle has beef cattle researchers puzzled, because most of the affected cattle are getting feeds that supply an adequate amount of vitamin A.

A. L. Neumann, head of the University of Illinois beef cattle division, revealed this problem at the Illinois Feed and Nutrition Conference February 3-4.

He reported that many Illinois veterinarians, feed company personnel and feeders are reporting this problem. "At first we thought the cases had been wrongly diagnosed, especially since the cattle were receiving rations normally adequate in A content," Neumann explained.

"But when the same problem occurred in 30 of our own experimental cattle, we knew the diagnoses were correct."

Here's what the 30 affected steers had been fed:

At first they either received a full-feed of good legume-grass silage or were on good pasture.

The group then went into drylot for 112 days and received a full feed of good corn silage, supplement and legume hay. Gains averaged 1.74 pounds a day.

After this trial the steers went on a complete mixed ration consisting of (1) 64 percent ground shelled corn, (2) 10 percent soybean oil meal, (3) 1 percent alfalfa meal and (4) 25 percent ground corn cobs.

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The 1 percent of alfalfa meal supplied at least the equivalent of 7,000 International Units of vitamin A. Ordinarily 6,800 units supply enough for beef cattle of their weight.

For the first 56 days of this test, daily gains averaged 2.56 pounds. All steers consumed an average of 20 pounds of feed daily.

Suddenly, however, about half of the steers went off feed. Examination showed most of the classical symptoms of vitamin A deficiency: lameness; accumulation of fluid in the brisket, knees, hocks and hoof-heads; and dull haircoats.

Some steers also suffered from night blindness and loose joints or muscles. When handlers moved the cattle, the steers had convulsive seizures, or fainting spells.

No steers had inflamed and watery eyes, or diarrhea, which both indicate an A deficiency.

A check of blood plasma convinced Neumann and U. of I. nutritionists that a lack of vitamin A was causing the trouble. The plasma vitamin A content had dropped to an average of 20.3 micrograms per 100 milliliters of plasma. Nutritionists believe the normal content ranges between 30 and 40 micrograms.

Neumann emphasized that this deficiency had never before occurred on the rations that were being fed. At the same time he gave several possible reasons for it:

1. Unknown substances in the corn silage or high-moisture corn may have interfered with the steers' internal mechanisms. This would have prevented them from converting vitamin A sources in the feed into vitamin A that they could utilize.

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2. Stilbestrol implants given to the steers might have increased their vitamin A requirements.

3. Some component of the complete mixed ration may have caused vitamin A in the feed to oxidize. This would have destroyed it before the steers could utilize it.

In trying to remedy the situation, Neumann and his staff tried two sources of vitamin A, alfalfa meal and synthetic A, in a dry carrier. Results showed that the synthetic A had a more beneficial effect than the alfalfa meal.

Neumann pointed out that this problem is also occurring in other corn-belt states. If cattle feeders spot vitamin A deficiency symptoms in their cattle, he suggests that they contact a veterinarian, a nutritionist or their farm adviser.

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farm Radio News

IVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Farm and Home Festival Plans Under Way

URBANA--Work is proceeding rapidly on the 1960 University of Illinois Farm and Home Festival March 31 and April 1-2.

In a special progress report this week, Chairman K. A. Kendall and Assistant Dean R. W. Jugenheimer outlined detailed plans for the exhibits, speaking program and special features.

This year the Colleges of Agriculture and Veterinary Medicine are cooperating in ten major exhibit stories. Each exhibit area will dramatically portray an important part of college work that contributes to the festival theme, "Progress for Better Living."

A speaking program designed to present timely topics of interest for farmers and homemakers will be held each day of the festival. Speaking programs are planned for Thursday and Friday afternoons in the University auditorium. The Thursday program will feature "Ways to Improve Farm Family Income." The Friday program centers around "Chemicals Useful in Agriculture and Their Residues in Food." Qualified speakers from on and off the campus will appear.

Saturday, April 2, is high school student guest day. A special program is planned for students interested in college training.

Other special features of this year's festival include the Town and Country Art Show, Town and Country Talent Show, square and folk dancing, a game room and the Plow Boy Prom Saturday, April 2.

All exhibits and speaking programs are scheduled for the south campus of the University of Illinois in Urbana. Further details will be announced at a later date.

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FOR IMMEDIATE RELEASE

New Paper Mulch Looks Good at U. of I.

URBANA--A new paper mulch may soon help home gardeners and commercial vegetable growers control their common enemy: weeds.

Tested during the past two summers by University of Illinois researchers, this improved kraft paper mulch did an excellent job of stifling weeds. Yields increased as a result.

These studies are reported by horticulturists Norman F. Oebker and J. Wilson Courter in the current issue of ILLINOIS RESEARCH.

They point out that paper mulches are not new. For the first time, however, the improved kraft paper contains a fungicide that keeps the paper from breaking down before the growing season ends. Previously this was paper mulching's biggest drawback.

Oebker and Courter tested the paper on cucumbers to see how it performed under Illinois conditions. For comparison, plastic-mulched and ordinary cultivated plots were included in the experiment.

Results showed that in both years all mulched plots significantly outyielded the cultivated plots. In 1958 the paper-mulched plots yielded 29 more bushels an acre than the plastic-mulched plots.

The reverse was true in 1959. Yields averaged 15 more bushels an acre from the "plastic" plots than from the "paper" plots.

Both plastic and paper mulches offer many of the same benefits. They control weeds, conserve water, keep fruits clean, warm the soil in spring, prevent soil nutrients from leaching and help keep the soil in good physical condition.

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In addition, a tractor-attached applicator can easily apply them.

The new paper mulch has two advantages over the plastic. First, it costs less. Second, it's easier to dispose of. Farmers can plow it under, knowing that it won't interfere with the following crop.

Plastic mulches must be removed from the soil.

Paper's main disadvantage is that it tears easily. But if it is laid carefully, and if the seedbed is smooth, this problem can be overcome.

The new paper mulch will work successfully with tomatoes and other warm-season crops. Oebker and Courter believe, however, that it shows more promise for commercial use in vine crops. These crops respond well to mulching, and planting can possibly be mechanized when paper is used.

Agricultural engineers are now working to develop a planter that will be attached to the paper-laying machine. This planter will plant seeds directly through the paper.

Beginning in 1960, dieldrin will be added to the paper for controlling insects. Since this has not been tested yet, it's not known how effective it will be.

Home owners interested in trying this new kraft paper mulch can probably buy it from a nursery or seed store when it is available.

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FOR IMMEDIATE RELEASE

One Goal of Moorman Research Farm: Disease-Free Hogs

URBANA--A team of animal scientists, veterinarians and agricultural engineers at the University of Illinois Moorman Research Farm will attempt to develop and maintain a disease-free swine herd.

"If this goal proves successful," says A. H. Jensen, "we can help conquer the No. 1 enemy of efficient hog production."

Swine researcher Jensen will direct management and environmental studies at the College of Agriculture's new Moorman Farm. Already under construction, it will be completed in 1961. A $200,000 grant from the Moorman Manufacturing Company has made the farm's construction possible.

Although the farm is designed primarily for animal breeding studies, researchers can also study management and environmental conditions. Disease prevention and control will be a key area in this work.

To help keep the farm disease-free, Jensen reports that a high fence will completely surround it. Visitors, employees and researchers will enter only through a gate house. There they will receive sterilized boots and laboratory coats.

Veterinary medicine researchers will work hand in hand with the animal scientists. Under the direction of Dean C. A. Brandly, they will continually check hogs for "hidden" diseases. These diseases have no visible symptoms; yet they are present in hundreds of hog herds. They sap the animal's strength and reduce his feed efficiency and rate of gain.

Often they rob hog producers of profits. And the producers never know why they didn't make a profit!

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According to Dean Brandly, these "hidden" diseases have opened up a brand-new research area. Detecting them requires special equipment and know-how, not just a sharp eye.

Brandly and his staff will use tissue culture tests as one tool for detecting these diseases. They'll prepare samples of animal tissues in a special solution. These solutions show the presence of any viruses. Hogs having viruses will then be treated accordingly.

Jensen notes that researchers will take the original Moorman farm pigs by Caesarean section. This will prevent them from getting any diseases from their dams. The pigs will be raised in isolation, as free as possible from diseases.

Successive generations will farrow naturally, but in isolation quarters.

Turning to the management studies, Jensen and his co-workers will study such factors as (1) different housing systems, (2) location of feeders and waterers, (3) floor space requirements, (4) manure handling and disposal, (5) ventilation, heat and air-conditioning and (6) lighting systems.

Some buildings will have a controlled environment. This control will allow researchers to study relationships between environmental stress and physiological functions of the pigs. From the results the scientists can determine the best environments for pigs of different ages and sizes.

Jensen feels that management is the most neglected area of swine research today. He hopes that within a few years they can suggest to farmers the most ideal management and environmental conditions for growing hogs.

Directing the physiological studies will be A. V. Nalbandov. His colleagues will include P. J. Dziuk and B. A. Rasmusen. They'll study artificial breeding of swine. They'll also conduct studies in the new field of immunogenetics.

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FOR IMMEDIATE RELEASE

Announce Contest to Stimulate Poultry Interest

URBANA--A contest designed to stimulate interest among boys and girls in improving their 4-H or vo-ag poultry project has been announced by the Illinois Poultry and Hatchery Federation.

This 11th annual Junior Chicken-of-Tomorrow Contest attracts nation-wide interest, as competing youngsters use top management, feeding and disease prevention practices to raise the best possible chicks.

S. F. Ridlen, University of Illinois poultry extension specialist and member of the contest committee, explains that any Illinois 4-H or vo-ag member with a poultry project may enter.

An entry consists of 50 cockerel chicks of one breed, strain or cross. Contestants may have more than one entry so long as each is a different breed, strain or cross.

Contestants raise baby cockerels to eight weeks of age. Then each contestant delivers 10 cockerels to the processing plant at White Feather Farms, Inc., Dundee. The best eight cockerels of each entry are judged on conformation, condition and weight.

Entries scoring the highest number of points on these factors are judged the winners. There are sectional winners as well as state winners.

The IPHF and local hatcherymen donate cash prizes.

Contest entries close at midnight, February 29, 1960. For more detailed information, contact your county farm adviser, vo-ag teacher or a local hatcheryman.

Serving as contest chairman is Clarence Ems, State Department of Agriculture, Springfield.

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IVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Good Diet Best Prescription for Heart Disease Worriers

URBANA--A well-balanced diet is probably the most sensible prescription for people who worry about heart disease, according to Dr. F. A. Kummerow, University of Illinois food technology chemist.

Speaking recently at the Illinois Nutrition Conference held on the U. of I. campus, Kummerow said "freak" diets which exclude meat, eggs and milk because they contain "hard" fats (animal fats) may do more harm than good.

These "freak" diets are sometimes recommended to avoid atherosclerosis, a form of heart disease caused by fat-like serum cholesterol build-up in artery walls.

Kummerow said the American food supply does not contain enough substitute "soft" vegetable proteins to take the place of protein-rich meat, eggs and milk.

Why, then, he asked, should Americans give up their best sources of protein because these foods also contain "hard" fats?

Speaking further about the diet--heart disease controversy, Kummerow explained that heart attacks generally are not caused by drastic changes in the diet.

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Fat build-up in artery walls has been shown to begin in three-month-old babies and gradually accumulate throughout life. A sudden switch from a "hard" fat to a "soft" fat diet cannot effectively reverse the end result of a lifetime of fat accumulation, Kummerow said.

Only when the serum cholesterol level is extremely high should the diet be drastically altered--and this must be done under the supervision of a physician.

The U. of I. scientist said that recent publicity given to the possible relationship between fat-like serum cholesterol and heart disease has led to an unfortunate situation for researchers, doctors and heart patients.

This "cholesterol fixation" has resulted in repetitious research work, diverting attention from the real problem, which is atherosclerosis--not serum cholesterol levels--he explained.

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FOR IMMEDIATE RELEASE

Researchers Question Value of Ethanol for Dairy Cattle

URBANA--Numerous tests with the feed additive ethanol (ethyl alcohol) indicate that it won't help dairy heifers make faster gains, according to J. R. Staubus, University of Illinois dairy specialist.

Staubus says that of many studies conducted throughout the country, only one showed an advantage for supplements containing alcohol. And the gains on this ration were too low to be significant.

Kentucky researchers compared rumen fluid samples from a group of heifers that had received ethanol with another group that had received the same ration without ethanol.

Analysis of the samples showed no difference in type of rumen fermentation. There also was no difference in feed consumption or weight gains.

Research with beef heifers at Kansas showed no increase in rate of gain or in quality of meat when ethanol was added to the ration. In these tests soybean oil meal produced the most economical gains.

All tests indicate that ethanol's main value to dairy heifers is as an energy source. However, corn and other farm-grown grains are much cheaper sources of energy, Staubus explains.

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FOR IMMEDIATE RELEASE

"Hybrid" Alfalfa Possible But Expensive

URBANA--True hybrid alfalfa is in the works, but high costs stymie commercial seed production.

Right now breeding hybrid alfalfa would involve planting parent alfalfa plants individually in much the same way as gardeners set out stem cuttings of geraniums, explains C. N. Hittle, University of Illinois agronomist. This method works fine on an experimental basis, but it is too costly for commercial producers to try on a large scale.

Top alfalfa varieties currently offered to farmers, such as Vernal and Ranger, aren't hybrids--they're synthetics. The parents of this seed are allowed to intercross at will, and farmers plant what breeders call advanced generation seed. True hybrid alfalfa would be produced by controlled crossing, and it would be first-generation seed. Farmers would buy seed produced by the first cross.

Hybrid corn works in much the same way, but this seed can be mass-produced economically because it's easier to control crossing, and with corn there is no need to plant parent seedlings individually.

Because of their first-generation hybrid vigor, certain experimental alfalfa hybrids have outyielded synthetic varieties, Hittle says. Some make almost five tons an acre compared with Ranger's four and one-half tons. But Hittle questions whether this is spectacular enough to make it practical to mass-produce such seed, especially with the methods now available.

Hittle says that experiment stations and commercial alfalfa breeders are working hard on methods to build hybrid vigor into alfalfa. Whether or not farmers will ever use true hybrid alfalfa depends mainly on the cost of seed production.

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FOR IMMEDIATE RELEASE

Turkey Growers Plan Annual Meeting

URBANA--Several veterinarians will discuss widespread turkey diseases at the Illinois State Turkey Growers' Association annual meeting in Urbana March 3.

Veterinarians from the University of Illinois and commercial companies will report progress in controlling turkey diseases. Serving as discussion chairman will be Dr. J. O. Alberts, U. of I. College of Veterinary Medicine.

The program begins at 10 a.m. in the U. of I. Animal Sciences Laboratory. Morning talks will feature a "Report From the National Turkey Federation" by C. M. Small, executive secretary, Mt. Morris, Illinois.

Orville H. Cockrel, Hale and Hunter Company, Chicago, will discuss the "Challenge of the Turkey Industry."

Following the turkey disease session in the afternoon, Clem Thurnbeck, NTF president, Forest Lake, Minnesota, will report.

The turkey growers will climax their meeting with an annual banquet at 6:30 p.m. Guest speaker will be L. E. Card, former head of the U. of I. Department of Animal Science. Card will report on "My Two Years in India."

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Lumber Rigid Frames--Newest Thing in Farm Building Design

URBANA--Lumber rigid frames may be the answer to getting durable wooden building frames that can be built and erected on the farm with farm labor.

The frames provide more usable space by doing away with posts, ties and other interior obstructions. They're quick and easy to build. And they usually cost less than conventional construction.

The new frames were developed by University of Illinois agricultural engineers. They consist of two studs and two rafters made rigid by gluing and nailing a plywood gusset plate to the sides of each connecting joint. The gusset plates hold the frames rigid and neatly eliminate the need for inside supports.

This spacious, clear-span construction is ideal for many types of farm buildings, says E. L. Hansen,U. of I. agricultural engineer who helped design the new frames. The frames are especially suited to use in poultry and hog houses, garages and machinery sheds.

Hansen says lumber rigid frames are built half a frame at a time. Half-frames, consisting of a stud, a rafter and the eave gussets, can be assembled inside a building--either at a local plant or on the farm.

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FOR IMMEDIATE RELEASE

Farmer Finds Inexpensive Frame in Farm Building Design

QUINCY--Rigid plywood panels may be the answer to erecting economical wooden building frames that can be built and erected on the farm with farm labor.

The frames provided were usable space by doing away with posts and other interior obstructions. They're quick and easy to build, and they usually cost less than conventional construction.

The new frames were developed by University of Illinois agricultural engineers. They consist of two circular end wall sections made rigid by gluing and nailing a plywood gusset plate to the sides of an connecting joint. The quarter circles hold the frames rigid and only eliminate the need for bracing support.

This operation, plywood-gusset-action is ideal for many uses of farm buildings, says E. T. Kanoon, U. of I. agricultural engineer who helped develop the new frames. The frames are especially ideal to use in poultry and hog houses, garages and machinery sheds.

Farmer Jim Lamber rigid frames are built half a frame at a time. Half-frames, consisting of a wheel, a gusset and the curve sections, be assembled during a building--either at a local plant or on the farm.

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The half-frames are then hauled to the construction site. The builder lays two of them together on the ground and nails and glues them together at the ridge with plywood gussets.

He then tips the total frame into position and fastens it to the foundation. The frames are light enough for four men to easily handle even the heaviest ones.

Hansen says the new frames were first tried on a small hog house in 1957. They've come a long way since then.

A series of frame designs now are available that vary from 2 x 4 to 2 x 12 in lumber size, from 12 to 40 feet in span, from 6 to 12 feet in inside wall height and from about 1 foot to 14 feet 6 inches in recommended maximum spacing.

Rigid frame construction isn't new. But for the most part frames have been factory produced from steel or laminated wood. New lumber rigid frames satisfy the need for frames that can be built by local lumber yards, local builders or on the farm.

For further information on lumber rigid frames, write for the booklet, "Lumber Rigid Frames for Farm Buildings," Department of Agricultural Engineering, University of Illinois, Urbana.

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FOR IMMEDIATE RELEASE

No Nurse Needed for Legumes

URBANA--Seeding legumes without a nurse crop is a possibility for the future. When a few more problems are ironed out, agronomists think this idea may move successfully from experimental plots to actual farm practice.

Letting legumes go it alone without a nurse crop leaves it up to weed sprays to supply protection, and some new selective herbicides have turned in impressive performances. However, such chemicals as dalapon and 4-(2,4-DB) have not yet been cleared by the Food and Drug Administration for general use on forages.

Pure stands of legumes were spring-seeded in University of Illinois trials, and two cuttings were harvested in the fall. The first yielded 1.35 tons anacre; the second, almost one ton. Selective herbicides gave good control of broadleaf and grassy weeds, reports Agronomist B. J. Gossett. And legume stands the next spring were considerably better than on check plots, where stands were established with an oat companion crop.

Letting chemicals instead of oats play nurse to legumes offers an appealing prospect for at least a two-ton forage yield the first year and superior stands the second. But the new practice does have some limitations, says Gossett, who believes a "wait-and-see" attitude is best for farmers at this stage.

One of the featured exhibits at the 1960 Farm and Home Festival March 31 and April 1 and 2 will be "Chemistry in Agriculture." It will show advancements in weed control chemicals and the many other ways in which chemistry is helping farmers.

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FOR IMMEDIATE RELEASE

Wool Pools Offer Chance for Higher Wool Prices

URBANA--A University of Illinois livestock extension specialist has announced that two wool pools in May will offer Illinois farmers chance to get above-average prices for their wool.

T. R. Greathouse adds that farmers shearing sheep now might profit by waiting to sell their wool through a pool.

The pools will be held in Peoria and at the U. of I. Dixon Springs Experiment Station near Robbs. Dates for the Peoria pool are May 16-19. Those for the pool at Dixon Springs are May 9-11.

Any sheep producer may sell his wool through one of the pools if his county helps to support the pool.

Last year wool sold through the Peoria pool brought an average price of 43 cents a pound. During this same period local buyers had offered farmers about 10 cents a pound less. Dixon Springs wool sold for an average of 42 cents a pound.

Greathouse explains that a large volume of wool, completely sorted and graded, attracts higher bids than an individual farmer can get.

Wool pools also have an educational advantage. By watching graders sort and grade the wool, farmers can learn why it receives various grades.

The wool pools are organized by county agricultural extension personnel. Although three counties organized and conducted the Peoria pool last year, nearly 15 are expected to participate this year. Chairman of the Peoria pool is George Perisho, Peoria county farm adviser.

Serving as chairman of the Dixon Springs pool is J. M. Lewis, acting superintendent of the experiment station.

For more information about the pools, farmers should contact their county farm adviser.

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NEWS FROM AGRICULTURE

NIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Farm and Home Festival Exhibits Announced

URBANA--Ten exciting exhibit stories, presenting opportunities for better farming and better living, will be featured at the 1960 University of Illinois Farm and Home Festival March 31 and April 1 and 2.

These exhibits present the work of the Colleges of Agriculture and Veterinary Medicine. They are:

RECORDS: TOOLS FOR PROGRESS will show how farm records and research data are gathered and interpreted for the benefit of all farmers.

FEED AUTOMATION: FOR PROGRESS--FOR PROFIT. This exhibit demonstrates how five mechanical units can be integrated into a complete feed-handling system.

SOYBEANS: GOLD FROM THE PRAIRIE presents the story of soybean production and processing and the many uses for this crop.

CHEMISTRY IN AGRICULTURE. This display features the many benefits of chemicals to agriculture.

ANIMAL PRODUCTS STRENGTHEN THE NATION. The research and practices that lead to quality animals and quality products will be shown.

BETTER LIVING AT HOME will explain the new labeling law for fabrics and garments, show a day in the life of a nursery school child, show methods of serving large groups of people, display decorative and

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functional home lighting and report results of food and nutrition research.

THIS IS COLLEGE presents a picture of student life at the University of Illinois. Students and staff will answer questions about housing, costs, scholarships and class schedules.

CAREERS FOR YOU portrays the many opportunities for young people trained in agriculture, home economics and veterinary medicine.

EDUCATION FOR BETTER LIVING will show how the college serves all Illinois through research, teaching and extension.

AROUND THE WORLD WITH OUR COLLEGE. The College of Agriculture is working in other lands, and many students and visitors also come to Illinois from other countries.

Besides the exhibits, the 1960 Festival also features a speaking program on timely topics, a Town and Country Art Show, a Town and Country Talent Show and square and folk dancing.

Saturday, April 2, is high school student day. All high school students are invited to learn more about college educational opportunities.

These many events and activities are all packed into a three-day program on the campus of the University of Illinois at Urbana. You can come for one or all three days and find something to interest you all the time you are there.

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FOR IMMEDIATE RELEASE

Swine Day Report to Show Drying Temperature Effects on Corn

URBANA--The effect of various drying temperatures on the nutritional value of corn will be one of several research reports presented at the University of Illinois Swine Day on March 3.

This topic has special interest because some laboratory tests have shown that drying temperatures below 160 degrees F. lower the feeding value of corn for hogs. Improperly used drying temperatures can also scorch corn, affecting its feeding value, explains A. H. Jensen, U. of I. swine research specialist.

Other reports on the morning program will include (1) methods of preventing anemia in baby pigs, (2) bulky versus high-energy rations for sows at farrowing time, (3) feeder space requirements, (4) feeding scabby oats, (5) feeding high-moisture corn and (6) the Illinois plan for feeding hogs.

These topics will be reported by swine research workers and livestock extension specialists.

A welcoming talk by U. of I. President David D. Henry will inaugurate the afternoon program at 1:15. Then agricultural economist L. H. Simerl will discuss "What's Ahead in Hog Prices?"

The future of disease-free pigs will be the subject of a talk by J. D. Caldwell, University of Nebraska department of veterinary science. Nebraska is noted for its progress in raising pigs completely free from diseases.

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This Swine Day will be held on the U. of I. Urbana campus. The morning program begins at 10 o'clock in the University auditorium. Prior to that time, hog producers may visit the swine equipment display in the stock pavilion. Or they may visit the University swine nutrition farm to see its facilities and the research projects in progress.

Following the Urbana Swine Day, a series of seven Area Swine Days will be held. Dates and locations of the area events are:

March 8	Mt. Vernon, High School Auditorium
March 9	Hillsboro, High School
March 10	Pittsfield, American Legion Hall
March 11	Macomb, Fine Arts Building Auditorium, Western Illinois University
March 15	Kewanee, High School Auditorium
March 16	Milledgeville, High School Auditorium
March 17	DeKalb, Northern Illinois University Auditorium

All Illinois swine growers are invited to attend the Urbana Swine Day. They may also attend any Area Swine Day they choose, points out H. G. Russell, livestock extension specialist.

Watch your local newspaper for more specific information about the Swine Day in your area.

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FOR RELEASE FEBRUARY 20, 1960

Eight Illinois Farm Youth to Visit
Foreign Countries in IFYE Program

URBANA--Eight outstanding Illinois farm youth will represent the United States in foreign countries under the International Farm Youth Exchange (IFYE) program, Hugh Wetzel, Illinois IFYE committee chairman, announced today.

The Illinois delegates, and countries where they will go, are Mary Jo Cunningham, Georgetown, Peru; Eunice Schaudt, Pinckneyville, Republic of China; Lois Warfield, Gibson City, Australia; Walter Griffith, Galesburg, Dominican Republic; Donald Smallwood, Fairbury, Ireland; John Sadler, Fithian, Argentina; James Rea, Mulkeytown, Finland; and Leon Shaw, Woodstock, Mexico.

These young people were selected for their outstanding leadership in 4-H and other farm youth activities. They join more than 100 U. S. IFYE delegates in countries throughout the world.

Wetzel says each delegate will stay with four to 12 farm families during his four- to six-month stay in the country. In exchange, farm youth from cooperating countries will visit and work on Illinois farms.

Since the program began in 1948, more than 1,000 U. S. IFYE delegates have visited 50 countries in Africa, Asia, Europe, Latin America, the Pacific area and the Middle East. About 1,200 foreign youth have visited and worked with U. S. farm families.

When the delegates return home, they must share their experiences with youth groups, rural organizations, civic clubs and others

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in their own country. They tell about customs, living conditions and the type of people they met in their host countries.

U. S. delegates have given their impressions of foreign countries to more than six million people through speeches alone. They reach many more through radio and television programs and newspaper and magazine articles.

Wetzel says the IFYE project was founded to help rural young people understand and appreciate the problems of similar people in other countries. The founders believe that understanding people is the foundation of world peace.

The program is supported by voluntary contributions. In addition to funds raised for each IFYE delegate from his home county, support is given by the Illinois and the National 4-H Foundation.

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FOR IMMEDIATE RELEASE

International Lily Show Offers Special Opportunity

URBANA--Backyard gardeners and professional flower growers have a rare opportunity to gather a wealth of information about raising and showing lilies at the International Lily Show in Madison, Wisconsin, July 8-10.

Many individual displays of lilies will be judged at the show. But there will also be one massive educational display featuring the whole season of lilies. Blooms from around the world will be imported for this exhibit. This showing is designed to help gardeners select lily species in a more practical manner than is possible by personal visits to nurseries.

Members of the North American Lily Society will be featured speakers during the show.

J. R. Kamp, University of Illinois floriculturist, points out that Illinois gardeners need much specific information to grow lilies successfully. This exposition should provide much of this information.

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IIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Farm and Home Festival to Show Guides for High-Profit Farming

URBANA--Features that reveal the difference between high- and low-profit farms will be shown as part of the 1960 University of Illinois Farm and Home Festival March 31 and April 1-2.

These features, obtained by analyzing Illinois farmers' records, were reported this week by University of Illinois agricultural economists D. F. Wilken and R. A. Hinton.

In crop production, the high-profit farms have 5-10 percent more acres in corn and soybeans. Yields average 10 to 20 percent higher. The operators select crops that suit the capabilities of the soils on their farms. They also follow balanced fertility programs and sell their crops for prices above the average obtained by other farmers.

On the livestock side, the high-profit farms have twice the volume of the low-profit farms. These farm operators obtain 10 to 20 more production per unit of livestock. They also obtain 20 to 50 percent higher returns for each $1.00 worth of feed fed. When expanding, the high-profit farmers choose hogs and feeder cattle--livestock that have low labor requirements in relation to gross income.

In general the farm operators who make the higher profits do a better job of cutting costs by more careful buying. They spread

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their fixed costs over more acres and more livestock to keep the cost per acre and per head of livestock as low as possible. They are also willing to spend more money when their chances are good to offset these costs by greater value of output.

These high-profit farm features are part of the lessons learned from analyzing farm records at the University of Illinois. Other important benefits of good farm records on the farm and in the home will be shown in the exhibit, "Farm Records--Tools For Progress."

The 1960 Farm and Home Festival also features nine other major exhibit stories, a top-notch speaking program, the Town and Country Art Show and other special events.

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FOR IMMEDIATE RELEASE

Research Into Baby Pig Losses

URBANA--Veterinary scientists are carrying out a cooparative attack against young pig death losses at 12 midwestern universities and the Agricultural Research Service of the U.S.D.A. This attack takes the form of an expanded, coordinated research project called NC-13.

Not many farmers have heard of this project, but they use many management practices based on 12 years of NC-13 research. Illinois farmers know the importance of these management practices recommended to protect baby pigs. Twenty-three percent of the farm income in this state is earned through swine production. Yet for many years it has been reported that swine producers lose about 30 percent of their baby pig crop.

Probing the relation between baby pig feeding and blood sugar level, veterinary scientists traced some of the effects of poor nourishment. They found that adequate food, necessary to maintain the blood sugar level, was more critical in baby pigs than in other animals.

Several research programs have been started. One of the most outstanding deals with "disease-free" swine. These programs will enable swine producers to get clean stock after selling off the old because of continuous or recurring disease problems. Results to date indicate that "disease-free" swine programs will control such troublesome diseases as virus pig pneumonia and atrophic rhinitis.

Although research findings are often translated into improved management and feeding practices, these same findings may raise

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additional questions. For example, veterinary scientists have learned that many factors may cause enteritis. They are now working to gain a more complete understanding of the agents causing this condition.

Other scientists are investigating problem areas that encompass more than one disease in one animal. They are interested in the relation between such diseases as cholera and enteritis. They are also studying the relations between the effects of various diseases, vaccines and nutrition.

Project NC-13 enables veterinary scientists to divide the work of investigating the primary causes of young pig losses. For example, the University of Illinois and Michigan State University are investigating nutrition problems; Iowa State, Purdue and the Agricultural Research Service, cholera; Nebraska and Minnesota, disease-free pigs; and Illinois and Purdue, TGE.

Although a new vaccine may solve the farmer's immediate problems, perfecting a vaccine does not mark the end of research. The farmer must still face the disease hazard. He must also pay for vaccination.

The ideal way to control disease is to eliminate or prevent it. Farmers no longer worry about foot and mouth disease, which attacks both swine and cattle. Cattle producers no longer worry about Texas fever or contagious pleuro-pneumonia. These and other animal diseases have been eradicated from the United States by control measures based on the type of research presently being conducted under Project NC-13.

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FOR IMMEDIATE RELEASE

Commercial Activity Brightens Alfalfa Outlook

URBANA--A growing array of commercial varieties is pumping new life into the alfalfa seed picture.

C. N. Hittle, University of Illinois agronomist, calls it a "healthy situation." He sees commercial alfalfa interests following the growth pattern set by the hybrid corn industry. "Although we haven't done enough testing of the new entries to make definite evaluations, many varieties do look promising," Hittle says.

For its 1960 recommendations the Department of Agronomy sticks with Atlantic, Buffalo, DuPuits, Ranger and Vernal. Substantial performance figures speak well for all of them.

Atlantic is winter hardy and fast growing. It is not wilt resistant and therefore is recommended only for short-term stands.

The wilt-resistant Buffalo works in either short- or long-term stands. It is not recommended for the northern two or three tiers of counties.

DuPuits starts growth early in spring, recovers rapidly from grazing and blooms earlier than most varieties. Very susceptible to wilt, it should be used only in short-term stands.

Ranger is both wilt resistant and winter hardy and can be used in either short- or long-term stands.

Vernal is also wilt resistant and stands up well under grazing. It is recommended only for the northern half of Illinois.

Hittle singles out two varieties that are not recommended for Illinois: Lahontan is susceptible to leaf diseases, and Moapa is not winter hardy.

As promising newcomers to University of Illinois variety trials, Hittle lists Cody, Intercross 200, Intercross 300 and FD-100. Hittle says these are not blends--they're name varieties.

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2/22/60

NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR RELEASE THURSDAY P.M., MARCH 3, 1960

Pigs Don't Like Competition at Dinner Table

URBANA--University of Illinois studies have shown that crowding growing and finishing pigs at self-feeders slows down their gains.

Allowing up to six hogs at one feeder hole produced the best gains. These hogs also ate the most feed.

Allowing more than nine hogs to eat at one feeder hole slowed down gains. Since they didn't eat as much, their gains dropped.

These tests show, however, that giving pigs less feeder space helps to improve feed efficiency. Since hogs eat less when they have more competition, they seem to use their feed more efficiently.

These results on feeder space requirements were reported today by livestock extension specialist T. R. Greathouse. He presented the results before the College of Agriculture's Swine Growers' Day audience.

Greathouse explained that eight lots of pigs were used in the tests. Workers pastured each lot on a one-acre plot of alfalfa and ladino. Each lot had the same number of pigs. But swine research workers varied the amount of feeder space in the different lots.

Under management conditions similar to those used in the tests, Greathouse said that allowing up to six pigs at one feeder hole provides enough feeding area. Allowing even fewer pigs at each feeder hole does not seem to produce faster or more efficient gains.

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PAC:mfb
2/29/60

FOR RELEASE THURSDAY P.M., MARCH 3, 1960

Baby Pigs Need Iron Source for Top Gains

URBANA--A University of Illinois livestock extension specialist said today that baby pigs definitely need a source of iron to make maximum weight gains.

At the same time, G. R. Carlisle added that baby pigs not receiving a supplementary iron source in a U. of I. test did not show iron deficiency symptoms. But they didn't gain as much as their littermates that received iron.

Carlisle reported these new research results at the U. of I. Swine Growers' Day.

The research tests compared effectiveness of three different sources of iron: peptonized iron, iron dextran and pelleted iron. (These materials sell under various trade names.) One control group of pigs received no iron source. All pigs were on test from 3 days until 42 days of age.

Pigs receiving iron dextran and peptonized iron made the best gains. They also gained about the same amount.

The control pigs and the pigs receiving iron pellets did not gain as much as the other two groups. But their gains were still satisfactory.

Control pigs had the lowest level of iron in the bloodstream. They did not, however, develop iron deficiency symptoms.

In another test, nutrition workers gave baby pigs ferric ammonium citrate as an iron source. Results were not satisfactory.

In wrapping up his report, Carlisle advised hog producers to continue giving a supplementary source of iron to baby pigs. The increased weight that iron sources produce becomes more important as profit margins continue to shrink.

PAC:mfb
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FOR RELEASE THURSDAY P.M., MARCH 3, 1960

Young Pigs Like Rolled Oats in Creep Rations

URBANA--Hog producers attending the University of Illinois Swine Growers' Day program today learned that adding rolled oats to baby pig creep rations encourages young pigs to start eating.

Livestock extension specialist G. R. Carlisle reported a U. of I. study that sought a more palatable ration for baby pigs. In the study swine research workers compared two complete, fortified creep rations.

One ration featured corn and soybean meal as the two main ingredients. The other contained 35 percent of rolled oats.

Results showed that pigs receiving the rolled oat rations ate more creep feed than pigs eating the corn and soybean meal ration. There was little difference, however, in rates of gain between the pigs.

Swine workers offered another group of pigs a choice of either ration. This test clearly showed that the young pigs preferred the rolled oat ration. As a matter of fact, they ate twice as much of it as of the corn and soybean meal ration.

If young pigs won't eat, they won't gain weight. Therefore Carlisle encourages hog producers to use some rolled oats to increase palatability of creep rations.

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FOR IMMEDIATE RELEASE

This Year's Flu Virus Infrequent Visitor:

URBANA--Scientists have learned that this year's Asian influenza virus is an infrequent visitor.

The flu that had much of the United States miserable and groggy early this year was caused by the same type of virus that swept the country in 1889, Dr. C. A. Brandly, dean of the University of Illinois College of Veterinary Medicine, reported today.

He points out that people attacked by this virus develop antibodies. Prior to the early 1960 virus invasion, the only people carrying antibodies for this particular virus were over 70 years old.

Scientists call these periodic flu invasions pandemics. To be pandemic, a disease must attack everywhere throughout the world, and the attack must be relatively severe.

Man isn't the only victim of Asian influenza, said Dr. Brandly. Being a friendly organism, this virus finds temporary housing in other animals, including horses and swine.

Swine apparently first got the flu from man during the 1918 pandemic. Although the 1918 type of flu virus has not bothered man since that year, it has continued to cause active flu infections in swine year after year.

Dr. Brandly participated in the International Conference on Asian influenza held in Washington last week. The primary interest of this conference focused on present and future means of controlling these periodic virus invasions. Attention was also given to evidence that the Asian influenza virus may have risen and spread from animals on the Chinese mainland.

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For immediate release

FOR IMMEDIATE RELEASE

"Chemicals in Agriculture" Featured
at UI Farm and Home Festival

URBANA--A simple and inexpensive method of destroying tree stumps with chemicals will be featured in the "Chemicals in Agriculture" section of the 1960 University of Illinois Farm and Home Festival March 31 and April 1-2.

In recent U. of I. tests, "Stumpfyre" completely destroyed 80 percent of all stumps tested, explains Charles Walters, U. of I. forester who helped to develop the new chemical.

Here's how Stumpfyre works: Walters bores six-inch vertical holes throughout the stump and pours 1/4 cup of Stumpfyre into each hole. He lets the chemical soak into the wood for two or three months--and then sets it afire.

The Stumpfyre-saturated stumps may smoulder from one to three weeks before they are completely burned out, Walters explains.

The Festival's "Chemicals in Agriculture" section is designed to show the important contributions chemicals make to modern-day farming.

It's main features include the Stumpfyre exhibit, demonstrations of new soil-testing techniques, exhibits showing the role research plays in developing and promoting the safe use of insecticides and fungicides, and a demonstration of spraying equipment and control of spray drift.

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2/29/60

NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

1959 Farm Earnings Drop More than Half on Some Illinois Farms

URBANA--Some Illinois farmers experienced more than a 50 percent drop in 1959 earnings compared with 1958.

Preliminary figures from actual farm records were released this week by University of Illinois agricultural economists A. G. Mueller and D. F. Wilken. A sample of 50 central Illinois cash-grain farms showed a decline in capital and management earnings from $9,223 to $4,236. These farms, averaging 287 acres, showed a drop in per acre earnings from $32.82 to $14.76. Operator's labor charged at hired man's wage rates has been deducted from these figures.

The tenant's share of labor and management earnings on these same farms dropped from $4,276 to $1,644.

Mueller and Wilken credit most of this drop to a 4 percent increase in operating costs and a drop in cash receipts. Although parts of this area were hit by drouth, corn yields on these farms averaged 81 bushels, only about three bushels below 1958. Soybeans averaged 30 bushels, only about two bushels less.

Final figures on northern Illinois hog and cattle farms are not yet available, but they are expected to be substantially lower.

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However, a sample of 25 hog and cattle farms in southwestern Illinois showed a sharp earnings drop. These 295-acre farms averaged capital and management earnings of $9,783 in 1958 and $3,635 in 1959. Per acre earnings dropped from $33.16 to $12.32.

The economists explain that the drop on these farms was due to lower cash income from livestock sales, particularly hogs, and to a change in value of inventories. These inventory losses reflect real losses in income unless market prices for hogs recover more than they have so far in 1960.

Dairy farmers did not fare so badly as the grain and livestock men. A sample of St. Louis area dairy farms showed a drop in net earnings from $26.98 in 1958 to $21.13 in 1959.

Mueller and Wilken point out that these account-record income figures from farms cooperating in the Illinois Farm Bureau Farm Management Service will differ from income estimates reported by the U. S. Department of Agriculture. The USDA figures are based on agriculture as a whole industry. Their income estimates per farm are based on estimates of total net income divided by number of farms.

The economists emphasize that these income changes must be considered with respect to the past two or three years. Hog farm earnings were relatively high in 1958. Grain farm earnings were at moderate levels in 1957 and 1958.

When 1959 incomes are compared on a cash balance basis, they do not show so much decline as net earnings. But farmers tend to maintain cash levels by selling off inventories and failing to replace capital equipment, the economists point out. These adjustments can maintain a cash position temporarily to meet family living needs. But unless the farm situation recovers, this practice only postpones the farmers' financial problems, Wilken and Mueller conclude.

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FOR IMMEDIATE RELEASE

High Feeder Prices Cut 1959 Cattle Feeding Returns

URBANA--High feeder cattle prices dropped 1959 feeding returns sharply below 1958 for Illinois farmers.

In the 21st annual feeder cattle report issued this week, University of Illinois agricultural economist A. G. Mueller reports that feeder cattle prices were $6.50 to $9 a hundred pounds higher in the fall of 1958 than a year earlier. But when farmers sold their fat cattle they received only $.50 to $1.50 more.

As a result, the returns above feed costs on long-fed steer calves dropped from $52 to $17 a head. Long-fed yearling steer returns dropped from $43 to $22. Short-fed steers returned $26 a head above feed costs compared with about $50 the year before.

The returns above feed costs are what a farmer has left to pay for his labor, management, interest on his investment and depreciation on buildings and equipment.

Feeding returns on the long-fed systems were the lowest in the past five years, Mueller reports. The short-fed feeding programs were also lower than 1958, but above the five-year average. Short-fed cattle benefited from the higher prices during April and May.

Feeding margins, the difference between cost of gain and selling price, were the most favorable part of the 1959 feeding picture. Farmers sold their cattle for $7 to $9 a hundred pounds above feed costs. But much of this margin was offset by the loss between high prices paid for feeders and the selling cost of fat cattle, Mueller explains.

The 1959 figures also predict slim profits, if any, from cattle marketed in 1960. Feeder prices were not much lower last fall than in 1958. Fat cattle prices are now $1 to $2 a hundred below last year.

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FOR IMMEDIATE RELEASE

Speaking Program to Spotlight "Chemicals in Agriculture"

URBANA--The University of Illinois' Farm and Home Festival will focus its spotlight Friday, April 1, on one of the most publicized topics in recent months, "Chemicals in Agriculture."

Four top speakers will examine four different phases of this subject: (1) Justification of Chemicals in Food Production, (2) The Safety of Chemicals in Food Production, (3) Legal Control of Chemicals, and (4) Effect of Chemicals on the Consumer's Health."

The speakers are George C. Decker, Illinois Natural History Survey; Thomas Jukes, American Cyanamid Company; Dr. Paul Day, Federal Food and Drug Administration; and Mark H. Lepper, head, Department of Preventive Medicine, U. of I. College of Medicine, Chicago.

Speakers will discuss more than 20 other topics during the three-day Festival speaking program. For example, on Thursday, March 31, a trio of national farm leaders will examine "Ways to Improve Farm Family Income."

These men are Kenneth Hood, assistant secretary, American Farm Bureau Federation; James Patton, president, National Farmers Union; and Dorsey Kirk, worthy overseer, National Grange.

Several other speaking program topics include (1) a portable flower garden, (2) current developments in livestock marketing and livestock health, (3) families and their food habits, (4) corn, swine and cattle performance testing results, (5) home furnishings and (6) atomic energy in the service of agriculture.

Dates for the Festival are March 31 - April 2. It will be held on the U. of I. Urbana campus. All interested persons are invited to attend.

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NO

FOR IMMEDIATE RELEASE

Sorghum Yields Still Climbing

URBANA--Grain sorghum hybrids are getting better all the time. Yields soared to 115 bushels per acre last season in University of Illinois trials. And the hybrids outyielded common sorghum varieties by 44 percent.

This fairly new business of hybrid sorghum breeding has clear sailing for the moment, says P. W. Watkins, U. of I. agronomist. Unlike corn, sorghum appears to have some way to go before physical factors put the brakes on yield power built in by plant breeders.

Sorghum yields many also get a boost from different management practices. The questions of planting rates and row spacing figure in current sorghum research.

Some hybrid sorghums match high corn yields even now. However, their real place at present is on droughty soils--sands and claypans--where at 50 bushels per acre they often outyield corn by 40 to 50 percent.

The 1959 U. of I. grain sorghum variety trials covered four locations in central and southern Illinois. Yields of nearly 40 varieties are listed in a soon-to-be-released experiment station bulletin. It will be available from farm advisers or the College of Agriculture, Urbana.

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RFH:mfb
3/3/60

FOR IMMEDIATE RELEASE

Hampshires Eat Way Into Festival

URBANA--Word is that a Hampshire named Herman may soon be one of the ten happiest pigs in the United States.

He had his "before" picture taken recently at the University of Illinois and was promptly put on a ration with soybean oil meal as the sole protein supplement.

It's supposed to do wonders for his figure.

A colleague named Sherman, we understand, is matching Herman gulp for gulp, but on a ration that contains a mixture of soybean oil meal and an animal protein supplement.

It's reported that Herman and Sherman will appear in the flesh at the University's Farm and Home Festival March 31 to April 2, with the idea that Herman will be "bigger" than Sherman by that time.

We hear that all the "smart" money is going on Herman. The College of Agriculture, significantly enough, has run this test before. The soybeaned pigs (Hermans) have usually come out as good as or better than the Sherman pigs getting a combination of soybean oil meal and an animal protein supplement like tankage.

The belief has been that hogs need both an animal and a plant source of protein. But now it seems that the Herman ration containing only soybean oil meal puts on more economical gains.

Some of the explanations we heard: Soybean oil meal has all the essential amino acids, and in the correct ratios. It is also the cheapest source of supplementary protein in the midwest.

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Just recently we stopped out at the swine barn to see Herman and Sherman and found that there were two whole pens of them, four Hermans in one and four Shermans in the other.

The hog specialists weren't embarrassed about this at all. "This is to average out individual differences in pigs," said one.

"A representative Herman and Sherman will be selected for the Farm and Home Festival," said another.

"Oink," said one of the Shermans.

The Hermans kept silent and continued to eat their corn and soybean oil meal.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

College of Agriculture Alumni Set Annual Meeting, April 1

URBANA--C. A. (Cap) Mast, Chicago, will be the featured luncheon speaker at the University of Illinois College of Agriculture Alumni Association meeting on Friday, April 1.

Mast graduated from the University in 1934. Since that time he has served as assistant farm adviser in La Salle county and as editor and publisher of Agricultural Leader's Digest. He is now executive secretary of the Millers' National Federation. In 1959 he received one of four National 4-H Alumni Awards.

The association business meeting will begin at 11:00 a.m. in the Illini Union. Fred Hoppin, president, Lincoln, will preside. Roy Yung, Springfield, is chairman of the annual meeting program. The first Agricultural Recognition Award will also be presented.

Association directors for the current year are Bill Mason, Clarendon Hills; Marvin Martin, Alexander; Bill Dimond, Lovington; Curt Eckert, Bellville; and Don Lee, Mt. Vernon.

All persons who have ever attended the College of Agriculture, including the Winter Short Course, are invited to this meeting. Luncheon reservations should be sent to Karl E. Gardner, Secretary-Treasurer, 104 Mumford Hall, Urbana by March 28.

The 1960 Farm and Home Festival takes place March 31 to April 2 on the University campus at Urbana.

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FOR IMMEDIATE RELEASE

Corn Borer Activity Depends on Weather

URBANA--Farmers who are anxious about Mr. Corn Borer's 1960 plans had better keep an eye on the weather. Whether or not this damaging insect causes trouble depends entirely on weather conditions and farming practices.

This word of advice comes from H. B. Petty, extension entomologist with the University of Illinois and Illinois Natural History Survey.

He reports that certain weather conditions can wipe out borers almost overnight. The following conditions, however, help borers to grow and multiply: (1) cool weather until corn planting time, (2) a mild summer, (3) average or above-average rainfall and (4) calm weather during the corn borer moth flight in June.

Certain farming practices will help to control the corn borer. Clean plowing, thorough shredding of stalks that are not plowed under and use of adapted hybrids are three examples.

A recent count showed a smaller than average number of borers spending the winter in Illinois cornfields. This has also been true of the past three years.

Entomologists are not sure, however, whether this means that the borers have reached the low point in their current population trend. If they have, their numbers may increase this year.

The largest numbers of overwintering borers are located north and west of a line running from St. Louis to Kankakee. Even in this area the amount of infestation varies from county to county.

All farmers, however, should keep a sharp watch on early-developing cornfields.

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FOR IMMEDIATE RELEASE

Farmers to Meet Free-Loaders

URBANA--Farmers will get a chance to meet some hidden enemies at the University of Illinois Farm and Home Festival March 31 to April 2.

They will get a good look at some of the many different kinds of parasites that can find a home in livestock.

These free-loaders may be harbored deep within the animal, or they may be too small to see without a microscope. The hidden guests account for a big chunk of the feed bill.

The pig alone can serve as a four-footed motel for some hundreds of parasites of several different kinds. Because the pig is the most important income-producing animal in Illinois, a special display will electrically trace the path of one major swine parasite, the pig ascarid, through the pig's body.

College of Veterinary Medicine staff members and students will stand by to answer questions.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Automation Exhibit Planned for UI Farm and Home Festival

URBANA--Planning ahead is the key to building an efficient automatic feed-handling operation.

That's why University of Illinois scientists made "Feed Automation: For Progress--For Profit" a major exhibit for the 1960 Farm and Home Festival, March 31 and April 1-2.

Main purpose of the exhibit is to help farmers put together the mechanized feeding system best suited for their individual feeding requirements, explains Wendell Bowers, U. of I. agricultural engineer.

To meet this goal, scientists divided the exhibit into six major areas. The six areas show examples of commercially available storage bins, feed meters, blenders and grinders, conveyors, distributors and automatic controls--the basic components of an automatic feeding operation.

A complete automatic feeding system will be in operation in the center of the exhibit area to show how these parts are brought together into one unit.

Bowers says too many farmers rush into mechanized feeding without first studying how each piece of equipment will fit into their total feeding program.

Breaking an automatic system into six basic parts and showing numerous examples of each part should help farmers select the mechanized system best suited to their farming operation, he explains.

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FOR IMMEDIATE RELEASE

Four Illinois 4-H'ers to Attend National Conference

URBANA--Four of Illinois' top 4-H Club members will represent the state's more than 71,000 4-H'ers at the 30th National 4-H Conference in Washington, D. C., April 23-29.

The Illinois delegates are Audrey Gronert, 19, Arlington Heights; Marlene Douglas, 20, Karnak; Howard Herrmann, 19, Dunlap; and David Winkelmann, 19, Ashland.

Selection to attend the National 4-H Conference is the highest honor a 4-H member can earn, explains Frank Mynard of the state 4-H staff.

Mynard says the Illinois delegates were chosen for the high qualities of leadership they have shown, their outstanding achievements in 4-H Club work and the active part they have taken in project and community activities.

Four outstanding delegates from each state attend the National 4-H Conference each year. Features of the trip include educational tours to historic places in and around the capital city, visits with top government officials and a full schedule of discussion meetings.

Mrs. Alice Hare and Frank Mynard, members of the state 4-H staff, will accompany the Illinois delegation as state 4-H staff representatives and chaperons.

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NEWS FROM AGRICULTURE
UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

U. of I. Farm and Home Festival
Plans Quarter-Mile Exhibit Trail

URBANA--Snow and cold late-winter weather have not frozen the plans and preparation work for the third annual University of Illinois Farm and Home Festival March 31 to April 2.

Festival Chairman K. A. Kendall reports that all exhibits, programs and special features are on schedule for the three-day exposition on the University's south campus at Urbana.

This year's festival presents an exciting exhibit trail more than a quarter of a mile long showing how agricultural scientists, veterinarians and home economists are providing opportunities for better farming and better living.

Festival visitors will follow the exhibit trail through five buildings and a specially erected headquarters tent. In the stock pavilion, they will see the latest storage units, metering devices, grinders, blenders, conveyors and distributors that are used for modern feeding automation. In this area they will also see displays showing how livestock research has benefited farmer and consumer with improved health for animals and man.

The exhibits trail leads on to the agricultural engineering research laboratory, where a wide array of agricultural advances made possible through chemistry are on display. New techniques in soil testing; proper nozzles for applying pesticides and herbicides; Stumpfyre,

-more-

the new chemical developed by forestry scientists for getting rid of stumps, and use of radioactive isotopes to study nutrition are included.

Another exhibit shows the contribution of the College of Agriculture in improving international relations. Since World War II, more than 1,300 agricultural specialists from 77 countries have obtained training at the University.

Next door, in the agricultural engineering tractor laboratory, an exhibit on "Soybeans--Gold From the Prairie" will reveal new varieties, new row spacing recommendations, the soybean cyst nematode threat and the many uses for soybean products. Two pigs, one fed on soybean meal as its only protein source, will provide living proof of the value of soybean protein in livestock rations.

Nearby another exhibit shows how records serve as tools for progress in agriculture. Beef cattle performance tests, dairy cow milk production records, hybrid corn yield tests and farm business records processed with the aid of high-speed electronic computing equipment are giving the facts for farming progress.

For the latest ideas for better living at home, the exhibit trail leads to Bevier Hall, the home economics building. Visitors can learn about the new textile labeling law, nursery school activities, quantity food service, new home decorating and lighting ideas and the latest findings in food and nutrition research.

At College of Agriculture headquarters in Mumford Hall, visitors will see two special exhibits, "This Is College" and "Careers for You." Parents and college-age young people will find faculty members and students on hand to answer questions about college costs, housing,

scholarships, part-time work and courses of study and various student activities.

Besides the exhibits, 24 speaking programs on current farm and home topics are scheduled during the Festival. A panel of national farm organization representatives will discuss ways to improve farm family incomes on one program Thursday afternoon, March 31. On Friday afternoon, four authorities will discuss use of chemicals in agriculture.

Other special festival features include the Town and Country Art Show, the Town and Country Talent Show, square and folk dancing and Student Guest and Hospitality Day for high school boys and girls on Saturday, April 2.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

Radio

FOR IMMEDIATE RELEASE

Exhibit to Show How Scientists Safeguard Milk Supply

URBANA--Visitors to the University of Illinois Farm and Home Festival can learn how agricultural scientists across the nation strive to help dairy farmers control insects and yet provide today's families with safe milk.

Experimental studies show that residues of insecticides can enter the cow's milk by (1) cows eating hay or pasture treated with insecticides or (2) farmers spraying or dusting cows with chemicals.

One of the many Festival exhibits will reveal how entomologists with the Illinois Natural History Survey work to protect milk from residues. To do this, workers must determine which insecticides, and how much of an insecticide, dairymen can safely apply to cows and forages.

Part of this job is finding out how much residue insecticides leave behind. Research workers manning the exhibit will show how they find out through biological and chemical methods.

In the biological method, workers take extracts from forages treated with an insecticide. Then they apply the extract to live insects. For the Festival demonstration, they'll use roaches. How the insects react indicates the residue's effect on forages.

In the chemical method, researchers simply analyze milk and forages to see if they actually contain any residue.

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Add Exhibit - 2

The Festival exhibit also features large graphs showing how quickly insecticides disappear from forage crops. Other graphs tell how much treated forage cows must eat before residues can enter milk.

This is only part of the job that agricultural scientists at Illinois and other institutions perform in their work with milk. As a result of their work, they help dairymen keep milk as one of the safest food products Mrs. Homemaker can buy.

Dates for the Farm and Home Festival are March 31 - April 2. The U. of I. College of Agriculture extends a warm invitation to all interested persons to attend.

Incidentally, the Illinois Natural History Survey is located on the U. of I. campus in Urbana.

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3/14/60
NO

FOR IMMEDIATE RELEASE

Snow Threatens Evergreens

URBANA--Disgruntled snow-shovelers in southern and central Illinois had better check their evergreens.

Many upright evergreen shrubs are staggering under a heavy load of snow. If it isn't removed, branches may snap, warns W. R. Nelson, Jr., University of Illinois landscape extension specialist.

Nelson suggests shaking the branches or "sweeping" them with a broom. In some cases homeowners may have to gently shovel the snow off the branches.

Drifts have completely buried low, ground-clinging evergreens in many areas. Since these shrubs are close to the ground anyway, their branches should hold up all right.

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FOR IMMEDIATE RELEASE

Snow Blanket Pushing Back Spring Planting

URBANA--Heavy snow blanketing southern and central Illinois keeps pushing back spring planting, but at the same time is protecting winter wheat and legumes.

Oat planting will already be two weeks late, declares L. A. Joos, climatologist with the University of Illinois College of Agriculture.

Usually 50 to 75 percent of the oats in the southern half of Illinois are planted by April 1. Chances for reaching such a percentage this year are slim indeed.

But the snow has its brighter side. Joos points out that it has protected legumes and the winter wheat crop from bitterly cold temperatures in the past few weeks. Without this insulation, some fields might not have pulled through.

The snow is also recharging the soil's moisture content, much to the farmer's delight.

Joos doesn't believe that the heavy snow offers a chance for flooding unless a warm rain causes run-off. If the snow melts naturally, the soil will soak up the water and store it for thirsty crops later this spring and summer.

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FOR IMMEDIATE RELEASE

Egg Producers Headed For Possible Trouble

URBANA--A 35 percent reduction in the number of pullets hatcherymen are raising this spring could spell serious trouble ahead for Illinois egg producers.

The fewer pullets means that there could be a drastic egg shortage next fall and winter. As a result, egg prices will climb temporarily, bringing good profits to the few producers selling eggs.

But egg prices will inevitably start sliding downward again as more producers raise pullets in an attempt to share the profits.

This up-and-down price cycle is not good for the egg industry, explains S. F. Ridlen. Ridlen serves as the University of Illinois poultry extension specialist.

It's not good for the consumer either. Fewer eggs means skyrocketing prices. And some areas of the state may have fewer eggs on the market.

Ridlen explains that extremely low egg prices in 1959 caused this reduction in pullet hatchings. Making little or no profit, many producers decided not to buy replacement chicks this spring.

Producers can ward off this possible egg shortage and resulting up-and-down prices by getting replacement pullets now. Keeping the market supplied with an even flow of eggs is much healthier for the poultry industry. And it's easier on the producer's nerves and the consumer's pocketbook.

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[illegible] Logistics:

[illegible] Supplies: [illegible]

[illegible] Medical Service: [illegible]

[illegible] Transport: [illegible]

[illegible] Communications: [illegible]

[illegible] Personnel: [illegible]

[illegible] Equipment: [illegible]

[illegible] Supply: [illegible]

[illegible] Maintenance: [illegible]

[illegible] Transportation: [illegible]

[illegible] Medical Service: [illegible]

[illegible] Personnel: [illegible]

[illegible] Equipment: [illegible]

[illegible] Supply: [illegible]

[illegible] Maintenance: [illegible]

[illegible] Transportation: [illegible]

FOR IMMEDIATE RELEASE

Balanced Fertility Program Brings $15-$20 Extra Profit

URBANA--Two Illinois farmers made $15 to $20 extra profit per acre on their corn in 1959 because they followed a balanced high-level fertility program.

Donald Cowling, Edwards county, and Edwin Jansen, Effingham county, averaged corn yields 22 and 27 bushels higher on land they owned than on land they rented. On their own land these farmers had built up their soil with limestone, phosphate and potash. They had also used adequate starter and plow-down fertilizers. The rented land had not had this balanced fertilizer program.

The extra corn yields can add $15 to $20 more profit an acre when yields can be raised from 60 to 87 bushels an acre as Jansen did, report J. B. Cunningham and F. M. Sims, University of Illinois farm management specialists.

Sims and Cunningham supervise the test demonstration farm program in central and southern Illinois. Sixty-one farmers are cooperating with the University of Illinois, their county farm advisers and the Tennessee Valley Authority in showing the way to better farming and farm living through tested farm management methods.

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NEWS FROM AGRICULTURE
UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Cold Weather Destroys Most Peach Buds

URBANA--Frigid March temperatures have dealt peach growers and peach eaters a low blow. An estimated 50 to 100 percent of the southern Illinois peach buds are lost.

In central and northern Illinois, 80 to 100 percent of the peach buds have been destroyed, reports Frank W. Owen, University of Illinois extension fruit crops specialist.

He adds that Indiana, Kentucky and Missouri are in about the same situation. So it looks as if consumers may find peaches scarce and expensive next summer.

Owen explains that even though many buds have been lost, growers across the state hope they can salvage 25 to 33 percent of the crop. This means between 200,000 and 300,000 bushels in Illinois.

In a top growing year, Illinois producers pack up to 800,000 bushels.

How many of the remaining buds develop into full-fledged peaches will depend a lot on how well the weather cooperates. Clear, frost-free weather coupled with warm daytime temperatures is especially important during the bloom season.

Illinois peaches usually bloom during April, beginning around April 1 in the southern part of the state.

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FOR IMMEDIATE RELEASE

Medicinal Products From Animals
Featured at Farm and Home Festival

URBANA--Farm families will see some of the vast number of medicinal products gained from animals at the University of Illinois Farm and Home Festival March 31 and April 1-2.

These products are used to fight disease, relieve pain and restore health to millions of people. They are useful for a wide range of health problems, including the treatment of ulcers, diabetes, rheumatic fever, arthritis and blood disorders.

Research and technology have joined with the farmer to make production of these medicinal products possible. Although some may be extracted easily, others require elaborate and delicate processes. For example, to make a single ounce of insulin, pancreas glands from 7,500 pigs or 1,500 cattle must be properly processed.

Disease treatment and prevention represent only one of the increasingly important uses of animal products. Since only half of the carcass of the better grade animal is sold to the retailer, it is important that the remainder be profitably used. Fats are converted to glycerin, hides to drum heads and intestines to surgical sutures. Horns, hooves and bones are used in processing steel and refining sugar.

The many uses to which these formerly discarded portions of the animal are put, contribute to the farmer's welfare in many ways. They bring him better prices for his animals. They contribute materials essential for progress in research and industry. And they provide medicinal products to safeguard the farmer and his family.

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FOR IMMEDIATE RELEASE

Ag, Home Ec Scholarship Exams March 26

URBANA--High school seniors planning to enter the University of Illinois College of Agriculture next fall might get a scholarship by taking the county competitive examination Saturday, March 26.

Assistant Dean C. D. Smith points out that the College offers more than 200 tuition and cash scholarships. They are offered specifically to freshmen entering agriculture or home economics.

The majority of the scholarships are tuition scholarships--paying tuition fees for four years. These are the scholarships that are awarded on the basis of a competitive examination.

All Illinois counties will give this examination on Saturday, March 26. Interested seniors should contact their principal or county superintendent of schools.

The College also offers cash scholarships. These are awarded on the basis of scholarship and financial need.

They are made available through funds established by the Sears-Roebuck Foundation, the Kroger Company, the Moorman Manufacturing Company of Quincy, the Federal Land Bank of St. Louis and several other organizations.

Students can get applications for cash scholarships by writing to Smith at 104 Mumford Hall, Urbana, Illinois.

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NEWS FROM AGRICULTURE
UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Disease-Free Pig Program Starting in Illinois

URBANA--The disease-free pig program now getting under way will enable Illinois farmers to by-pass 80 percent or more of the common, recurring swine problems, says Dr. G. T. Woods, University of Illinois veterinarian.

Sows have been undergoing scheduled operations at the University of Illinois for several weeks. Veterinarians throughout the state are constructing facilities, setting up equipment and securing the licenses necessary for operation.

There are several advantages to this program, says Dr. Woods. It will enable farmers to avoid such diseases as virus pig pneumonia, TGE, atrophic rhinitis, swine dysentery and external parasites. Because disease-free pigs don't use strength fighting disease-producing viruses and bacteria, they gain faster. They require 100 pounds less feed for 100 pounds of comparable gain than pigs infected with virus pig pneumonia or atrophic rhinitis.

Dr. Woods says the term "disease-free" might be misleading, since it seems to include every disease problem. Baby pigs from this program would more correctly be called "specific pathogen-free" pigs. They are free from those infections most likely to be picked up in the first weeks of life. But such diseases as leptospirosis and hog cholera still require strict control measures.

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Dr. Woods states that nature has provided the means for getting disease-free stock from dams living in diseased environments. The sow's placenta has many protective membranes. After the first 30 days of gestation, it won't permit passage of infective agents. Therefore, until birth, baby pigs are free from disease.

Disease-free pigs are obtained from their dam by hysterectomy two to four days before they would be farrowed. Dr. Woods describes the procedure: The sow is anesthetized, and the abdomen is opened. The uterus is removed surgically and passed through a tank of antiseptic into an enclosed hood.

Within the hood, pigs are quickly liberated. Navels are tied and dipped in iodine. Animals are measured and weighed, ears are notched and all pigs are carefully examined for abnormalities. They are then placed in sterile carrying cases and taken to individual isolation units.

Without colostrum for the first few weeks of life, baby pigs lack the disease-fighting mechanism needed to survive in a natural environment. They can survive if placed in isolation and protected from infectious agents. Breathing filtered air, and feeding on sterilized cow's milk fortified with minerals and eggs, these baby pigs spend the first week of their lives in complete isolation. They are then taken from their individual cages, and small groups are placed in brooders for three weeks. After this they are ready to be transported to a farm.

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FOR IMMEDIATE RELEASE

Gardeners May Find Peaches Extra Valuable

URBANA--Home gardeners with peach trees in their backyards may find the peaches "worth their weight in gold" next summer.

Cold March weather has destroyed at least 60 percent of the commercial peach crop. Therefore the surviving few will skyrocket in value.

A University of Illinois extension fruit crops specialist, Frank W. Owen, believes that homeowners with peach trees in a protected location may find that fruit buds have survived.

To find out, slice open several buds, If they're green inside, they are alive. If they are brown, they're done for.

Cutting a few twigs of new growth is another method. Stick the twigs in water inside the house. If they are alive, they'll bloom within 10 days.

Lucky people with live buds should give trees the red carpet treatment, advises Owen. Fertilize them carefully. If insects or diseases attack them, apply insecticide or pesticide.

It's especially important to check trees now for mice and rabbit damage. Because of the heavy snow blanket, these hungry rodents have gnawed on many fruit trees and other woody shrubs.

Look for rabbit damage above the snow surface. Look below for mice damage. If you find tree wounds, paint them immediately with tree wound paint. This helps the tree to recover much faster.

If mice are nibbling trees, it might be a good idea to put out poison bait.

This extra care will pay off next summer when commercial peaches are scarce and expensive.

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Advantages for Field Operation Lessen Winter's Ills

WINDSOR--Some locations with large areas in Southwestern Ontario and the province "water table" adapt to crops best suited.

Cool, moist weather has developed at least a month in the potential season crop. Conditions are favorable for well prepared to plant.

A knowledge of different varieties truly cause hesitation. Such as, corn, soybeans and tomatoes will need some to a potential problem may find that large area may survive.

To find out, allow open acreage. If the to grow in the. How are active. If then the acres, tomatoes does not.

Choose a few weeks of the growth in growing. Since twice to water health tomatoes. If they are the acres, tomato's lower to days.

Start people with late such annual air temperature. Life not crops planned, surface seed. Establish them carefully. To remove or disease attack dies, apply insecticide or pesticide.

Air's especially important to check crops for rise and crop change. Because of the rainy weather, crops growing undamaged on high land lands and other heavy areas.

Look for radio farmer phone the area weather. Look below the area change. If you find two heavy, point then immediately with the report point. This helps the time to protect crop fruit.

If also the minimum temps, it might be a good idea to put protect fruit.

This extra care will pay off work across more commercial crops are healthy and productive.

FOR IMMEDIATE RELEASE

Festival Shows What Makes Prize Bull So Prized

URBANA--People who often wonder why a prize bull is so prized can learn the answers at the University of Illinois Farm and Home Festival March 31 - April 2.

In the Festival exhibit area called "Animal Products Strengthen the Nation," the College of Agriculture displays some of its most prized livestock. Standing by will be members of the livestock judging team. They'll point out characteristics of these animals that identify them as being top-notch prize winners.

Also on hand will be veterinarians from the College of Veterinary Medicine. Festival visitors can ask them questions about animal health and preventive disease programs.

Some of the animals that visitors can learn more about include a beef cow and calf, a sow with her litter of baby pigs, a quarter-horse mare and foal and a ewe with her lamb. The judging team will also show 4-H and FFA youngsters how to prepare these animals for showing.

Another section of this exhibit area features a display of beef, lamb and pork carcasses. From this display visitors can see the differences between good and inferior carcasses. They can also see a good meat-type carcass with a minimum of fat covering. This is the type of carcass that farmers must continue producing to meet the wishes of today's homemakers.

The three-day Festival offers exhibits and other programs appealing to city folks as well as farm folks. For more detailed information on the Festival, contact your county farm or home adviser.

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FOR IMMEDIATE RELEASE

U. of I. Home Economics Hospitality Day, April 2

URBANA--High school girls from all over the state will gather on the University of Illinois campus Saturday April 2 to hear about U. of I. campus life and opportunities in home economics.

The occasion is Hospitality Day, when home economics students sponsor a special program on the last day of the annual Farm and Home Festival. Registration starts at 8:30 a.m. in Lincoln Hall, with the program set for 9:30.

Louis B. Howard, dean of the College of Agriculture, will greet the girls and welcome them to the campus. Miss Janice M. Smith, head of the department of home economics, will discuss scholarships, college entrance requirements, the home economics curriculum and areas of study and opportunities for graduates.

Miss Ann McNamara, assistant dean of women, will give information on college finances, housing and college activities in general. Representatives from women's group organizations will explain their programs.

The morning session will close with a skit by home economics students portraying some phase of campus life.

A special luncheon is planned for 12:00 noon in the Illini Union and will be followed by a brief student program. Reservations for the luncheon must be made in advance.

The afternoon session will be held in Bevier Hall. Tours have been planned to give the girls an opportunity to observe the facilities available for studying home economics. Students can also view

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the Farm and Home Festival exhibits. A student information service will provide information on entrance requirements, housing, curriculum and registration.

The grand finale for the day will be the Plowboy Prom sponsored by the Agriculture and Home Economics Student Councils. High school students attending Hospitality Day and Ag Guest Day are invited to attend. It's an informal dance calling for jeans and calico as the order of dress.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Note to Editors:

Next week's Farm and Home Festival will be the biggest event of the year for the Colleges of Agriculture and Veterinary Medicine. Thousands of Illinois citizens will view the teaching, research and extension programs of the two colleges.

We hope you will also have time to visit the Festival and get acquainted with the colleges' staffs. We will set up Press Headquarters in the Visual Aids Building, just east of the Agricultural Engineering Building. We'll have hot coffee and a packet of stories for your use.

We hope to see you there.

Hadley Read

Hadley Read
Extension Editor

Oil Dampens Soybean Outlook

URBANA--Sluggish world trade in soybean oil darkens expansion hopes of the entire soybean industry, a University of Illinois agricultural economist said today.

In suggesting a remedy that has implications for U. S. foreign trade policy, T. A. Hieronymus said that the oil fraction should be allowed to seek a competitive price in world trade in edible fats and oils.

Soybean oil cannot be produced without a corresponding amount of oil, Hieronymus explained. If slow world trade stops up oil flow, the resulting surplus will raise meal prices, discourage expanding soybean production and perhaps force soybeans to miss out on ever-widening market possibilities for meal.

Expanding livestock numbers to eat up expanding feed grains should expand the demand for protein supplements. In fact, soybean oil

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meal can't keep up with present demand. A smaller but audible clamor for protein supplements is expected from the growing broiler industry.

According to Hieronymus, if the soybean industry can't rise to the occasion with a realistically priced meal, substitute protein sources may move in--urea, for example.

The marketing specialist hopefully earmarked more and more U. S. soybeans for Europe's upturn in livestock numbers, and he singled out Japan as an ever-promising outlet for soybeans as human food.

A slow business in soybean oil will dampen these plans, Hieronymus said. He urged that less oil be marketed under the P. L. 480 export plan, which keeps the price at an "artificially high" level.

Realistic pricing has kept soybeans out of surplus trouble before, said Hieronymus, and it should be continued if soybeans are to stay in fighting trim to cash in on growing markets.

A display at the University of Illinois Farm and Home Festival, March 31 to April 2, will show why soybeans currently make up one of the most dynamic agricultural industries.

Maps will illustrate current world trade of soybeans and competitors. New trends in utilization will be illustrated. Large-scale cartoons will show how soybeans are processed into meal and oil. And with the live help of an assortment of chickens, a cow with a hole in her side and the Hampshires Herman and Sherman, the exhibit will show why soybean oil meal is a top protein supplement for livestock.

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FOR IMMEDIATE RELEASE

New Treatment for Sheep Parasites

URBANA--Sheep threadworms, which used to "brace" themselves and defy all worm medicines, can now be knocked out by certain cadmium compounds.

These compounds have been used commercially to control swine ascarids, report Dr. Norman D. Levine and Dr. Joseph Szanto of the University of Illinois College of Veterinary Medicine. Now these compounds may offer a new and effective way of controlling sheep parasites.

Test lambs given various levels of cadmium iodide, oxide and chloride have remained free from infection for three to four months. However, Dr. Levine adds, treatment must be balanced against possible weight losses resulting from the use of such compounds. Lambs undergoing cadmium treatments lose from four to six pounds.

Although threadworms seldom kill an animal, they weaken lambs, cause diarrhea and retard growth. By the time infected animals are a year old, they usually develop an immunity to the worms. Adult animals, however, remain carriers and transmit the threadworm larvae to newborn lambs.

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FOR IMMEDIATE RELEASE

Two Hundred Artists To Exhibit

URBANA--Two hundred artists have been selected to exhibit at the fifth annual Town and Country Art Show at the University of Illinois March 31 through April 2.

The show, a feature of the Farm and Home Festival, is sponsored by the University of Illinois College of Agriculture in cooperation with the College of Fine and Applied Arts. It will be set up in the south wing of Bevier Hall, lower level, and will be open from 9:00 a.m. to 9:00 p.m. on Thursday and Friday and from 9:00 a.m. to 3 p.m. on Saturday.

All of the artists are amateurs and represent a cross-section of rural and urban Illinois. The roster lists teachers, doctors, lawyers, homemakers, engineers, farmers, carpenters and nurses. A number of the artists are senior citizens who have adopted art as their hobby and are exhibiting for the first time.

The entries were selected from 22 area shows held throughout the state. Because of limited space for the University show, not more than 10 percent of the entries in any one area show and not more than two pieces by any one artist could be selected, regardless of the quality of the work.

Members of the College of Fine and Applied Arts will serve as a jury for the show and conduct the gallery tours. The jurors are Professors Mark T. Sprague, Eugene C. Wicks and Harry F. Breen, Jr.

The schedule for the gallery tours is as follows: March 31, 10:30 a.m., Raymond B. Brown; April 1, 10:30 a.m., Glenn R. Bradshaw; April 2, 10:30 a.m., Walter Miller Johnson; and April 2, 2:00 p.m., Donald E. Frith.

Two handicraft demonstrations will be given. George D. Shaner, instructor in art, will demonstrate ceramic work on March 31 at 2:00 p.m. Betty Ann Street, instructor in home economics, will demonstrate weaving techniques on April 1 at 2:00 p.m.

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FOR IMMEDIATE RELEASE

Illinois to Fatten More "Home-Grown" Cattle

URBANA--A University of Illinois animal scientist said today that feeder cattle production in southern Illinois is on the upswing.

At the same time W. W. Albert said that many central and northern Illinois farmers could profitably increase their cow herds.

Albert explains that western feedlots are cutting into the available feeder stock supply. And more southern farmers are fattening their own feeders rather than shipping them north.

Low transportation costs of midwest grains are also encouraging southerners to produce, as well as fatten, more cattle.

In light of these facts, Albert believes that Illinois farmers may look for feeder stock closer to home. As a result, the southern Illinois region could profitably turn out more and more feeders.

Other Illinois farmers could also produce more feeders. They can increase their cow herds to take advantage of low-quality roughages once regarded as having little feeding value.

Research shows, for example, that corn stalks and corn cobs have considerable nutritional value for cow herds.

With other regions fattening more cattle, the midwest today produces only 71 percent of the fed cattle. During the 1930's the corn belt fattened 83 percent.

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FOR IMMEDIATE RELEASE

Talent Show Matinee April 1

URBANA--The Town and Country Talent Show will be held at the University of Illinois Friday, April 1, at 3:15 p.m. in Gregory Hall Auditorium.

The show is a special feature of the Farm and Home Festival. Local shows were scouted, and acts from nine counties were selected for the University show. Participating counties are Lee, Lawrence, Will, Cass, Tazewell, Rock Island, Washington, Schuyler and Brown.

E. H. Regnier and Ruth Dickens, recreation specialists, College of Agriculture, are in charge of the event.

The program will include one-act plays, vocal and instrumental musical numbers and dance numbers. Group participation is encouraged, and most of the numbers will be staged by community groups and family groups. The plays are Community Theatre productions.

Tickets for the matinee may be purchased at any of the Farm and Home Festival registration desks or at the ticket window in Gregory Hall just before curtain time.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR RELEASE THURSDAY, MARCH 31, 1960

U. of I. Alum Tells Russian Experiences

URBANA--Floor scrubbing is woman's, not machine's, work.

Mrs. Anne Anderson, told a University of Illinois Farm and Home Festival audience today that she overheard Nikita Kruschev, Soviet Prime Minister, give this opinion at the American National Exhibition in Moscow last summer.

From her station as a demonstrator in the electronic kitchen at the American Fair, Mrs. Anderson, Associate Editor, Better Homes and Gardens, observed many things about the Russian people.

Because she speaks Russian fluently, Mrs. Anderson was able to talk with exhibition visitors. They included the Soviet Prime Minister, touring the fair with Vice President Richard Nixon. According to Mrs. Anderson, when Mr. Kruschev expressed disapproval of so many work-saving gadgets, Mr. Nixon asked him if it were not possible that such labor-saving devices would free people to do more productive work. Mr. Kruschev agreed.

The American Exhibition was open daily for six weeks, giving three million Soviet people a glimpse of how Americans live, work and play.

Mrs. Anderson, a 1952 U. of I. graduate, illustrated her Festival talk on "Kitchen Diplomacy in Moscow" with slides of Russian people shopping, working and spending their leisure time.

Her talk will be repeated at 10:30 a.m. Friday in Lincoln Hall Theater.

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FOR IMMEDIATE RELEASE

Higher Soybean Prices Not Expected

URBANA--Soybean prices cannot go up and remain higher between now and October 1, a University of Illinois agricultural economist declared today. Lower prices seem probable.

T. A. Hieronymus said the most optimistic prospect is that the Commodity Credit Corporation can hold soybeans at about their current price next summer.

Here is how Hieronymus appraises current soybean market developments:

1. CCC is willing to sell its entire stock at 20 cents over the loan price, which is about equal to current prices. This sales policy puts an effective lid on the price.

2. Soybean supplies are plentiful. There will be a substantial carryover of about 50 million bushels.

3. At present CCC does not have enough soybeans to make its resale price effective in the market. It has 21 million bushels under control, but it will need 50 million to control the market price.

4. The CCC can get the remainder of the supply needed to control price only if the price goes down to about the loan price.

5. Prices will probably go down so that soybeans under loan will be taken over by CCC.

6. Farmers can profitably redeem soybeans under loan at current prices. If more than 21 million bushels are redeemed and sold on the market, CCC will not get enough beans to affect market prices next summer. Such redemption could take place if soybean prices hold near present levels for the next six weeks.

7. If CCC has no control over price, the market price for old beans could drop to equal that of new crop beans.

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FOR RELEASE THURSDAY, MARCH 31, 1960

Disease-Free Pigs to Boost Productivity

URBANA--Swine farmers using disease-free stock will get more animals to market quicker while using less feed, Dr. G. T. Woods, University of Illinois veterinarian today told a Farm and Home Festival audience.

These farmers will see their young pig losses reduced. They will watch their animals gain .4 pound more per day than average pigs. The disease-free pigs will use 100 pounds less feed for 100 pounds of comparable gain.

Dr. Woods said the success of the disease-free pig program in Nebraska highlights the extent to which disease holds back animal production. He said, "We know that disease is costing money, but it takes a positive program such as this one to point out just how much money the viruses, bacteria and parasites attacking swine can cost."

This program is the result of work done by Dr. George A. Young, a veterinary scientist now at the University of Nebraska. Dr. Young was seeking a means of obtaining specific pathogen-free pigs for research. Such stock is important to scientists who want to study a disease without having other infections complicate or mask their findings.

However, the same process that provides specific pathogen-free pigs for research can be used to provide animals for swine farmers. The success of the limited disease-free program in Nebraska indicates a widespread potential for this program.

According to Dr. Woods, the disease-free program will be in operation throughout Illinois in the next two to five years, depending upon how quickly farmers accept it. Although the original cost of surgically obtained pigs may seem high, farmers getting a late start in disease-free programs should be able to buy less expensive second-generation stock from farmers who are already following the program.

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FOR IMMEDIATE RELEASE

Heavy Cropping Hurts Soybeans

URBANA--So-so yields, dwindling income and a tired soil are results from 13 straight years of soybean rotation studies at the University of Illinois.

Other results: Yields, income and soil turned out better where soybeans were grown in a four-year rotation with corn, small grain and meadow.

The corn-soybean rotation enjoyed some profitable years at first, reports A. L. Lang, U. of I. agronomist. But by the fourth year the soybean yields were averaging four bushels lower than those from the longer rotation. Yield averages over the entire 13 years were 26 bushels per acre from the two-year rotation and 31 bushels from the four-year rotation. Net income returns followed the same trend.

A cash-grain farmer can't count on commercial fertilizer to offset the effects of long-term continuous croppings, says Lang. He also needs such tilth improvers as manure (if that's possible) and longer rotations.

Years of high-level tillage burn up organic matter and break down soil aggregates, Lang explains. Even though the soil might have plenty of nutrients, it won't have the water-holding capacity to make good use of them.

And a dry year really rips into profits. At the agronomy plots in the dry 1959 season soybeans from the corn-soybean rotation yielded only 55 percent of the previous four-year average. Soybeans in the longer rotation yielded 73 percent of the previous level.

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3/28/60

FOR RELEASE FRIDAY, APRIL 1, 1960

Shade Stalemates Corn Yield

URBANA--A University of Illinois agronomist today gave some shady reasons why corn yields aren't getting much higher much faster.

It's partly because one plan shades another, said E. B. Earley at the University of Illinois Farm and Home Festival. He said that if sunlight could get to all the lower leaves, corn would yield up to 230 bushels per acre--that's assuming a well-watered and fertile soil and a planting rate of 16,000 plants per acre. However, said Earley, get 16,000 plants together and you have self-shading, with consequent lower yields.

He added that the Department of Agronomy would continue its light studies to determine periods in corn growth when light is most critical, and to look for hybrid strains that do well under crowded and shady conditions.

R. H. Hageman, a biochemist in agronomy, followed Earley on the program and related the light problem to an enzyme in corn called nitrate reductase. This enzyme has a key role in protein production, and it tends to be less active when there's a shortage of light, Hageman said.

He added that efforts would be made in plant breeding to develop hybrids with high nitrate reductase activity. "They may be more likely to give top performance under conditions of low light intensity," Hageman said.

Getting a livelier nitrate reductase enzyme should also slow down the incidence of nitrate poisoning in livestock, Hageman stated.

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He explained that nitrate reductase acts as a valve in regulating the reduction of nitrate into protein. If the enzyme is sluggish or overloaded, nitrate accumulates in the plant and increase the nitrate threat to livestock.

According to Hageman, the race for higher yields is putting pressure on the nitrate reductase enzyme. Heavier fertilizer applications are giving it more nitrate to reduce into protein, and higher plant populations are blocking out sunlight and thus robbing the enzyme of some of its effectiveness.

Also speaking on corn yields was U. of I. and USDA soil scientist Doyle Peters. He said that Illinois soils generally have enough moisture for today's yields, but that top soil moisture may put a limiting on the super-yields in sight for the future. According to Peters, some research currently focuses on preventing the huge amounts of soil moisture evaporation that goes on in midsummer.

As for fertilizers, agronomist S. W. Melsted said, "We already know how much nitrogen is needed for 200- or 300-bushel corn and can stock the soil accordingly. But at present corn simply can't use that much."

Melsted felt that major refinements in fertilizer techniques would need to wait on improvements in other areas of corn production.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR RELEASE THURSDAY, MARCH 31, 1960

Individual Farmer in Weak Bargaining Position, Economist Declares

URBANA--Sweeping changes in the livestock market organization has left the average farmer in a difficult position to evaluate alternative market outlets, a University of Illinois livestock marketing economist declared this week.

E. E. Broadbent stated that a farmer today must tie in with some organization to help him realize the full value of the stock he has to sell. This may be either a private or a cooperative agency, he pointed out.

The rapid changes in marketing livestock are due to quick communication, modern roads, quick cure of meats, advances in refrigeration and processing equipment, change in types of producing units and size of retail outlets and obsolescence in packing plants and facilities. These forces have played havoc with the older established livestock market organization.

Broadbent described the closing down of the major slaughtering plants at Chicago as part of "the steady evolution in the rise, domination and decline in relative importance of terminal markets in our livestock economy."

He pointed out that, in 1923, 77 percent of the hogs slaughtered under federal inspection were sold through terminal public markets. Today less than 40 percent are sold through terminals. Today

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over half of all market hogs are sold directly to local packers or country buyers. Along with this change has come the dispersion of packing and processing plants to points closer to where livestock are produced.

Cattle and hog slaughter in Illinois has now fallen below the numbers produced on Illinois farms. But the packing industry still maintains a considerable volume of business in the state, Broadbent pointed out. He reported that Swift and Co. is now building a new plant in Rochelle. Hormel is planning a move to a location near Princeton. Reports are that Rath Packing Co. is anticipating a move to Columbus Junction, Iowa, just across the Mississippi River from major Illinois hog-producing areas.

Whether these marketing changes are good or bad for the livestock industry, Broadbent said, depends on the answers to these questions:

1. How well informed are producers when they make direct sales at their local marketing points?

2. Do farmers compare prices paid and service rendered for the same classes of livestock at different market outlets?

3. Does the change in market structure alter the competitive situation?

4. Are market prices guiding production so that producers are sending to market the kinds of animals that make products consumers want to buy?

Whether a farmer sells at the country point or at the terminal market is not too important if he is as well informed as the buyer or has someone represent him who is as well informed. But, operating on his own, the livestock producer may not be in an equal bargaining position, Broadbent concluded.

Broadbent spoke before the opening-day session of the University of Illinois 1960 Farm and Home Festival.

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FOR RELEASE SATURDAY, APRIL 2, 1960

American Hybrid Corn Helping Turks Fight Communism

URBANA--American hybrid corn is helping an ancient land preserve its modern democratic form of government.

Various hybrids, tested in plots near the birthplace of St. Paul at Tarsus and the ruins of Cleopatra's palace, are showing modern Turkey how corn yields can easily be doubled.

A University of Illinois corn breeder today described his experiences in helping Turkish scientists select American hybrids and develop modern production practices for their country.

R. W. Jugenheimer estimated that use of American hybrids combined with good practices is equal to a gift of 1 1/2 million acres of additional good corn land for Turkey.

The Turks have great faith in American know-how. They are working hard to build the country's economy to a high level and bolster it against Communism, Jugenheimer concluded.

He spoke at a session during the final day of the 1960 Farm and Home Festival on the University of Illinois campus.

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FOR RELEASE FRIDAY, APRIL 1, 1960

High Interest Shown in Farm Corporations

URBANA--High capital needs, taxes and inheritance problems are creating an intense interest in the farm corporation among many Illinois farm families.

A University of Illinois professor of agricultural law, N. G. P. Krausz, told a Farm and Home Festival audience today that the corporate organization offers real advantages in some cases. It permits a simple transfer of ownership by means of stock shares. It also allows continuous operation in case a shareholder leaves the business or dies.

Krausz pointed out certain fringe benefits that are deductible as corporation expenses. Such benefits to employees as group insurance, medical and hospital insurance, pension plans, death benefits, deterred compensation and stock options can be worked out in a corporate organization. These are not available to an individual proprietor or a partnership.

But a farm corporation is not all honey and roses, Krausz pointed out. A corporation has certain organization costs, state franchise taxes and legal obligations to meet in carrying on its business. It must elect a board of directors and officers and make annual reports to the state.

Krausz listed these features of a farm business that would make it desirable to consider a corporate form of business: larger farms of at least 300 acres, high income, numerous heirs, high risks, desire for specialization or desire for continuous management.

He pointed out that incorporating may make it possible to hold an economic operating unit together from one generation to the next. The prejudice against bigness is disappearing, and incorporating is not so complicated as many farmers might think, he concluded.

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FOR RELEASE SATURDAY, APRIL 2, 1960

Farming Opportunities for Young Men
Limited; Capital Needs High

URBANA--Today's pressure to make farms larger is sharply reducing the new opportunities for young men to enter farming each year.

University of Illinois agricultural economist F. J. Reiss reported today that under present conditions only about 12 to 15 young men will be able to start farming each year for every 1,000 farms. If farms were to remain the same size, there would be about 25 farming opportunities.

Reiss urged young men who are thinking of starting farming to be sure they will have a large enough farm to make full and efficient use of their labor. He pointed out that one man alone can now farm up to 200 acres with some livestock.

If fathers and sons are thinking of going into partnership and both plan to spend full time on the farm, he urged them to make sure their farms are large enough to use the labor of two men efficiently.

Capital requirements are also high for farming today. Reiss reported that tenant farmers on the most productive Illinois land have investments of $14,000 to $17,000. This total includes machinery, livestock, feed, grain and seeds.

In budgeting their capital needs, young farmers should not overlook family living needs until the income flow has been established, Reiss emphasized.

Young men who start farming get their capital from savings, gifts, loans from or backed by parents and relatives, and production loans from banks and other lenders.

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Reiss stated that father-son operating agreements offer one of the best methods of letting a young man get established in farming.

The father usually furnishes land, machinery, livestock and some labor to start. The son furnishes all of his labor and possibly some capital. The net returns are divided according to the amount each contributes to the operation. This may be as much as 70 percent to the father and 30 percent to the son in the beginning. Gradually the son's share is increased as he furnishes more operating capital along with his labor.

Fathers and sons who are considering a farming agreement were urged to be sure they could work together in harmony. Under such agreement the son should also have a chance to make some decisions of his own and not just "ride along" with his father's program.

Separate and adequate living facilities are very important in insuring successful relationships when the son is married, Reiss pointed out. Prompt settlements and sound business methods based on written agreements and accurate accounting are also needed to make an agreement work successfully he concluded.

Reiss spoke before a session of the University of Illinois Farm and Home Festival that ended today.

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FOR RELEASE FRIDAY P.M., April 1, 1960

Chemist Defends Ag Chemicals at UI Farm and Home Festival

URBANA--It takes at least five years of extensive testing and costs at least a million dollars to put a new agricultural chemical on the market, an American Cyanamid Company chemist said today.

Speaking before a University of Illinois Farm and Home Festival audience in Urbana, Dr. Thomas H. Jukes said the health and vigor of Americans is a tribute to the role this research plays in protecting the nation's food supply.

Jukes asked those in the audience who had traveled in other countries, especially in the tropics, to recall the large swarms of flies and other insects they saw.

These pests contaminate the food supply and spread disease, he said.

"Our freedom from these plagues in the United States is due to the use of insecticides. And any small risk attached to this use is far outweighed by the benefits to public health," Jukes explained.

Speaking about aminotriazole, the weedkiller of recent cranberry fame, Jukes said many chemists believe its danger to the public is negligible.

The amount of aminotriazole in cranberries that were sprayed with the weedkiller was only a minute fraction of the amount needed to produce a measurable effect on humans, he said.

In fact, many pathologists doubt that aminotriazole is even cancerous to rats, Jukes said.

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FOR IMMEDIATE RELEASE

Corn Tests Get Practical

URBANA--Commercial hybrid corn testing at the University of Illinois is aiming for "on-the-farm" conditions.

Agronomist E. R. Leng this week said that U. of I. test plots were mechanically harvested for the first time in 1959. Hand harvesting had determined hybrid yields before.

"As another way to match farm conditions, test plots are now tilled and fertilized regular style. And this year we will use mechanical planting," Leng said.

"All this is designed to supply Illinois farmers more practical guides in selecting commercial corn hybrids."

Leng was speaking at the University of Illinois Farm and Home Festival held at Urbana.

Leng said the College of Agriculture tested 523 hybrids last season at ten locations scattered throughout the state. Each year the results are published in the bulletin, "Performance of Commercial Corn Hybrids in Illinois." The 1959 results are contained in Bulletin 651, available from the College of Agriculture, Urbana, or from any farm adviser.

In selecting hybrids, Leng had these suggestions for farmers:

--Draw on long-term performance information, such as that given in the Illinois bulletin. Several years of test results are more reliable than single-year figures.

--Discuss choices with your salesman or seed representative, and talk over additional recommendations he may have.

--Select several hybrids for planting. It's risky to put all eggs in one basket unless you have found one hybrid that is absolutely perfect for your farm.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR RELEASE THURSDAY P.M., MARCH 31, 1960

Calls for United Farmer Action to Solve Problems

URBANA--The commodity by commodity approach to solving the farm problem is the road to confusion, disunity and disaster for American agriculture, an American Farm Bureau Federation official declared here today.

Kenneth Hood stated that proposals for solving a particular commodity problem must be sound not only for that commodity, but also for agriculture as a whole. Each proposal must be appraised on the basis of how it will affect that commodity and other commodities as well, he emphasized.

He pointed out that, since commodities often differ, solutions of individual commodity problems may not always be the same. But what happens to one commodity may injure others. If we dump wheat in the feed market, other feed grains are hurt, he pointed out. Then all livestock areas are affected. If supports on cotton seed are raised, soybean growers may get the market.

He called for producers to reconcile commodity differences among themselves. Otherwise final decisions will be made by others whose interests are not always consistent with the interests of farmers, he pointed out.

Hood cited the importance of international trade to farmers. About 10 to 15 percent of all agricultural products have moved into

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export in recent years. Producers who do not sell products directly for export also benefit from foreign trade, he pointed out. The cotton producers who have to cut their acreage because they can't sell abroad will grow beef, produce milk and raise vegetables in competition with other producers.

We can have bigger foreign markets, but we have to earn them, he declared. Foreign countries must be able to earn dollars. We must compete in price and quality. And we must supply what is wanted when it is wanted. If we want to sell more, we must buy more, he asserted.

Hood criticized efforts to regulate wages and hours of farm workers.

"We recognize the rights of labor to organize and bargain for wages and better working conditions. But we deplore efforts to organize farmers and increasing activity designed to determine agricultural policy," he declared.

Hood fired a parting blast at those who would "solve the farm problem by fixing prices, doling out the right to produce, and putting farmers in a strait jacket of allotments, quotas and other restrictions."

"To help adjust production to market demand, we support realistic price supports to promote orderly marketing, an increased conservation reserve, a new wheat program and continuation of the Agricultural Act of 1958 for corn, feed grains and rice.

"It is our belief that farm organizations should speak, act and bargain for farmers--not labor, business, government or any other group," he concluded.

Hood spoke before an opening-day speaking session of the 1960 Farm and Home Festival on the University of Illinois campus. The Festival, featuring exhibits, speaking programs, a Town and Country Art Show and other special features, runs through Saturday.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

Special: Farm and Home Festival News Coverage

FOR RELEASE FRIDAY P.M., APRIL 1, 1960

UI Specialist Says Pesticide Ban
Could Shatter Nation's Economy

URBANA--A national ban on pesticides could completely shatter the nation's economy and reduce American farmers to the status of those in underdeveloped countries, a University of Illinois entomologist warned today.

Speaking before a U. of I. Farm and Home Festival audience in Urbana, Dr. George C. Decker said the average citizen takes our bountiful food supply more or less for granted.

Few Americans realize the important role pesticides and other chemicals play in maintaining our high standard of living, he said.

"If the use of agricultural chemicals were banned tomorrow, the yield of many crops would be reduced 10 to 90 percent," Decker explained.

"The price of most food items sold in stores would double, some would treble, while still others, notably fruits and vegetables, would totally disappear from the open markets," he added.

Decker said cultivated crops grown in North America are attacked by over 3,000 economically important species of insects, by as many plant diseases and by unestimated numbers of nematodes, rodents and weeds.

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"Estimates of the destruction caused by agricultural pests range somewhere between 8 and 15 billion dollars annually--a quarter of our annual production--and this despite the widespread use of the best control practices now available," he said.

Decker blasted those who criticize pesticides by citing residues and other hazards that may be associated with their use.

"I know of no other group of chemical or mechanical tools used by so many different people under so many diverse conditions that comes even close to the safety record established in the field of pesticide usage," he said.

Speaking about the recent cranberry "fiasco" and other incidents involving pesticides, Decker said they "involved minor errors in judgment and misuse. None has posed a real public health hazard."

Decker scorned the policy of "letting nature take its course" in insect control which "some individuals thoughtlessly advocate."

If we did this, Decker said, "it's possible the experts would find disposing of the 200,000,000 surplus human beings even more perplexing than the disposition of the infamous wheat surplus."

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Illinois Land Prices Drop 1 Percent

URBANA--The booming farm land market of recent years has collapsed. The latest U. S. Department of Agriculture reports show that Illinois farm land values dropped 1 percent from July to November last year.

The best farms offered for sale in recent months show a decline of $25 to $100 an acre, reports University of Illinois agricultural economist F. J. Reiss.

Reiss lists three major causes for the downtrend: relatively low net returns, high mortgage interest rates and high-equity capital requirements to pay off remaining debt.

Farm business records show that many landlords have been getting only about a 3 percent return on their capital investment in land that has been selling for $600 an acre. Many investments with comparable security are yielding higher returns, Reiss points out.

First mortgage interest rates are now at 5 1/2 to 6 percent. These rates are about double the present earning power of money invested in well-managed good farmland at recent high prices.

Reiss figures that with current returns to landowners and 6 percent mortgage interest on $600 land, the buyer with a 50 percent down payment would earn only enough to pay the interest on his debt. He would have nothing left to pay off the principal. The tenant who goes in debt to buy a farm would almost certainly reduce his level of living to meet interest and principal payments.

Installment land contracts reduce the required down payment. But the remaining debt is a large portion of the total purchase price, and interest charges are much higher than when down payments are larger. The higher interest cost and principal might add up to more than the total net income from the farm under present conditions, Reiss concludes.

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FOR IMMEDIATE RELEASE

TGE Heavy During Spring Farrowing

URBANA--TGE is killing more young pigs this spring than it has in the last four farrowing seasons, reports Dr. J. R. Pickard, University of Illinois extension veterinarian.

While traveling throughout the state speaking to farm groups, he has received many reports of severe losses caused by this disease. Although TGE appears to be following its usual pattern of sporadic outbreaks, when it strikes an area this spring it strikes hard.

Dr. Pickard says there is no specific treatment for TGE, but the disease can best be prevented by careful management. In addition, the infection follows a predictable pattern. This enables the farmer-veterinarian team to plot control measures if TGE gets into a herd. However, the TGE virus does vary in its ability to produce disease, to produce immunity and to exist outside an animal's body.

Dr. P. D. Beamer, University of Illinois professor of veterinary pathology, recommends that farmers handle TGE as follows: Farmers who suspect this disease should get a prompt diagnosis from their veterinarian. If TGE is found, sows yet to farrow should be isolated from those that have farrowed.

The farrowing house should not be used for at least two weeks, during which time it should be thoroughly cleaned and disinfected. Sows ready to farrow during this two-week period should be isolated elsewhere on the farm or shipped to market.

Normal farrowing operations should be resumed after this break. However, farmers should not expose sows and the young pigs that

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use the farrowing house after the two-week break to sick or recovered animals. The result is that farmers end up with two groups of swine on the farm. One group is either sick or recovered. The other is healthy.

Farmers must then insure that no infective material is transferred to healthy pigs. Different men should take care of each of these groups. Each man should use separate equipment.

Dr. Beamer notes that sows losing a litter to TGE are often sold. However, these animals can be rebred and will usually have a healthy litter at their next farrowing.

Another practice is sometimes used when TGE breaks out. Thirty days before sows are to farrow, some farmers expose them to infected pigs or to the intestinal contents of animals killed by TGE.

While this method may appear successful, Dr. Beamer points out that it has many risks that must be carefully considered. Infecting sows in this manner may allow them to develop some immunity which they might pass to newborn animals. This may give some protection to young pigs during the first weeks of life. However, when he infects sows, the farmer creates a large pool of infection that may persist and spread to clean animals and to neighboring farms.

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FOR IMMEDIATE RELEASE

Radioactive Isotopes Play Key Role in Agriculture

URBANA--Radioactive isotopes play a key role in helping agricultural scientists unlock more information about the growth of plants and animals.

As a matter of fact, the isotope is the most important tool yet developed for studying the life processes of plants and animals. This report comes from University of Illinois animal biochemist B. Connor Johnson.

He explains that a radioactive isotope gives off a radioactive ray as it decomposes. Therefore it's easily traced as it travels through an animal or plant.

As a result, scientists can use isotopes to label, or mark, biologically active materials, such as vitamin E. The scientists inject this material into an animal. As the material moves through the animal's body, they keep an eye on it. They see where it goes, how it changes and where the changes take place.

In the long run, this information helps research workers determine why animals require vitamin E.

As another example of the isotope's usefulness, Johnson cites radioactive Sulfur-35. Scientists inject a dose of this material into a sheep. They watch it travel immediately through the animal's body and into the wool.

Two weeks later the scientists give the sheep another dose. Again they watch it enter the wool. The wool is now marked by a

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radioactive "label" in two places. By measuring the distance between the two labels, workers can tell how much the wool grew during the two weeks.

During the two weeks, they can also study the effect of other factors on the amount and type of wool growth. Some of these factors are light, temperature and type of food.

Eventually animal scientists will take this new-found knowledge and develop methods to help sheep grow better wool.

Johnson reported that radiations are another important contribution of atomic energy to agriculture. Through radiation treatments, geneticists are learning more about basic studies in genetics. They are also able to induce genetic mutations in plants, producing flowers like the combination red-and-white carnation.

Radiations are also valuable in insect control. Wiping out the screw-worm fly from Florida is an excellent example. To do this, workers sterilized thousands and thousands of male screw-worm flies. Then they turned them loose to hobnob with normal female flies. It wasn't long before Flordia's screw-worm population declined rapidly.

In summing up, Johnson says that both radiations and radioactive isotopes are a valuable aid to veterinarians. They serve as extremely effective tools in diagnosing and treating farm animal diseases and injuries.

Johnson gave this report at the U. of I. Farm and Home Festival Saturday April 2.

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FOR IMMEDIATE RELEASE

"Pupils" Attend Sheep-Shearing Schools

URBANA--Nearly 90 "pupils" are attending two-day schools in Illinois to master the skill of shearing sheep.

These sheep-shearing schools are staged by the University of Illinois Agricultural Extension Service. The first one got under way at Dixon March 28-29. The Dixon Springs Experiment Station at Robbs hosts two schools -- April 4-5 and April 6-7.

A session at Urbana April 11-12 wraps up the 1960 schools.

Serving as "teachers" are livestock extension specialists Harry Russell, Dick Carlisle, Don Walker and Terry Greathouse. They report that most of their pupils are vo-ag students, 4-H members and farmers.

Most students attend so that they can learn to shear their own sheep with more speed and skill. But some students take on outside shearing jobs, earning extra money.

Several graduates of previous schools have gained national recognition for their quality and quickness of shearing. They can trim off a sheep's coat in almost unbelievable time.

The Extension Service has staged these schools for 22 years. They are so popular that the schools meet their enrollment quotas months in advance.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Note to Editor: This is the first of two stories on the proposed federal milk order for central Illinois.

Paper Containers, Cost Pressures
Merge Central Illinois Milk Market

URBANA--Paper containers, improved transportation and refrigeration and cost pressures on milk dealers to increase volume have merged central Illinois into one major milk-marketing area.

Separate and distinct markets for packaged milk in each town and city have practically disappeared, reports R. E. Jacobson, University of Illinois dairy marketing economist. A complex criss-cross pattern of milk distribution routes has been established across 28 counties in central Illinois.

One chain of six bottling plants extends its routes into all 28 counties. Several other large handlers operate routes in most of these counties. Smaller local plants must compete with these larger handlers, Jacobson points outs.

At the same time, a substantial volume of packaged milk originating in other areas is distributed in central Illinois. In a recent month Chicago handlers shipped nearly 2 1/2 million quarts of milk into central Illinois.

Actually central Illinois producers do not supply enough milk to fill the needs of this area, Jacobson reports. Many handlers must therefore get milk from surplus areas of Wisconsin, Iowa and Minnesota.

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As a result, producers in the central Illinois area are exposed to price-depressing effects of outside surplus supplies. Many milk handlers pay relatively low prices to nearby producers and at the same time pay higher prices for outside milk they must buy to fill their needs.

Mainly for these reasons the U. S. Department of Agriculture has recommended that milk marketing in 28 central Illinois counties be subject to federal regulation, Jacobson reports.

Under a federal order, handlers selling milk in this area would be required to pay at least a minimum price per hundred pounds to producers for milk each month. The minimum price would be established (1) to reflect feed costs and other conditions affecting supply and demand for milk, (2) to insure an adequate supply of pure and wholesome milk and (3) to be in the public interest.

Through federal regulation it is hoped that some of the milk-marketing problems in central Illinois could be solved, Jacobson explains. Producers selling to regulated handlers would all receive the same minimum price for their milk. They would be paid for their milk according to the way it is used.

Under present conditions milk producers in this area receive a flat price somewhere between Chicago and St. Louis federal order blend prices. They frequently receive less than a bottling milk price for milk used for this purpose. Under the federal order producers would receive special compensatory payments when milk was shipped into the market from outside unregulated sources.

With a federal order, dealers would also compete more equitably. They would all pay the same minimum class prices for milk.

Grade A milk producers in central Illinois will vote in the near future on whether they desire a federal order as a means of attempting to stabilize their milk market. If two-thirds vote favorably, a federal milk marketing order will be put into effect soon afterwards.

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FOR IMMEDIATE RELEASE

Note to Editor: This is the second of two stories on the proposed federal milk order for central Illinois.

Economist Explains How Federal Milk Order Operates

URBANA--The proposed federal milk order in 28 central Illinois counties would set minimum prices to be paid to producers. But it would not regulate retail and wholesale milk prices, points out University of Illinois dairy marketing economist R. E. Jacobson.

Prices to producers are determined by using a classified price plan. Under the proposed plan, Class I milk would include all milk going into bottles. Class II milk would include all milk not needed for bottling and used for such products as butter, ice cream and cheese.

Jacobson states that central Illinois producers would receive a Class I price of 34 to 40 cents per hundred pounds above the Chicago Class I price. In 1959, this price would have averaged about $4.05 a hundred pounds, ranging from $3.75 in the spring to $4.40 in the fall. The Class II price would have averaged $3.02 a hundred pounds.

Producers actually receive a blend price, Jacobson explains. This price is an average between Class I and Class II, depending on how much of the milk goes into each use. The higher the proportion of milk going into Class I, the closer the blend price will be to the Class I price.

Prices are based on a 3.5 percent butterfat content. For each additional .1 percent of butterfat, about 7 cents per hundred pounds would be added to the price. Deductions would be made when butterfat content fell below 3.5 percent.

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Federal milk orders are authorized by the Agricultural Marketing Agreement Act of 1937. They are already in effect in 78 markets, including Chicago, Rockford-Freeport, the Quad-Cities and St. Louis, served by Illinois milk producers.

Milk plants will come under the central Illinois order if half of their volume is bottled milk and 20 percent of it is sold in the 28-county area.

Administrative cost for the federal order would run about 4 cents a hundred pounds. Milk handlers would pay this cost according to the amount of milk received. Producers not belonging to cooperatives would pay 5 cents or less per hundred pounds for marketing services they received.

Under the order local producers woul be protected from outside surplus supplies through special compensatory payments. Pool plants would be required to make these payments into a fund for local producers when they bought and bottled milk from outside sources not under federal order.

A federal order does not replace the producer cooperatives, Jacobson emphasizes. The order sets only a minimum price. Cooperatives may bargain with handlers for a price above the minimum. They also perform the usual services, such as locating the market for the producers' milk. Federal orders have been most successful when supported by strong cooperatives.

At present the Department of Agriculture has recommended an order for the 28-county area. A final decision and order are expected soon from the Secretary of Agriculture. Then dairy farmers who sell to the proposed regulated plants will vote on whether they want the order to become effective. Two-thirds of those producers voting must approve the final order before it can be issued.

Although the election date has not been set, Jacobson expects that it will be sometime in May or June.

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(map enclosed)

UNIVERSITY OF ILLINOIS
AGRICULTURAL CONFERENCES
Urbana, Illinois

COLLEGE OF AGRICULTURE and the
DIVISION OF UNIVERSITY EXTENSION

FOR IMMEDIATE RELEASE

Illinois Bankers Plan Annual Ag Conference, April 26-27

URBANA--About 250 Illinois bankers will meet here April 26-27 to hear about and discuss current agricultural problems.

During the annual two-day conference, they will hear about the latest agricultural outlook, different systems of swine production, economics of selecting machinery, selecting farm enterprises, determining a borrower's capacity to pay, personal characteristics of a good credit risk, the beginning farmer and his banker and farm service departments in action.

R. A. Stipes, director of the Champaign National Bank, will tell why the bank has a farm service department. Darryl R. Frances, vice president, Federal Reserve Bank of St. Louis, will speak at the Tuesday evening banquet on "The Banker and Farm Credit Needs."

The conference is sponsored jointly by the Illinois Bankers Association, the College of Agriculture and the Division of University Extension.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

(Note to Editor: This packet contains the first two in a series of four stories on "Farm Adjustment Problems of the 1960's" prepared with the assistance of four University of Illinois agricultural economists.)

Farm adjustment problems of the 1960's--No. 1

Rapid Change: Major Cause of Farm Income and Adjustment Problems

URBANA--Changing world markets and a revolution in farming methods and techniques have squeezed incomes below the break-even point on many farms.

Farm price trends in recent years reflect the changing supply and demand situation in world markets, points out Harold G. Halcrow, head of the University of Illinois department of agricultural economics.

Since World War II, farmers around the world have stepped up their production. The result over the past six years has been continued downward pressure on prices.

At the same time, far-reaching changes in farming methods and techniques have been taking place. In the United States during the last 20 years, the number of man-hours worked has dropped one-third while output per man hour has more than doubled. Total sales per farm have more than doubled. And if present trends continue, the number of farms in 1970 will be less than half the number in 1940.

Government can assist in bringing about adjustments needed in modern agriculture, Halcrow points out. But policy makers must give more attention to the kinds of adjustments that are required, he emphasizes.

Halcrow suggests these areas of most needed adjustment in United States agriculture at this time:

Young people must be offered broader opportunity. Farming can profitably absorb less than 40 percent of the young people growing up on farms in this country. Opportunities in agricultural service industries are expanding, however.

Government programs must allow for a "fluid economy," not one that restricts farmers' production and marketing decisions. Programs must be appraised carefully and objectively to see that they will really lead to a more prosperous agriculture.

In Illinois a reform in the revenue system is needed to relieve the heavy tax load on farm real estate. If other sources of revenue could be found to reduce the burden on farm land, the future of Illinois agriculture would be more favorable.

In appraising the long-term outlook for Illinois agriculture, Halcrow believes several factors provide some favorable signs:

Strong demand is expected to continue for meat and animal products, commodities which Illinois agriculture has an economic advantage in producing.

The St. Lawrence Seaway and industrial development could stimulate growth in the midwest and expand local markets.

With expanding markets will come new opportunities to further develop the marketing and processing system.

The problem of achieving sufficient family farm units will remain important for years to come. Intense competition for land will probably continue. Financing larger units will continue to be an important problem. There is no easy road in the adjustment process, Halcrow concludes.

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FOR P.M. RELEASE FRIDAY, APRIL 15, 1960

Irradiation Affects Vitamin K in Beef

CHICAGO--A University of Illinois animal biochemist revealed today that preserving beef by irradiation destroys about half of the beef's vitamin K content.

B. Connor Johnson hastened to point out, however, that this isn't so bad. Other food preservation methods also destroy certain vitamins. For example, heating knocks out vitamin B-1.

The College of Agriculture biochemist reported this finding at the American Institute of Nutrition meeting in Chicago.

Johnson explained that irradiation is gaining popularity as a method of preserving food without heating, refrigerating or freezing it. Nutritionists aren't sure, however, how irradiation affects vitamins, minerals and other elements in food products. To find out, scientists across the nation are continually searching through numerous research projects.

The U. of I. animal biochemists, headed by Johnson, tackled the mystery of irradiation's effect on vitamin K in beef. This vitamin, incidentally, prevents hemorrhaging, or uncontrolled bleeding.

The biochemists fed irradiated beef to two groups of rats. The first group did not receive a dietary source of vitamin K. Why? It had previously been thought that rats did not need it--whatever vitamin K their body tissues needed was manufactured internally.

After eating the irradiated beef for several days, male rats in the first group suffered hemorrhages, some of which were fatal.

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Females did not hemorrhage. They do not require nearly so much vitamin K as the male rat does.

The second group of rats did receive a dietary source of vitamin K along with the irradiated beef. None of these rats, male or female, suffered hemorrhaging.

These findings indicate that irradiation destroys most of the vitamin K in beef. As a result, both animals and man need a supplementary source of vitamin K when they eat irradiated meats.

In wrapping up his report, Johnson emphatically said that irradiated meats do not cause hemorrhaging. The lack of vitamin K causes this trouble.

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FOR IMMEDIATE RELEASE

Farm Adjustment Problems of the 1960's - No. 2

U. S. Faces Three Major Farm Problems

URBANA--The people of the United States face three major agricultural problems. University of Illinois agricultural economist L. H. Simerl sums them up this way:

1) Many farm families have incomes so low that all people should be concerned.

2) Many taxpayers object to the amount of money now being used for farm price and income support programs. They think it could be spent more wisely for other public and personal uses.

3) Some of our present surplus disposal programs are losing friends for us in foreign countries.

Farmers' incomes differ much more than incomes of any other group in America, Simerl points out. In Illinois some farmers make over $10,000 a year while others make less than $2,000.

At least half of all commercial farmers, as defined by the government, can get little benefit from any price support program because their volume of production is so small. The tax-paying public cannot be expected to put up money for programs to help poorer farmers when they see most of it going to help higher income farmers, Simerl said.

The farm price support program and related programs cost over $5 billion in the last fiscal year and $19 billion for the last five years. This does not include amounts spent for conservation,

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rural electrification, farm credit, research and education, reclamation, school lunches or interest on national debt to finance farm support programs.

Our wealthy nation can afford this much and more. But is it good use of the people's money? Simerl asks.

Food and other aid from the United States after World War II helped keep much of western Europe from going Communist. The informed people in these countries appreciate this assistance, Simerl believes.

Now, however, many friendly countries think our farm programs have injured their economies. Our government sells wheat to foreign buyers for 50 to 70 cents a bushel below what U. S. millers pay. Friendly wheat-producing countries, such as Canada, Australia and France, feel that this is unfair condition. They cannot afford to pay similar export subsidies to their wheat growers.

When our price support programs hold prices above the world market, they attract exports from other countries. This leads to restrictions on imports. The exporting countries feel that if we are their friend we should buy from them. They want to sell to us so that they can buy from us.

So the problem is not one of lowering our living standards, but of raising our standards, holding old friends and making new ones, Simerl concludes.

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FOR IMMEDIATE RELEASE

U. of I. Tests All-Purpose Vertical Elevator

URBANA--A towering, all-purpose vertical silage elevator that will elevate chopped corn silage, grass silage or small grains has passed rugged test trials at the University of Illinois.

The elevator is designed to work with either forked flights or buckets, explains Floyd Herum, U. of I. agricultural engineer. The forked flights elevate forages. Buckets handle both grains and forages.

Last fall a test elevator equipped with forked flights poured 72 tons of chopped corn silage into a 46-foot silo at rates of 20 to 23 tons per hour. These rates were rather low because the silage was dry.

In other tests a similar elevator equipped with buckets elevated 12 tons of chopped alfalfa per hour. Later the same buckets elevated 10 tons of high-moisture shelled corn per hour to a height of 40 feet.

The vertical giant is powered by a five horsepower electric motor. In all tests power costs ran less than 1/2 cent per ton.

Key to the elevator's success is a special intake section tilted upward at a 45-degree angle. The design minimizes wedging and sticking--a problem that has stymied previous attempts to design a working vertical silage elevator.

Since the new elevator is mounted on wheels, it is easily towed from one place to another. And, using the tractor power-take-off to operate a lifting winch, two men can put it up in 30 minutes.

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Herum says there has long been a need for a general-purpose vertical elevator. Forage blowers require large power units and have definite height limitations. They often crack small grains.

Conventional inclined elevators, used widely for grain, baled hay and even chopped forage, require excessive length for tall structures.

Although further research is needed, the new vertical elevator looks as if it might be the answer to general-purpose silo-filling problems.

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FOR IMMEDIATE RELEASE

Tilt-Up Concrete Walls Economical, Easy to Build

URBANA--Fast, low-cost construction and rugged wear are three main advantages of new tilt-up concrete construction for farm buildings, explains Ed Hansen, University of Illinois agricultural engineer.

Hansen says tilt-up concrete walls are best suited for single-story buildings, such as cattle sheds, machine sheds or loose-housing dairy barns. They can be built and erected on the farm with farm labor.

Tilt-up concrete construction is unique and simple. Builders cast the walls in eight- to ten-foot sections either on the floor of the building or in a smooth bed of sand.

After curing, they tilt the sections in to their final vertical position and fasten them together to form the completed wall.

Two or three men can put the walls up, Hansen explains. All they need is an angle iron, a chain and a tractor-mounted manure loader. They simply attach the angle iron to the top of the concrete panel, connect it by chain to the manure loader scoop and tilt the wall into position.

Using this method, U. of I. agricultural engineers erected ten by ten foot concrete panels in a matter of minutes in recent construction tests, Hansen explains.

For further information on tilt-up concrete construction for farm buildings, write to the Department of Agricultural Engineering, University of Illinois, Urbana.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Installment Land Contracts Find Wide Use

URBANA--Buyers and sellers of Illinois farm land are finding installment contracts to their mutual advantage.

Dividing payments over several years provides income tax savings to sellers. And buyers who are short of funds might not be able to acquire land if they could not arrange for installment terms.

N. G. P. Krausz, University of Illinois professor of agricultural law, recently completed a field study of 43 installment land contracts.

He reports that in three of these contracts no down payment was made. The rest provided for down payments ranging up to 25 percent of the total sale value.

Lengths of contracts varied, but the majority ran from 5 to 20 years. About half allowed unlimited prepayment privileges. Annual interest on the unpaid balance varied from none to 5 1/2 percent.

Krausz found that those entering into the contracts usually had an attorney draw up the contract.

All parties to land contracts feel that it is very important to be able to get along well with the other party. Krausz observes that in some cases too much faith has been placed in the integrity and fairness of the other person and written agreements have not been clear or comprehensive enough.

With long-term contracts, one party may not live until the whole contract term is completed. The other party may have to deal with the spouse, heir or administrator of an estate. For this reason clear and complete written contracts are the best policy, Krausz concludes.

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FOR IMMEDIATE RELEASE

Farm Adjustment Problems of the 1960's, No. 3

Prices and Costs Forcing Illinois Farm Adjustments

URBANA--Pressures from lower prices and rising costs are forcing Illinois farmers to adjust their farming operations.

W. N. Thompson, University of Illinois professor of farm management, cites these major shifts in Illinois agriculture during recent years:

Farms are getting larger and the number of farms has dropped. In 1950 Illinois had 195,000 farms. In 1954, there were 175,000. Now there are fewer than 165,000.

Larger farms can operate with lower costs per acre. Studies by University agricultural economists show that labor, machinery and building costs average about $10 an acre less on 300-acre than on 150-acre grain farms.

Farmers are specializing their livestock production and expanding the size of each enterprise. Larger operations often have cost advantages. For example, farm records show that farmers averaging 43 litters of hogs a year produced pork for about $2 a hundred pounds less than farmers raising only 11 litters.

Farmers have shifted to grain crops that produce the most feed and highest income per acre. They have boosted corn output through higher yields. Southern Illinois farmers are growing more corn and soybeans. They have also stepped up wheat planting in east-central and southeastern Illinois. Many farmers have dropped low-profit oats from their cropping programs.

Corn has maintained its importance in corn-belt agriculture. Illinois farmers, planting 10 to 12 percent of the total U. S. crop in

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recent years, have set new records in the proportion of U. S. corn acreage grown in the state.

Fertilizer use has been the biggest change in farming. Farmers applied eight times as much nitrogen in 1958-59 as they did 10 years ago. Soluble phosphate use is about 2 1/2 times greater. Potash application has tripled.

Beef cattle production has increased, while dairy cow numbers have dropped. Some of this change is due to mechanization of the feeding operation and lower labor required for beef cattle.

Farmers are using more machinery in the field and on the farmstead. They are giving more and more attention to mechanizing livestock chores. Chemicals to control weeds and insects are being used more widely.

Government programs have not been a major influence in farming adjustments. As a result of allotments and price support programs, however, farmers have stepped up practices that increase yields.

They have also planted more wheat than they would have if the price support program had not allowed a 15-acre planting for every farmer. Corn allotments may have resulted in more soybean and oat acreage in some years. The Soil Bank Conservation Reserve program has been significant in a few southern Illinois counties but has had little effect in the state's total farm output.

Looking to the 1960's, Thompson expects farmers to continue to produce large acreages of feed grains and soybeans. Research and experience have shown them that with a balanced fertility program they can maintain high yields with continuous grain cropping on the better soils. Nitrogen fertilizer use will expand.

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Livestock production will move toward more confinement and control of environment. In this way farmers will seek more economical use of their labor, buildings and equipment and thus free land for grain production.

Farm size will continue to increase along with business volume per farm and per man. Interest in farm corporations will increase as farmers seek to obtain needed capital and make farm ownership transfers easier.

Thompson expects that government agricultural programs will continue, but the nature of the programs is uncertain. If these programs are to be in the best interests of Illinois farmer, they should encourage adjustments that will permit farm families to use their capital, labor and management ability more fully, he concludes.

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FOR IMMEDIATE RELEASE

Higher Corn Prices Expected This Summer

URBANA--Corn prices are likely to show weakness for the next 30 to 60 days and then climb up to the loan redemption price by mid-summer, a University of Illinois agricultural economist said this week.

Speaking before the Illinois Grain Dealers' Management conference, T. A. Hieronymus listed these factors in the current grain market picture:

Wet corn still appears to be a problem on some farms. It must be sold soon. Sale of this corn will probably cause a soft market during the next 30 to 60 days.

Farmers will probably put enough corn into loan to force prices up to the redemption rate by summer. This will be about 5 to 7 cents a bushel above the current price.

Farm stocks are higher than they were a year ago on April 1. But it appears that corn is being used about 8 percent faster this year than last.

Even with reduced hog production, Hieronymus expects that corn use for the marketing year ending October 1 will top 4 billion bushels, a new record. But with the huge 1959 crop, the carryover will be large and surplus build-up will continue.

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FOR IMMEDIATE RELEASE

Synovex-H Impairs Breeding Ability of Heifers

URBANA--Farmers who breed beef heifers that have received Synovex-H will find that it's not such a good idea.

University of Illinois beef cattle tests show that this hormone seriously impairs breeding ability.

In the tests, research worker George E. Mitchell, Jr., gave Synovex-H implants to a group of 24 heifers. He placed these heifers and a group of 20 "control" heifers on similar rations. All of the animals were on feed for 112 days. During the feeding period, implanted heifers outgained control heifers by an 11 percent margin.

The implants, however, produced irregularities in the estrus cycle of every treated heifer. They did not affect all of the animals in the same way. Some heifers came into heat repeatedly every three to ten days. Some never came into heat. Others had cycles of normal length mixed with irregular cycles.

To further check the effect of Synovex-H, the workers placed a bull with heifers in heat during the last six weeks of feeding. Later eight of these implanted heifers were slaughtered. Only one showed evidence of pregnancy.

On the basis of this test, Mitchell and his co-workers still recommend Synovex-H as an implant for heifers. But they do not advise breeding heifers that have received implants.

The University of Illinois beef cattlemen believe that stilbestrol may have similar effects on breeding beef heifers.

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Ideologies are highly structured patterns of cognitive beliefs and attitudes.

The intensity of attitudes based on ideologies depends on the degree of ideological thinking.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

U. of I. Self-Fed Ewes Doing O.K.

URBANA--University of Illinois animal scientists announce that two groups of self-fed ewes are maintaining their weight and bloom surprisingly well even though their ration contains 60 percent corncobs.

Shepherd Bennie Doane explains that few economy-minded sheepmen self-feed ewes. The ewes usually eat too much, laying on more fat than they need.

The U. of I. seems to have solved the problem by loading the ration with corncobs. Here's an approximate breakdown of the complete ration: (1) 60 percent corncobs, (2) 24 percent cracked corn, (3) 6.8 percent ground alfalfa meal, (4) 7.3 percent soybean oil meal, and (5) minerals.

Before lambing, the ration contained less cracked corn. As a matter of fact, it featured up to 70 percent corncobs. Doane admits that similar ewes eating corn silage rations outperformed the self-fed ewes during gestation. The silage-fed ewes also received less corn during this period.

After lambing, workers upped the corn content of all rations. Since then self-fed ewes have consistently maintained their weight and bloom equally as well as ewes receiving silage. Incidentally, the silage rations are hand-fed.

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All of the ewes have lambs, and the majority have twins. Workers will continue self-feeding the ewes until lambs are weaned in May.

The animal scientists believe they are feeding the self-fed ewes more economically, since labor costs have been cut. They plan to make a full report of this study at the U. of I. Sheep Day program next fall.

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Farm Adjustment Problems in the 1960's--No. 4

Markets Must Dictate Production Adjustments, Economist Declares

URBANA--Markets for the end products of agricultural production will dictate the needed adjustments on American farms in the years ahead, declares T. A. Hieronymus, University of Illinois agricultural marketing economist.

He urges farmers not to lose sight of the importance of market size and preferences when recommending farm policies and programs. Efforts to aid and adjust agriculture must be made within the available markets, he emphasizes.

Here is how Hieronymus appraises market prospects for American farm products:

Population is currently rising nearly two percent a year. People born during the period of accelerated birth rates are now reaching ages when they consume food in large amounts.

But population alone does not determine total market size. The well being of agriculture is closely tied to consumer income. As income per person goes up, spending for food also increases. During the past 10 years, food bought per person has increased more than one percent a year, even when adjusted for price level changes, Hieronymus points out. So total market expansion has averaged about three percent a year.

To expand the market for food, the market must supply what consumers want to buy. Price differences must be established so that producers will be encouraged to produce high-quality products in large volume to meet consumer demand.

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Products must be priced attractively to draw consumer spending away from other items to food. The broiler industry has proved that it can expand its market by providing a uniform, high-quality product at an attractive price.

There is still opportunity to expand the market for meat. New records in per capita consumption have been established, and supplies have been readily taken off the market. U. S. meat consumption per person still lags behind that in several other countries.

Broilers and soybeans offer two excellent examples of successful market expansion in products of corn belt agriculture. It seems doubtful that these new markets could have been developed if a policy of effective supply control had been carried out.

One of the key agricultural adjustment problems is to improve pork quality and develop a greater outlet for feed grains.

Industrial uses are a small segment of the total use of farm products. There is little chance of their becoming large. Corn can be used to make industrial alcohol. But even when used in synthetic rubber, corn is worth only about 25 cents a bushel.

Exports offer no magic cure-all. Subsidized export programs in recent years have increased our exports. But the long-term export trend is down as a result of exchange problems and increased food production in foreign countries.

The Public Law 480 export program and proposed Food for Peace plans are really export dumping schemes to sweep our surplus problem under the rug, Hieronymus points out.

Without subsidies, some farm products can still be produced in this country more economically than anywhere else. Exports can be expanded for these products if general trade conditions and import policies will permit. But compared with our domestic market, no large foreign market expansion seems likely, he concludes.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Price Changes Cut Livestock Returns

URBANA--Lower prices received for hogs and eggs and higher prices paid for feeder cattle reduced returns on Illinois livestock farms in 1959.

A. G. Mueller, University of Illinois agricultural economist, reports that on record-keeping farms hogs sold for an average of $19.84 a hundred pounds in 1958 compared with $13.52 in 1959. Egg prices dropped from 36 cents to 30 cents a dozen.

Returns per $100 feed fed to hogs dropped from $180 in 1958 to $114 in 1959. Mueller figures that farmers need a return of about $145 to break even on total production costs.

Poultry returns for each $100 worth of feed fed dipped from $142 to $120. The break-even return is about $175.

Feeder cattle returns dropped from $144 to $120. The agricultural economist says that a farmer needs about $135 to break even.

Dairy and beef cow herds were the only major enterprises that came close to covering all production costs. Returns per $100 worth of feed fed to dairy cattle dropped from $199 to $191. The break-even point is about $200. For beef herds, returns dropped from $162 to $147, with the break-even point at about $145.

Returns per $100 worth of feed fed show the margin available for a farmer to pay for labor, equipment and supplies and to leave a profit, if any. This margin varies with different kinds of livestock and changes in feed costs and prices received for livestock and livestock products sold.

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FOR IMMEDIATE RELEASE

Two Most Dangerous Spring Poisons

URBANA--Cocklebur and Dutchman's breeches are the two poisonous plants most likely to kill Illinois livestock this spring, says Dr. R. P. Link, University of Illinois veterinarian.

Both plants are early starters. When livestock are turned onto pastures before the usual forage has become plentiful, they sometimes eat these green, fast-growing, but deadly plants.

The cocklebur seedling has a straight whitish-green stem one to three inches tall and is topped by two strap-shaped leaves resembling those of cucumber or watermelon plants. It is commonly found along river banks and flats, around the edges of ponds on low land and even in farm yards. The seedlings are poisonous. But as the plant matures, the poisoning danger lessens.

Cocklebur causes the most severe losses in swine, but it can also poison horses, cattle, sheep and chickens.

Livestock rarely touch Dutchman's breeches unless they can't find green forage. However, animals that have been on dry forage for several months are tempted by any fresh, green plant. Dutchman's breeches has white, flattened blossoms suggestive of its name.

Dutchman's breeches is most likely to poison cattle. Although it can kill cattle, from an economic standpoint it is more important as a cause of weight losses.

Dr. Link recommends that farmers inspect their spring pastures before turning animals out to graze. He says almost any weed killer can be used if these two plants are spotted.

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FOR IMMEDIATE RELEASE

U. of I. Receives Funds for Ag, Vet. Medicine Research

URBANA--The U. S. Public Health Service has granted $102,696 for agricultural and veterinary medicine research at the University of Illinois.

R. W. Jugenheimer, Assistant Dean of the College of Agriculture, announces that the money has been earmarked for six separate studies. Here's a brief explanation of each study:

1. Plant pathologist A. L. Hooker received $10,438 to support research leading to the development of disease-resistant field crops.

2. Animal nutritionist H. H. Draper will use $11,500 to study changes in the body cells of rats as they grow older. He hopes to detect which changes are associated with aging. The information he uncovers will probably also apply to aging in other animals, including man.

3. Three food and dairy technologists received $9,834. These men, Z. J. Ordal, S. L. Tuckey and L. D. Witter, are evaluating various cheese-making processes to find ones that occasionally permit the growth of food poisoning strains of staphylococcus.

They hastily point out, however, that growth of these microorganisms seldom ever occurs under practical conditions.

The College of Veterinary Medicine is carrying out the following three studies:

1. Dr. Miodrag Ristic is putting $9,211 to work investigating the causes of anaplasmosis, a disease of cattle. He wants to know whether a virus, bacterium or rickettsia is the trouble-maker.

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2. Dr. Ristic has received another $13,062 to study the "Vibrio fetus" bacterium. This bacterium causes a disease resulting in abortion in cattle, sheep and occasionally women.

3. Dean Carl A. Brandly will use $48,651 to train research workers in veterinary medicine who will specialize in disease study and treatment.

The Public Health Service granted the money in recognition of the intensifying livestock industry and the resulting hazards of diseases common to man and other animals.

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NEWS FROM AGRICULTURE
UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR RELEASE TUESDAY, APRIL 26, 1960

Hog Confinement Not For Everyone, Economist Suggests

URBANA--The need for skilled management ability and high capital investment should cause hog producers to weigh their decisions carefully before switching to a confined rearing system.

A. G. Mueller, University of Illinois agricultural economist, pointed out today that advancements in nutrition, disease control, and engineering have made confinement hog systems possible. But the management problems of adopting new techniques and carrying out the day-to-day operations can make the difference between success and failure.

Here is how Mueller appraises the merits of pasture and confinement systems:

Feed costs are not greatly different for either system. Confinement may make automatic feed handling easier. But the cost advantage from complete mixed rations of corn and fortified soybean meal is available to either confinement or pasture systems.

Shifting hog pasture to corn will increase crop incomes by as much as $40 to $45 an acre. But producers using a pasture system may get more fertility value from the manure saved. Also all hog pastures can't be shifted to corn.

Investment costs of new hog raising facilities may be quite high. Although costs vary widely, estimates show they come to about $25 per pig capacity. Most confinement layouts can handle only about

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two groups of pigs a year. So annual costs of the confined rearing unit come to about 65 cents per 100 pounds of pork marketed. Buildings with heating, air conditioning or automatic feeding equipment will cost more than this.

Labor costs may be less with confinement systems. Much depends on how well the system is planned and method of manure disposal.

Switching to confinement systems has created management problems that many farmers did not expect. Disease control, manure handling, tail biting, scheduling farrowings, and building design have caused troubles. Top managers will solve these problems, others will not.

Interest in hog production in confinement will continue, Mueller believes. But the estimate by some that 75 percent of the hogs will be raised in confinement within 10 years looks high to him. To have such a development would require about half of the farmers now raising hogs to invest from $6,000 to $20,000 in hog buildings. He thinks competition for investment funds may restrict any rapid shift to confinement systems.

Mueller spoke before the annual Illinois Bankers Agricultural Conference sponsored by the Illinois Bankers Association, the University of Illinois College of Agriculture and Division of University Extension.

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UNIVERSITY OF ILLINOIS

AGRICULTURAL CONFERENCES

Urbana, Illinois

COLLEGE OF AGRICULTURE and the
DIVISION OF UNIVERSITY EXTENSION

FOR RELEASE WEDNESDAY, APRIL 27, 1960

Wage Cost Inflation Has Cut Farmer Buying Power

URBANA--Wage-cost inflation in recent years has hit farm families three ways to reduce their incomes and buying power, a University of Illinois agricultural economist stated today.

L. H. Simerl pointed out that it has become our national policy, by design or default, to raise wages of labor faster than the productivity of labor increases. Farm families have been affected three ways:

The rising wage costs have increased marketing costs and reduced the gross cash receipts of farm producers.

Higher wages raise the costs of machinery, supplies, and other farm operation costs. This has reduced the farmer's net cash income.

Prices of things farm families buy have been increased. This means lower purchasing power for each dollar of net farm income.

Simerl reported that domestic demand for food has increased about 2 1/2 to 3 percent a year due to rising population and higher per capita spending. But increased marketing costs, partly caused by excessive wage boosts, have entirely offset the increased per capita demand for food during the 1950's.

Simerl spoke before the Illinois Bankers Agricultural Conference in session Tuesday and Wednesday on the University of Illinois campus. The conference was sponsored jointly by the College of Agriculture, the Division of University Extension and the Illinois Bankers Association.

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FOR IMMEDIATE RELEASE

Undercover Work Done On Nitrogen

URBANA--Commercial nitrogen leads a varied life once it gets into the soil.

For a rough idea, here are results of one study by University of Illinois soil scientists. Two years after application the crops had used about 20 percent of the nitrogen, 40 percent was still in the soil presumably available for plant use, about 10 percent had leached away never to return, and 30 percent had vanished in other ways, mostly through the air by denitrification.

The picture is subject to vary according to conditions, say the agronomists. They point out that the above experiment probably made for higher nitrogen losses than on ordinary field conditions, especially where nitrogen would be applied to the growing crop.

Soils men are the first to admit there isn't enough known about the underground activities of nitrogen. L. T. Kurtz heads up a fact finding project on this at the University of Illinois. He says they're after more understanding on the denitrification process which seemingly accounts for major nitrogen losses. They're also concerned about the fate of nitrogen unused by plants but still in the soil. Some of it combines with organic matter, clay particles claim other portions. The question is, how much nitrogen is available from these sources and at what rates?

Financed by the Allied Chemical Company, the work seeks to aid development of better fertilizers and to point out ways of more effective fertilizer application.

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FOR IMMEDIATE RELEASE

U. of I. Will Test Lawn, Garden Soils

URBANA--Homeowners and amateur gardeners troubled by anemic lawns may discover the core of the problem by having the soil tested.

A soil test reveals available nutrients such as nitrogen, phosphorous and potassium that the soil contains. It also shows if the soil is too acid or alkaline.

The University of Illinois Soil Testing Laboratory will analyze samples of both lawn and garden soils. The cost is $1.00 per sample.

Here's how to take a sample: Measure off a 2 inch by 2 inch area. Remove a 4-inch deep plug of this soil. Slice off the top inch and throw it away. Let the remaining 3 inches air-dry for 2 or 3 days.

Then place the soil in a paper bag, small jar or a box. If paper bags are used, put them into a sturdier envelope or container for mailing.

Enclose your name, address and the dollar. Send to: Soil Testing Laboratory, 100 Floriculture Building, Urbana, Illinois.

It usually takes about one week to analyze the soil. Results of the test and recommendations for soil treatment are returned to the sender.

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FOR IMMEDIATE RELEASE

Mow Lawns Frequently, But Don't Shave Them

URBANA--Thousands of Illinois homeowners are literally shaving lawns to within an inch of their life.

These weekend lawn specialists believe that short haircuts give grass plants renewed vigor. But they actually check growth painfully, observes C. E. Ackerman, University of Illinois horticulturist.

Clipping blue grasses and fescues shorter than two inches throws the "root-top" ration out of kilter. This is especially true if more than 40 percent of the top growth is cut. When lawns are pared this close, roots begin dying to compensate for top parts of the plants that have been clipped.

Then the grass plants begin thinning out. This leaves the door wide open for crabgrass and other weeds.

Leaving a two-inch growth also keeps the soil cool, shades out aspiring weeds. Crabgrass, for example, can't stand shade.

Ackerman advises mowing every 7 to 10 days, or when grass is 3 to 3 1/2 inches tall. Why? If grass gets any taller, the clippings create a heavy mat that smothers the grass plants unless it's removed.

Clippings are actually beneficial if they aren't too thick. They help keep the soil cool, prevent moisture loss and serve as an organic mulch.

Homeowners should make extremely sure that mower blades are extremely sharp. Dull blades seriously injure leaf tips. Ackerman points out that blades on reel-type mowers stay much sharper than

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rotary blades. But, some reel-type mowers can't be raised to cut a two-inch swath. Blades of rotary mowers are usually easily adjusted.

Soaking lawns thoroughly when they're thirsty is another cardinal rule of Ackerman's. By watering, he means soaking the soil to a depth of 6 to 8 inches. He doesn't mean sprinkling lightly every evening for 15 minutes.

Daily sprinkling usually takes more water than soaking the lawn once a month. And light sprinkling does more harm than good. Over a long period of time, sprinkling will not provide sufficient moisture to the root system so it can support normal plant growth.

Ackerman firmly believes that if homeowners mow and water their lawns properly during the growing season, they should have little weed trouble. This includes crabgrass. Applying appropriate fertilizers when needed tends to keep grass vigorous which also helps control weeds.

Make sure that fertilizers contain sufficient nitrogen. Illinois lawns need more nitrogen than any other element, yet many fertilizers do not contain enough. A fertilizer with a 10-10-10 analysis is usually okay for most Illinois lawns.

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FOR RELEASE MAY 1, 1960

Soil Surveys Underway in Three Illinois Counties

URBANA--Illinois Soil Survey teams will begin mapping and identifying soils in three Illinois counties this week.

Soil surveys are carried out cooperatively by the University of Illinois department of agronomy and the Soil Conservation Service. The detailed descriptions and maps prepared by these soil scientists will have many uses for land owners, farm operators, tax assessors, highway engineers, and prospective land buyers.

In Stephenson county, B. W. Ray will supervise a four to six man team that will begin survey work there for the first time. Ray is a member of the University of Illinois soil survey staff. No previous soil report or map has ever been published for this county.

Survey work in La Salle county will be continued where work left off last summer. So far 708 square miles of the 1,152 square miles of the county have been mapped. John Alexander from the U. of I. soil survey staff will be in charge of work here.

In Montgomery county, C. E. Downey, Soil Conservation Service, will supervise the work. P. R. Johnson and L. P. Wilding from the U. of I. department of agronomy will also work with this team. About 280 of the county's 706 square miles have already been mapped.

From May through October, these soil survey teams observe the properties of soils in these counties. They map the different soil types, slope, erosion, and depth of surface soil. They make thousands of borings to depths of 3 1/2 to 5 feet to note the color, texture, and arrangement of the various layers and other features.

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These soil surveyors must develop a high degree of ability to recognize the differences in the more than 300 different Illinois soil types. Each type varies in some way in its topography, parent materials, and layers of clay, sand gravel or mixtures of these materials.

During the winter months, the soil survey staff assembles detailed maps of the soil areas they have worked the previous summer, makes laboratory analyses of different soils, and prepares detailed reports.

Soil Survey work has been carried out in 86 Illinois counties during the last 50 years. R. T. Odell, University of Illinois soil scientist in charge of the soil survey work explains that they have learned much about soil features, how to distinguish between soil types, and recognize the importances of soil differences during this time.

As a result, the surveys now being made and those completed in recent years are more detailed and useful than the earlier surveys. In counties where no up to date detailed maps are available, Soil Conservation Service technicians make soil maps for farms cooperating in the soil conservation district program.

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UNIVERSITY OF ILLINOIS
AGRICULTURAL CONFERENCES
Urbana, Illinois

COLLEGE OF AGRICULTURE and the
DIVISION OF UNIVERSITY EXTENSION

FOR RELEASE TUESDAY, APRIL 26, 1960

Bankers Must Know Farming Too

URBANA--Bankers today must know what it takes to make a profit in farming in order to make sound loans, a bank farm service representative told his fellow bankers today.

Speaking before the Illinois Bankers Agricultural Conference, Nye F. Bouslog, Union National Bank of Macomb, pointed out that farming is becoming more specialized. In the future bankers will deal with fewer and fewer farmers who have larger volumes of business. This means that bankers will spend more time planning and servicing each loan, and fewer customers will borrow more money.

"At our bank, we want to make sure not only that we understand the borrower's plans for repaying the loan, but also that his plans are feasible or practical," he pointed out.

Bouslog believes there is no substitute for a properly designed financial statement that shows the complete picture of the farm business. But he also feels that the banker must know all of the credit needs of the operation. This may require a complete estimate of all income and expenses.

Although this might seem to be getting deeply into the farmer's business, Bouslog emphasized that it is the only way to see where the business is heading and it allows time to change if necessary before the loss occurs.

The bank's real function in the community is to provide sound agricultural credit to those who are making effective and profitable use of it, Bouslog concluded.

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NEWS FROM AGRICULTURE
UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Antibiotics Pull Inside Job

URBANA--In a University of Illinois laboratory, antibiotics are making an inside job out of plant disease control.

U. of I. Plant Pathologist David Gottlieb is working with one that penetrates throughout the plant after being sprayed on the leaves. It's called vancomycin and it's deadly against bacteria that cause such diseases as halo blight of beans and black rot of cabbage.

But more important, its penetration abilities have far reaching implications for antibiotics in future strategy against plant diseases.

Gottlieb reports the information on vancomycin in the current issue ILLINOIS RESEARCH published by the University of Illinois Agricultural Experiment Station.

Gottlieb explains that present day fungicides and bactericides are sprayed or dusted on plant surfaces. They can be washed off by rain. Then too, as the plants keep growing, new leaves and stems emerge unprotected and need to be sprayed again.

Just one treatment of vancomycin, on the other hand, penetrates to the inside of roots, stem and leaves and neither rain nor plant growth can weaken its concentration.

Vancomycin can also move through the soil and into the plant, which suggests antibiotics as a soil treatment against plant diseases.

Seed treatment is another hopeful prospect from Gottlieb's work. Seeds easily absorb the antibiotic and it continues in ample concentrations during the plant's growth, Gottlieb finds.

The performance of vancomycin is encouraging Gottlieb and his staff to continue work with antibiotics as potential agents for plant disease control.

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UNIVERSITY OF ILLINOIS

AGRICULTURAL CONFERENCES

Urbana, Illinois

COLLEGE OF AGRICULTURE and the
DIVISION OF UNIVERSITY EXTENSION

FOR IMMEDIATE RELEASE

Livestock Mechanization Only Beginning;
May Boost Captial Needed

URBANA--Effective mechanized systems for livestock work have been developed. But nine out of 10 livestock farmers still use hand methods supplemented only by tractor-powered transportation, a U. S. Department of Agriculture economist at the University of Illinois declared this week.

Roy N. Van Arsdall reported that the general use of mechanical livestock equipment has just begun. High labor costs, scarcity of dependable workers, good opportunities in nonfarm occupations, and struggle to increase income per worker are all helping boost the demand for materials handling equipment.

Van Arsdall suggested that farmers use a three step calculation to determine whether they could profitably use mechanized livestock equipment. He pointed out that new equipment often generates increased capacity to handle more livestock. So the capital needed for feeder stock, feed, and other expenses to support the larger operation may often go up.

Before investing in livestock equipment, the economist also urged a careful look at the whole farm business. Even though money invested in this way would appear to be a profitable decision, it could deprive some other part of the farm business the necessary capital. If this other enterprise would pay a higher return for the money invested, the livestock mechanization equipment might not be an economical investment, he concluded.

Van Arsdall spoke before the Illinois Bankers Agricultural Conference sponsored by the University of Illinois College of Agriculture, the Division of University Extension, and the Illinois Bankers Association.

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FOR IMMEDIATE RELEASE

Vegetable Insecticide Recommendations Released

URBANA--A new publication just released by the University of Illinois and Illinois Natural History Survey will help vegetable growers wage a stronger battle against pesky insects.

Called the "Vegetable Insecticide Recommendations," it has neatly condensed the following information: (1) major vegetable insects and crops they attack, (2) approximate time of attack, (3) chemicals recommended for control, (4) amount needed per acre, (5) where to place chemicals, and (6) timing applications for best results.

Easy directions for mixing small quantities of spray for the home garden are given too.

The publication also has another outstanding feature. It lists restrictions on use of insecticides recommended for various crops. Growers should find this information a valuable aid, point out entomologists W. H. Luckmann and H. B. Petty, authors of the booklet.

They strongly urge growers to pay stricter attention to the restrictions and to recommendations for using various chemicals. The few problems that agricultural chemicals have created are a result of misuse.

Some wholesale and retail grocers may ask vegetable growers for a complete run-down of chemicals applied to crops this year. For this reason Luckmann and Petty urge growers to keep accurate records of all insecticides used, the rate of application per acre, and date of application.

Growers and home gardeners can pick up copies of the publication from their farm adviser who is a county representative of the University of Illinois. Or, they may write directly to the Illinois Natural History Survey, Urbana, Illinois.

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Insecticide Recommendations Released

DECATUR--A new publication just released by the University of Illinois and Illinois Natural History Survey will help vegetable growers in a strategy against yearly insects.

Called the "Vegetable Insecticide Recommendations," it has been widely circulated the following information: (1) major vegetable insects across they attack, (2) representative time of attack, (3) chemicals recommended for control, (4) amount needed per acre, (5) where to place insecticide, and (6) testing applications for best results.

Easy directions for making small quantities of spray for the garden are given too.

The publication also has another outstanding feature. It gives restrictions on use of insecticides recommended for medium crops. Users should find this information a valuable aid, says our entomologists R. H. Hodgson and R. E. Kelly, authors of the booklet.

They strongly urge growers to pay strictest attention to the directions and to recommendations for safe yielding chemicals. The problems that agricultural chemicals have created are a result of use.

Some vegetable and fruit growers may not regularly identify a complete run-down of chemicals applied or crops this year. For a copy of Lindgren and Kelly (sp) growers to their extensive records of insecticides used, the rate of application and date, and date of harvest.

Growers and home gardeners can pick up copies of the publication from their county agent or in a county extension office of one Illinois of Illinois. Or, they may write directly to the Illinois Natural History Survey, Urbana, Illinois.

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FOR IMMEDIATE RELEASE

Bacterial Infections Spring Poultry Hazard

URBANA--Salmonella infections causing fowl typhoid, paratyphoid and pullorum disease are serious poultry hazards every spring, says Dr. L. E. Hanson, University of Illinois veterinarian.

At this time of year, large numbers of chicks are hatched. These young birds are more susceptible to these bacterial infections than are mature birds. Chicks may get these infections directly from an infected hen through the egg yolk. They may also get the infection from contaminated material in the chicken house or on the ground.

Dr. Hanson says there are two basic ways to prevent salmonella infections. First, farmers should get their eggs from flocks with a pullorum-free test. This test is also a safeguard against typhoid. Paratyphoid is more likely to infect turkey poults than chicks. There is no organized paratyphoid testing program in Illinois.

Second, farmers should brood chicks where they will not come into contact with adult birds or with contaminated material and equipment.

There are no effective vaccines against pullorum disease, says Dr. Hanson. Some medicinal agents now available reduce death loss following an outbreak. Although some birds survive, they often remain carriers of the infectious organism.

These bacteria usually localize in the bird's gall bladder and ovaries. These are the two best locations for transmitting the organisms. From the gall bladder, the organisms are carried to the

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intestinal tract, and then pass out with the feces. Organisms in the ovaries get into the yolks of eggs laid by apparently normal breeding hens. The chick embryo may die from the infection or may live to hatch and spread the infection.

Should these infections get into a mature flock, Dr. Hanson advises the poultry farmer to test the flock. If there are only a few reactors, these infected birds can be removed and slaughtered. If the flock is heavily infected, all birds should be sold for immediate slaughter. Replacement stock should be brought in only after buildings and premises have been thoroughly cleaned and disinfected.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Open-Country Residents Bring Problems for Farmers and Community

URBANA--Open-country residents, one of the fastest growing segments of our population, bring problems to farmers and the community, a University of Illinois rural sociologist reports.

C. L. Folse points out that the open-country residents are usually younger, have larger families with younger children and represent professional, skilled and semiskilled workers. They often have different goals and values that may conflict with those of farmers.

The basic problem arises from the difference in needs and views of the open-country resident and his longer established farmer neighbors. The additional demands for schools, roads, recreation and other public services require additional tax revenues. Farmers are asked to bear additional taxes to support and expand the existing community facilities or develop new ones.

Farmers today are now in the minority in the rural areas of Illinois. For some time the number of rural residents has been increasing in the fringe areas around our larger cities. But now many people live in the open-country far removed from large cities but still commute to work at nonfarm jobs.

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FOR IMMEDIATE RELEASE

On-the-Farm Feed Processing: New Trend in Farming

URBANA--Rising sales of feed-handling equipment reveal a growing interest in on-the-farm feed processing, a University of Illinois agricultural economist reports.

R. J. Mutti says that farmers' increasing interest in feed processing on farms may be traced to several developments:

Larger livestock enterprises are making an investment in feed-processing equipment particularly feasible on farms with abundant grain supplies and unused labor and storage facilities.

The desire to control supplement intake and to raise more uniform animals has encouraged more use of complete rations. Promotion of the grain bank plan for storing grain and preparing feed has also supported the feeding of complete rations.

Rising cash costs have stimulated some farmers to cut expenses and use more of their own labor. Labor-saving equipment on farms has released more of the operator's time for other activities. One of these has been feed preparation.

Farmers have several choices in setting up a feed-processing system on the farm:

They may grind their own grain and mix a complete commercial supplement with it. With this system annual fixed costs need not exceed $360. With variable costs of 35 cents a ton, Mutti estimates that processing costs would total about $3.95 a ton for processing 100 tons a year and drop to about $1.25 a ton for 400 tons.

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Other farmers are buying a protein ingredient, such as soybean meal, and mixing it with a fortified vitamin-mineral premix.

Still others may buy their minerals, a bulky and relatively low-priced ingredient, separately from the protein supplement and the vitamin premix. A few farmers are also buying vitamins and mixing all the different ingredients on the farm. These latter two operations take additional mixing equipment and a greater knowledge of nutrition than the other methods.

Not all livestock producers, however, will find farm feed processing feasible, Mutti points out. Some livestock producers may not want to change to complete rations. Their present system may be using land, labor and buildings efficiently.

Some farmers will not have a large enough enterprise to make the necessary investment in equipment or to use truckloads of feed in a reasonable time.

Some will not have the needed storage facilities. Nearby elevators will provide storage space at more reasonable cost than building new storage on the farm.

Some farmers will not have the capital or will not want to make the needed investment. This will be particularly true of tenant farmers or those who do not want to expand because of health, age or off-farm employment.

Feeders may want advisory service or credit that would not be readily available if they operated their own farm feed mill.

Or a farmer may be able to buy a feed already prepared at a price that would not make farm processing worth while. A farmer may

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find that hiring custom services gives him the chance to expand his farm business without hired labor.

Mutti reports that feed dealers are modifying their businesses to keep pace with new trends and demands by farmer customers. Some firms continue to serve customers who need storage, delivery, grinding, mixing, credit and management services. A few are acting as agents for farmers in purchasing ingredients in large-volume lots.

An increasing number of feed dealers have gone into livestock production directly. Since these operations can now be carried out in confinement without large investments in land, anyone with labor, capital and management "know-how" can integrate his operations.

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FOR IMMEDIATE RELEASE

Continuous Corn Not Always Profitable

URBANA--The increasing popularity of continuous corn has caused many farmers to rush blindly into this program. Before taking this step, they should take a look at the lesson taught by the Morrow Plots, suggests L. B. Miller, agronomist at the University of Illinois.

The Morrow Plots, located on the University of Illinois campus, are the oldest soil experiment field in America. One section has grown corn continuously for 84 years. Part of the continuous corn area has received no soil treatment during the entire period. This area yielded 26 bushels in 1959.

A new management program including liming, thicker plant population and heavy fertilization was put into effect on part of the untreated area in 1955. The yield immediately shot up to 86 bushels, an increase of 50 bushels over that on the untreated area. Three years with yields over 100 bushels followed. All four of these years were favorable for corn.

The dry season of 1959 taught an important lesson. The yield on the newly treated area was cut greatly to 56 bushels. All of the plots showed lower yields, but none were so serious as on this area.

Much of the decrease in yield can be explained by the organic matter content of the soil, states Miller. Organic matter improves the physical condition, or tilth, of the soil. Better tilth allows more rainfall and air to enter into the soil. Organic matter is also a storehouse for nitrogen and phosphorus.

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The untreated continuous corn plot is very low in organic matter. Although nutrients were supplied after 1954, the tilth is still very poor. This soil was not able to store and furnish enough water for the corn during the dry year of 1959. A great reduction in yield resulted.

Another section of the continuous corn plot has received manure, lime and phosphate since 1904. This area yielded 83 bushels of corn in 1959. This difference illustrates the importance of management in the continuous corn program.

Continuous corn has other drawbacks for Illinois farmers, according to Miller. Maintaining soil fertility will cost much more in this intensive rotation. Continuous corn will remove a greater amount of nutrients than will a rotation containing legumes. Legumes add nitrogen from the air, while commercial nitrogen must be added to continuous corn.

A great amount of risk is involved in the all-corn operation. If corn borers, dry weather, hail or low corn prices present themselves, the continuous corn farmer could get hit hard financially. If the operator has other crops besides corn, probably at least one of his crops will come through and make a profit for him.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

City Growth Won't Reduce Farm Output;
Land Use Planning Needed

URBANA--City growth, new highways and industrial development are taking about one million acres of land a year from agricultural use. But even at this rate it will take several decades before agricultural output is affected significantly, a University of Illinois agricultural economist reported this week.

Harold G. Halcrow stated that the time may come when the United States will have a shortage of good productive farm land. But, more likely, he expects that scientific advancements will enable farmers to keep production in pace with the growing population.

There is an urgent need, however, for better planning of land use, Halcrow emphasized. The migration of nonfarm families into the open country is largely unplanned. The result is many problems for both new and longer established residents. The need for schools, highways and other facilities present tax and revenue problems for the developing community.

Halcrow also pointed out that not enough planning is being done for using land for recreational purposes. People in growing cities place a high priority on recreation. Use of some land adjacent to population centers for this purpose should receive high priority in our planning, he concluded.

Halcrow spoke before the Illinois State-Wide Planning Conference meeting on the University of Illinois campus this week.

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FOR IMMEDIATE RELEASE

Stilbestrol Acquitted In Vitamin A Trial

URBANA--University of Illinois animal scientists acquitted stilbestrol in a recent vitamin A feeding trial.

This popular feed additive has been suspected of causing vitamin A deficiency symptoms in fattening steers. The trial results, however, clear stilbestrol of suspicion.

This study was part of Illinois' continuing search to discover what causes vitamin A deficiency symptoms when cattle get feeds supplying an adequate amount of the vitamin.

In this particular study, research worker George E. Mitchell implanted four groups of steers with different levels of stilbestrol. He made two separate implants, five months apart.

A fifth group, the "control" lot, did not receive any stilbestrol. This group served as a basis for comparison. All groups got the same rations.

Mitchell reports that most of the steers in every group displayed vitamin A deficiency symptoms. A check of their blood plasma confirmed a shortage of vitamin A in the blood stream.

These deficiency symptoms occurred in every group, including the control group that did not receive stilbestrol. This evidence, therefore, should clear stilbestrol of suspicion. Furthermore, stilbestrol had no effect on the steers' response to alfalfa meal and vitamin A therapy treatment.

Mitchell and his co-workers are continuing their studies to find the actual cause of the deficiency symptoms.

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y los actos como de los objetivos.

Mientras más los comportamientos son controlados antes dirigidos a
a propia conducta.

Esto hace un mejor uso del lenguaje, conforme la sociedad vaya evo-
cerlos' ayudará cada ciudadano de manera' independiente' tomo-
conciencia donde que ella sea necesario mejorarla' para satisfacer'

Hasta ahora se ha escrito de cómo dicho' funcionamiento
tramos a modificar el ambiente a fin de ayudar mejor.

eg Atributo y definición conductual' Y cómo es difícil hacer

Mientras cabezas tiene mucho de los efectos en cada dicho' pre-
mente ambiente.

Esto' Esta dicho' debido a a causa de deshabituación' así dicho' los
y dicho' dicho' que conducta, por ello no se necesita más dis-
tanto que además' dicho' dicho' dicho.

Propiedad como dicho a cómo mis diferentes tipos de atributos'

Si dice distintos dicho' respecto mayor cosa de' ambiente
con mayores cambios de los atributos'

Cuando atributo y definición conductual dicho que cuando dicho' dicho
Hasta ahora más dicho de atributo, constituye mucho de dicho
' tener atributos de modificación'

y determinar situaciones en particular mejor' que cada' dicho' dis-
tanto también que mejorar que para enseñanza de cuando dicho
requiere de a medida atributo y conducta dicho'

Dicho--dificultad de atributo cuando actividades modificar

Operación conductual de atributo y dicho

FOR IMMEDIATE RELEASE

Crushing Machines Cut Hay Curing
Time in Half in U. of I. Tests

URBANA--Hay crushing machines slashed field curing time in half in three tests by University of Illinois agricultural engineers last spring and summer.

Hay in the first test averaged about 75 percent moisture when it was cut at 9 a.m. By 2 p.m. the next day, untreated hay was still wet, testing 29.7 percent moisture. Hay crushed with smooth roll, corrugated roll and combination smooth and corrugated roll crushing machines contained only about 16 percent moisture.

In the next two tests, crushed hay was ready for baling the same day it was cut. At 9 a.m. hay in the field averaged around 68 percent moisture. At 5 p.m. uncrushed hay tested over 25 percent. Crushed hay tested less than 20 percent and was ready to bale.

In all three tests, crushed hay was ready for baling at least a day earlier than uncrushed hay.

K. A. Kendall, U. of I. dairy scientist, explains that fast curing isn't the only advantage of crushing hay. It can save up to 10 percent more hay by preventing loss of leaves and small stems caused by extra drying and handling after rains.

Crushing also saves carotene for vitamin A, since hay is exposed to sun and rain for a shorter time. In addition, rapid curing saves protein that otherwise could be lost in shattered leaves.

Hay crushers crack stems lengthwise and reduce them to the equivalent of several smaller ones. The process opens up the moist inner parts of the stems, bringing them into more direct contact with the air. As a result, the stems dry almost as fast as the leaves.

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NEWS FROM AGRICULTURE
UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

UI Dairy Researchers Add Hay to Corn Silage Ration: Boost Production

URBANA--University of Illinois research indicates that dairy cows on corn or sorghum silage should also receive at least one pound of hay per 100 pounds of body weight.

By adding alfalfa hay at this rate to a ration that had previously consisted entirely of corn silage and ground shelled corn, U. of I. researchers boosted production of 10,000- to 12,000-pound producers by as much as 1,600 pounds of milk per lactation.

Dairy scientist J. H. Byers says cows on the corn silage—ground shelled corn ration had digestive trouble when fed only 1/2 pound of hay per 100 pounds of body weight.

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5/9/60

For Immediate Release

Dairy Researchers Say Hay Is Good Dairy Feedstuff, Though Inefficient

URBANA--University of Illinois research indicates that dairy cows on corn or sorghum silage should eat roughly at least one pound of hay per 100 pounds of body weight.

By adding alfalfa hay at this rate to a ration that primarily consisted entirely of corn silage and ground shelled corn, U. of I. researchers boosted production of 10,000- to 11,000-pound producers by as much as 1,000 pounds of milk per lactation.

Daily rations in U. Illinois trials were as the corn silage--ground shelled corn ration had cumulative intake when fed only 1/2 pound of hay per 100 pounds of body weight.

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FOR IMMEDIATE RELEASE

Manganese Deficiencies Increasing in Illinois Soils

URBANA--Manganese deficiency symptoms in soybeans and oats are becoming more common in central Illinois, according to S. W. Melsted of the University of Illinois agronomy department.

The plant needs manganese in order to develop chlorophyll, which gives the green color. If there isn't enough manganese, plants cannot make this chlorophyll and yellow areas develop between the leaf veins.

Melsted points out that yellowing appears first in young leaves. If the manganese supply is at the borderline of what plants need, the symptoms may appear only in cool weather, since the plants are more sensitive to manganese levels under such conditions.

Poorly aerated, wet, neutral to alkaline soils are apt to be low in manganese, Melsted continues. Leaf analysis and plant symptoms are the only practical ways to tell whether a soil is deficient, since there is no soil test.

The most successful way to correct a deficiency in Illinois is spraying the plants with manganese sulphate, says Melsted. A suitable rate is 10 pounds in 25 gallons of water per acre. The total cost is around $3.

Last year deficiency areas were observed in west-central Illinois in Mason, Logan, Hancock and Adams counties; in eastern and central Illinois in Iroquois, Kankakee, Will, Ford, Livingston and Woodford counties; and in northern Illinois in Whiteside, Lee, Boone and McHenry counties.

Melsted urges farmers to watch soybeans during early growth periods for signs of manganese deficiency.

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Manganese Deficiency Discovered in Illinois Soils

(UPDATE--Manganese deficiency symptoms in soybeans and oats are coming more common in central Illinois, according to A. W. Markland of the University of Illinois plant pathology department.

The plant needs manganese in order to combine chlorophyll, which gives the green color. If there isn't enough manganese, plants cannot make this chlorophyll and yellow areas develop between the leaf veins.

Related problems not that yellowing appears first in young leaves. If the manganese supply is at the borderline of what plants need, the symptoms may appear only in cool weather. Since cool plants are sensitive to manganese levels under such conditions.

Poorly drained, wet, peaty soils are prone to be low in manganese, related conditions. Deep muck and light sandy soils are the only practical ways to tell whether a soil is deficient, since there is no soil test.

The most successful way to correct a deficiency in Illinois appears the plants with manganese sulphate, says Markland. A half-pound is to provide in 25 gallons of water per acre. The total cost around $6.

Less good deficiency areas were observed in north-central Illinois in Macon, Logan, Menard and Adams counties; in western and central Illinois in Knox, Hancock, Warren, Fulton, Livingston and Woodford counties; and in northern Illinois in Whiteside, Lee, Boone and McHenry counties.

Related area farmers to watch soybeans during early growth stages for signs of manganese deficiency.

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FOR IMMEDIATE RELEASE

Bathe The Dog When Needed This Spring

URBANA--Don't rush out and dunk your dog in a tub of sudsy water during spring cleaning, says University of Illinois veterinarian Dr. Erwin Small.

Make sure he needs a bath before washing him. And when it is time to bathe him, use a mild soap or medicated shampoo. Before using a shampoo, however, dab his eyes with salve to prevent painful stinging. Also, put cotton in his ears to prevent ear infections sometimes caused by water and shampoo getting into the ear canals.

One of the main reasons for thoroughly cleaning a dog is to rid him of any hitch hikers picked up over the winter. If you use a mild soap, spray or dust the animal for fleas and ticks shortly after bathing. Then wrap him in a towel for about ten minutes to prevent fleas and ticks from escaping while the spray or dust does its work.

A clean dog, free from fleas and ticks is not only more comfortable, but stays healthier, says Dr. Small. He is less likely to have a skin condition caused by continual scratching. He is also less likely to get tapeworms.

Fleas spread these worms by eating them, and the worm eggs become larvae in their bodies. A dog swallowing a flea can wind up with anything from a mild to a severe tapeworm infection.

No clean-up is complete without getting rid of fleas in the dog's bed. Either wash the bedding or burn it. This together with frequent dustings will keep the dog comfortable.

One more point, says Dr. Small: Inspect both the house and the yard for areas where the dog may contact a source of fleas. Once a source is located and cleaned out, keeping the dog free from fleas will be easy.

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[illegible]e the Dog When Needed Flea Dusting

[illegible]—Don't wash out and dash your dog in a tub of sudsy [illegible]r during spring cleaning, says University of Illinois veterinarian [illegible]lavin Small.

Make sure he needs a bath before washing him. And when it is [illegible] to bathe him, use a mild soap or medicated shampoo. Before using [illegible]mpoo, however, see his eyes with saliva to prevent painful scalding, [illegible], put cotton in his ears to prevent ear infections sometimes caused [illegible]ater and shampoo getting into the ear canals.

One of the main reasons for "thorough" cleaning a dog is to [illegible]ion of any hidden fleas picked up over the winter. If you use a [illegible] soap, spray or dust the animal for fleas and ticks directly after [illegible]ing. Then wrap him in a towel for about ten minutes to prevent [illegible]s and ticks from escaping while the spray or dust does its work.

A clean dog, free from fleas and ticks is not only more com-[illegible]able, but healthier, says Dr. Small. He is less likely to [illegible] a skin condition caused by nonhumoral scratching. He is also less [illegible]ly to get tapeworms.

Fleas spread three ways by eating eggs, but the most eggs be-[illegible] laying in hairs behind. A dog swallowing a flea can send an egg [illegible]ding down a mile to a severe tapeworm infection.

To clean-up is complete without sprinkling and of flea in the [illegible] bed. Either wash the bedding or burn it. This tapeworm egg [illegible]ment destroys will keep the dog comfortable.

One more point, says Dr. Small: Remove dog's flea bites and [illegible]pad for mange where the dog may contract a source of fleas. Once a [illegible] is located and cleaned out, treating the dog also from flea bites will [illegible].

NEWS FROM AGRICULTURE
UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Early Lamb Weaning Suggested to Prevent Parasites

Good pastures alone won't guarantee good lamb gains. Research workers at the University of Illinois Dixon Springs Experiment Station report that gains can be disappointing if internal parasites become a problem.

Dr. M. E. Mansfield, station veterinarian, has detected a big jump in internal parasite egg counts about mid-May. Lamb gains often drop even though pastures seem to be just as good as they were earlier.

Drenching and treating for parasites may prevent losses from parasites. If this treatment doesn't work, the research workers suggest weaning lambs early. Weaning gets them away from the ewes, the source of infection.

Lambs can be moved into drylot or put on clean clover pasture with feed. Either system will work, but it is important to wean before the lambs become infected.

At Dixon Springs, early weaning has been practiced for three years with excellent results. This year the lambs are being weaned at 40 to 60 days of age. These early-weaned lambs seem to be doing as well as older lambs.

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FOR RELEASE WEEK OF MAY 16, 1960

Planning and Action Boost Farm Income

A young southeastern Illinois farmer earned $4,300 for his labor and management in 1959--more than double what he made in 1957.

A planned program to improve his income is moving him rapidly toward his goal for good living. He plans to build a new farm home in the near future.

This farmer's "operation bootstrap" began in 1956 when he bought 200 acres of land, about half tillable. He is now farming it along with 120 acres of rented land.

In 1957 he joined the Illinois Farm Bureau Farm Management Service. His first year's records showed that his low income was due to low crop yields, low livestock volume and no organized plan for farm production.

With his limited capital he decided that fertilizers would give the quickest return at least cost. He also decided to expand his dairy herd. His records showed that dairying had been most profitable for him.

In 1958 he built a silo and an addition to the barn. In 1959 he added a four-stall milking parlor, pipeline milker and bulk tank. To keep up his cash income, he has kept 95 percent of his tillable land in corn, soybeans and wheat since 1957.

The records show that corn yields jumped from 35 to 85 bushels between 1957 and 1959. Soybean yields climbed from 14 to 31 bushels. Wheat yields averaged 13 bushels an acre in 1957 and 47 in 1959. The dairy herd has grown from 7 to 17 cows.

D. F. Wilken, University of Illinois farm management specialist, and Floyd Fuller, local farm management fieldman, believe every farmer can take this lesson from this man's experience: A farmer who makes an organized effort to find and solve his income problem can succeed. Good records help to plot the course.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR RELEASE TUESDAY, MAY 17,1960

Illinois Extension Workers Honored for Superior Service

WASHINGTON, D. C.--Two University of Illinois Extension Service staff members were among those honored today by the U. S. Department of Agriculture. J. G. Cash, extension dairy specialist, Urbana, and Mrs. Hazel W. Adams, McDonough county home adviser, Macomb, received Superior Service Awards.

The awards were presented at a special ceremony for 102 honored staff members at the Department of Agriculture.

Cash has served as a dairy extension specialist at the University since 1933. He has made outstanding contributions to dairy extension work in Illinois. His idea of the Weigh-A-Day-A-Month record-keeping plan was started in Clinton county and has spread to 41 other counties. This plan has been used as a pattern for the national program used in many other states. He has also rendered outstanding service through feeding schools, exhibit days, advising artificial breeding organizations, program planning, dairy herd improvement associations, sire-proving programs, mastitis control and as a recognized dairy cattle judge.

Mrs. Adams has served as McDonough county home adviser for 16 years. She has shown unusual ability in helping rural and urban families develop leadership ability, improve their living conditions and plan for a happier, more secure future. Her educational programs in health, legal matters, home management and consumer buying have made an outstanding contribution to the welfare of McDonough county people. She has also been active in community, county and state activities related to her work. She received the distingished service award of the National Home Demonstration Agents Association in 1954.

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FOR IMMEDIATE RELEASE

Measure Your Timber From The Air

URBANA--Foresters are taking to the air these days to improve timber inventories on the ground.

Charles E. Olson Jr., forestry instructor and executive secretary of the Aerial Photography Program at the University of Illinois, says that use of aerial photographs of a timber stand will entirely eliminate some of the ground and make the rest much easier.

Such things as tree heights, crown diameters and in some cases tree species can be found in the laboratory without ever stepping into the timber.

The techniques are similar to ones the armed services used during World War II. A picture of the stand is taken at heights of 2,000 to 20,000 feet.

The pictures are then developed and sent to photo interpreters. Using intricate measuring devices, the interpreters are able to give accurate answers to questions about a timber stand they have never seen.

As an example of the time saved by using aerial photography, Olson says that a stand which takes 3 1/2 days of field work to measure in the old way can now be done with one day of office work and one day in the field.

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FOR IMMEDIATE RELEASE

Pigs Gain O.K. On Corn, Soybean Meal Ration

URBANA--Hogs at the University of Illinois swine testing farm have grunted their approval of a simple corn and fortified soybean meal diet. Research tests support their approval.

It seems that animal scientists were anxious to see if adding additional sources of protein to the corn and soybean meal ration would increase gains.

So workers added one of the following to the basic 16 percent ration: (1) fish meal, (2) meat and bone scraps, (3) dried corn distillers solubles, (4) dried skim milk, (5) dehydrated alfalfa meal, (6) a streptomycin fermentation residue, (7) dried whey or (8) condensed fish solubles.

The animal scientists report that none of these products consistently improved the performance obtained with the corn and fortified soybean meal diet. Pigs receiving this ration turned in average daily gains of 1.64 pounds.

Average daily gains of pigs receiving one of the above additions were 1.60 pounds.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Farm Youth Lag in College Plans

URBANA--Farm youth fall behind their city cousins in plans to attend college, according to a recent report from the Bureau of the Census and the Agricultural Marketing Service.

Among the farm youth graduating from high school this year, fewer than one-third plan to attend college. About 41 percent do not plan to attend and 27 percent are undecided. In contrast, slightly more than 50 percent of urban and 47 percent of rural nonfarm youth plan to attend college.

In the light of these figures, University of Illinois rural sociologist C. L. Folse calls upon school officials and parents to encourage more farm young people to acquire college educations. In our highly complex, automated society, educational attainment is becoming more essential for success, he points out.

The need for continued efficiency in farming and demands from related agricultural industries will require the best leadership that can be produced, Folse states. Yet this same report shows that only 10.2 percent of farm youth now enrolled in college are studying agriculture. The report shows that 15.8 percent are in business, 23.3 percent in education, 10.7 percent in engineering and 14.4 percent in biological sciences.

Numerous reports show that the demand for agricultural college graduates far exceeds the supply, Folse points out. Just as in any other business, the complex nature of farming requires high management ability. Numerous industries serving farmers are also increasing rapidly and offer good opportunities for college-trained farm youth.

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[illegible] Youth Lag in College Plans

CHARM--Two youth full behind their city schools in plans to [illegible] colleges, according to a recent report from the Bureau of the Census and the vocational guidance bureau.

Many the born youth graduating from high school only [illegible] more than one-third plan to attend college. About 14 percent do not [illegible] to attend and 37 percent are undecided. In contrast, slightly [illegible] than 50 percent of urban and 47 percent of rural nonfarm youth [illegible] to attend college.

In the light of these figures, university of Illinois rural sociologist O. C. Tolle calls upon school officials and parents to emphasize more that young people is secure college education. In our fast complex, automated society, educational achievement is becoming [illegible] essential for success, Mr Tolle points out.

The need for continued efficiency in farming and housing [illegible] mechanized agriculture will require the best leadership that [illegible] be produced, Tolle stress. Yet this case [illegible] that only [illegible] 7 percent of farm youth now enrolled in college are studying [illegible]. The report shows that 15.0 percent are in business, 10.5 percent [illegible] education, 10.7 percent in engineering and 14.4 percent in biological [illegible].

Everyone reports also that the demand for agricultural college [illegible] far exceeds the supply. Tolle points out. Due to the [illegible] business, the complex nature of farming requires high accomplishment. Numerous industries carrying [illegible] are also increasing [illegible] and other good opportunities for college-trained farm youth.

FOR IMMEDIATE RELEASE

Studying Effect of High-Oil Corn on Lamb Carcasses

URBANA--Lamb producers wanting to take advantage of the new high-oil corn may soon find out whether it has any effect on lamb carcasses.

Tests are currently under way at the University of Illinois to determine whether there are any such effects, reports U. S. Garrigus, head of the Department of Animal Science sheep division.

Garrigus explains that earlier tests showed that high-oil corn could increase the rate and efficiency of lamb gains up to 10 percent. "We have never been sure, however, whether high-oil corn affects the carcass," Garrigus observes.

This spring he and his colleagues are feeding several groups of similar lambs. All lambs are getting creep rations that vary only in the type of corn. Half of the lambs are eating high-oil corn; the remainder are getting standard hybrid corn.

Later this summer meats research workers will evaluate the carcasses of lambs that received high-oil corn and regular corn. They'll try to measure any differences, good or bad, that can be traced to either corn.

Garrigus admits that high-oil corn could logically produce soft fat. Several years ago he compared carcasses from lambs fed high-oil corn with carcasses of lambs fed standard hybrid corn. The carcasses did not reveal any significant differences in unsaturated or soft fat.

These trials, however, were limited. That's why more extensive studies are under way this year.

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FOR IMMEDIATE RELEASE

4-H Clubs Active in Chicago

CHICAGO--4-H Club work, long an important youth activity in rural Illinois, has now invaded Chicago. And all reports indicate that the big city is greeting the newcomer with high approval.

More than 1,400 youth have worked in the Chicago 4-H program since it started three years ago. At present the program enrolls nearly 1,000 boys and girls, Chicago 4-H leader Lawrence Biever explains in a recent progress report.

To meet this strong demand, 30 new clubs were formed for 1960, bringing the city's total to 66 active clubs.

Foods and clothing are the high-interest projects among Chicago girls. Although most interest lies in areas related to home-making and home economics, other projects also meet with high approval. These include photography, candle-making, baby-sitting, leathercraft, junior leadership, metal enameling and wood-working.

Electronics is the most popular project among the boys. Other ranking boys' projects include art, outdoor gardening, metalcraft, plastics, science and electricity.

Biever says teen-agers play an active role in the Chicago program. More than 52 percent of Chicago's 4-H'ers are 13 years and older. This is 10 percent above the national average and 5 percent higher than the average for Illinois.

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FOR IMMEDIATE RELEASE

Central Illinois Dairymen Vote on Federal Order May 20

URBANA--Producers supplying milk to dairy plants that serve 28 central Illinois counties will vote Friday, May 20, on a proposed federal milk marketing order.

The proposed order would set minimum prices paid to producers. But it would not regulate retail and wholesale milk prices or prevent dealers from paying more than minimum prices.

Four other federal orders are now in operation where Illinois milk is marketed. These are in St. Louis, Chicago, the Quad-Cities and Rockford-Freeport. On June 1 another order goes into effect in Suburban St. Louis.

About three-fourths of the Grade A milk produced in the state is now under federal regulation, estimates R. W. Bartlett, University of Illinois dairy marketing economist.

Here is how Bartlett appraises the operation of federal orders:

1. They have insured honest practices. Producers and distributors respect the honest operation of federal orders.

2. Surplus milk, selling at lower prices, has been equitably distributed to all Grade A producers. The New York market was similar to that in central Illinois before the federal order went into effect in 1938. There two pricing systems resulted in a difference of about 23 cents a hundred between the two systems. After the federal order, each producer in the same transportation zone received the same price and shared equally in the market surplus.

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3. Federal orders make it difficult, if not impossible, to substitute lower grade milk for Grade A. Most milk dealers are honest. But in unregulated markets some have been found to sell more Grade A milk than they bought.

4. The federal order saves transportation costs and returns the savings to milk producers in the area. Without regulation, a considerable volume of milk now flows 200 miles from Wisconsin to central Illinois markets. These shipments are largely unnecessary, because milk is available within 50 to 60 miles.

5. Federal orders eliminate dishonest butterfat tests. Before federal regulation, producers' associations established honest tests for their members. But non-members did not have such service. The order provides this service.

6. The federal order has eliminated dishonest weights. If more milk is sold than purchased, careful auditing makes this situation known and it is corrected.

How do federal orders affect prices received by producers? Bartlett believes that in general markets under federal order have tended to increase returns to producers over what they would have received without a federal order.

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NEWS FROM AGRICULTURE
UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Scientists Remodel Plants and Animals

URBANA--Plants and animals haven't been the same since plant and animal breeders went to work on them.

They've stretched pigs, widened cattle, dwarfed corn and made oranges juicier than ever.

What they do is manipulate the evolutionary process, or rather they "control" it, to develop the plants and animals needed to feed and clothe a nation.

An up-and-coming helper in this business is atomic energy. By radiation, atomic energy mutates genes and chromosomes which are the carriers of heredity. This forces physical changes that rarely occur naturally.

Ordinary, "non-atomic" breeding amounts to combining differences that occur naturally, so explains R. L. Bernard, plant breeder with the USDA soybean laboratory at the University of Illinois. There are countless naturally occurring variations in plants--disease resistance, yield, straw strength and so on. Bernard says that plant breeders of most crops will be occupied for a good many years to come in sorting through all this natural variability and testing the vast number of gene combinations.

However, plant breeders may be reaching a plateau in their efforts to increase performance of some crops. They may be close to

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finding the most desirable combinations of naturally occurring variations, Bernard explains.

While variations occur naturally, the rate is too low to be of much use to plant breeders. There may be a handful of beneficial mutations every thousand generations or so.

Here's where mutations a la atomic energy come in. By manufacturing mutations, plant breeders can get around the evolutionary barrier. They call the work "irradiation breeding."

This work is still a long way from replacing conventional methods. Many thousands of detrimental genes are produced along with each helpful one. Isolating the desirable gene is very difficult.

But Bernard considers the irradiation technique a valuable tool in present-day basic research, and he thinks that, as conventional methods are gradually exhausted, it may hold the hope for future advances in breeding work.

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FOR IMMEDIATE RELEASE

U. of I. Searching for Protein Supplement Substitute

URBANA--Some day hog producers may find themselves feeding well-balanced rations that do not contain regular-type protein supplements.

Sound far-fetched? That day may be here sooner than you think if a current University of Illinois research study pans out. Animal scientists A. H. Jensen and D. E. Becker are searching for a cheap but satisfactory substitute for protein supplements in hog rations.

Here's how they are doing it:

This spring they are feeding out several groups of pigs from the time the pigs are weaned until they weigh 100 pounds. All get either a corn—soybean meal ration or a milo—soybean meal ration. But some groups are eating a ration that provides 16 percent protein. Others are getting rations that provide only 12 percent protein.

As hog producers know, pigs of this age range need 16 percent protein. So what's the catch? Jensen and Becker are adding pure amino acids to the 12 percent protein rations.

Amino acids are the "building blocks" of protein. They balance out the 12 percent rations so that the pigs actually get amino acids equivalent to the 16 percent protein ration.

The animal scientists explain that pigs do not actually need protein. Rather, they need the amino acids that make up protein. So it seems logical that amino acids could substitute for all or part of the protein supplement.

Jensen and Becker admit that right now amino acids are more expensive than protein supplements. If the tests show that amino acids work out O.K., increased commercial production could lower their cost.

This might give hog producers a cheaper and nutritionally satisfactory means of stretching their protein supply.

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FOR IMMEDIATE RELEASE

Set Three Grain Grading Schools in Southern Illinois

URBANA--Three grain grading and marketing schools conducted by University of Illinois College of Agriculture staff members are scheduled for three southern Illinois cities.

Dates and locations are as follows: June 1, high school band room, Carlinville; June 2, Community High School on route 127 north of Nashville; and June 3, Farm Bureau Building, Effingham.

L. F. Stice, department of agricultural economics, and R. O. Weibel and W. O. Scott, department of agronomy, will conduct the schools.

The program will cover wheat quality, price outlook and varieties during the morning session, beginning at 10 o'clock. In the afternoon, grain grading practice will be supervised by qualified grain inspectors from the Illinois and U. S. Departments of Agriculture.

The schools are open to anyone interested in grain grading. There will be no registration fee.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

U. of I. Begins "Disease-Free" Hog Production

URBANA--The University of Illinois College of Agriculture has plunged into the new era of producing "disease-free" hogs.

Research workers are raising and grooming some 175 young "disease-free" pigs as initial breeding stock for the College of Agriculture's new animal breeding research farm.

Through rigid sanitary controls, explains animal scientist A. H. Jensen, these pigs escape 80 percent or more of the common swine diseases. Such diseases annually rob hog producers of millions of dollars in income.

The University's "disease-free" pigs take their first breath of life inside a sterilized metal delivery hood. Animal scientists and veterinarians plunk them here after removing them from the sow by hysterectomy. A surgical delivery, says Jensen, breaks the disease cycle between the sow and her offspring.

While pigs are in the delivery hood, workers quickly clean them up, tie off navel cords and notch their ears for identification purposes.

Before the pigs scarcely realize they are alive, they are whisked off to individual sterilized incubators. They remain here, each one all by his lonesome, for one week. Three times a day they are fed a meal of modified cow's milk.

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Keeping the baby pigs isolated prevents them from picking up any diseases, explains Jensen. Workers who feed and care for the pigs wear face masks and sterilized boots and clothes so that they won't transmit any diseases to the pigs.

After the pigs have been in isolation for one week, the workers switch them to brooders. Each brooder houses five or six pigs until they are four weeks old. Then all pigs of comparable age are housed together on sanitary finishing floors.

Unlike the proverbial piggy who went to market, few of these pigs will be sold. Instead they'll make up the first "disease-free" swine herd for the animal breeding research farm.

Animal scientists and agricultural engineers will utilize this new farm to study and develop improved hog production methods and environmental controls.

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FOR IMMEDIATE RELEASE

U. of I. Announces All-Industry Poultry Day

URBANA--Poultrymen interested in new feeding and management methods tested at the University of Illinois this past year can hear about them on Monday, June 20.

The College of Agriculture announces that its annual All-Industry Poultry Day is scheduled for that date. The program will feature research reports as well as several outstanding guest speakers.

In one project, workers have fed pullets a simplified corn-soya laying diet. They have compared the performance of these pullets with that of other pullets receiving a combination of several energy and protein concentrates.

Research workers will report the feed consumption data for these hens, their body weight and egg-laying records.

All interested persons are invited to attend.

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FOR IMMEDIATE RELEASE

Release New Soybean For Seed Increase

URBANA--The University of Illinois department of agronomy has released 3,600 bushels of the new Lindarin soybean for seed increase during 1960.

More than 100 Illinois seed growers will participate in the program to make seed of this new variety available to farmers by 1961.

Lindarin was produced from a cross of the Lincoln and Mandarin varieties. It was developed at Purdue University in cooperation with the U. S. Regional Soybean Laboratory at Urbana.

The new soybean is adapted for the northern two-thirds of the state. It is less susceptible to stem canker than other varieties and is resistant to frog-eye leaf spot and some races of downy mildew.

Yields will equal those of Harosoy, U. of I. agronomist W. O. Scott reports. But Lindarin will mature one to two days earlier. The lower pods will also form higher off the ground, tending to reduce combining losses. The soybean stands better than Harosoy and resists shattering in the field.

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[illegible] New System for Food Processing

[illegible]--The University of Illinois department of aeronomy has [illegible] 4,000-megahertz of the new Jindalee system [illegible] over [illegible].

More than 100 million food processing will multiply in the [illegible] to make sure of this not entirely available to farmers by 1984.

Lindberg was produced from a group of the School and Industrial [illegible]. It has developed or Purdue University is cooperation with [illegible] 3. Regional northern laboratory at Urbana.

The new system is adapted for the northern hemisphere of the [illegible] It is just analogous to time counter than other variations and [illegible] to fog-free land spot and some cases of dairy milking.

Radio with equal those of Jacobsen, U. of I. aeronomy M. C. [illegible] terrain. Air industry will measure can to the days satellite. The [illegible] pass will also face injure off the ground, leading to helps [illegible] lawsuit. The workers already notice that forward and radiate [illegible] in the field.

NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Too Soon to Switch to Early Corn, Soybean Varieties

URBANA--University of Illinois crops specialists today warned weather-weary Illinois farmers to slow down on plans to switch to early-maturing corn and soybean varieties.

Agronomist W. O. Scott says recommended corn varieties planted as late as June 12 have averaged around 26 percent moisture at harvest.

This means that farmers who plant late run some risk of harvesting corn with higher than average moisture content. But chances of smaller yields from earlier maturing varieties will usually offset this disadvantage.

U. of I. agronomists suggest planting normal hybrids in northern and north-central Illinois--from Peoria northward--up to June 10. From Peoria south to Mattoon, the late date for planting recommended varieties is set at June 15. Farther south there's no need to worry until around the last of June.

Switching to soybeans, Scott says he sees no reason for central Illinois farmers to switch from the recommended Adams or Shelby soybean variety until early June--or more specifically around June 10.

He advises central and north-central Illinois farmers to stick with Harosoy or Hawkeye variety until June 20 or 25. Assuming normal frost dates this fall, either one will still outyield the early-maturing Chippewa variety.

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5/26/60

FOR IMMEDIATE RELEASE

Agronomists Seek Molybdenum Trial Results

URBANA--The University of Illinois department of agronomy today asked all farmers who use molybdenum treatment on soybean seed this spring to help test its value.

Molybdenum is a minor element needed for plant growth, but research several years ago showed that the soil supplied a sufficient amount of it. However, molybdenum for mixing with soybean seed has been sold in Illinois this spring.

S. R. Aldrich, U. of I. soil scientist, stated, "We have no basis for encouraging seed treatment except for trial purposes." Only a few results were reported from exploratory trials last year, so the results were not conclusive. Aldrich suggests that Illinois farmers who treat soybean seed with molybdenum clearly mark the treated and untreated areas. They should then notify their farm adviser and plan to make yield comparisons this fall.

Carefully collected field results in different parts of the state will enable the agronomy department to make recommendations next year, Aldrich points out. On many of the University soil experiment fields, half of the soybean plots are being treated with molybdenum this year.

Research so far would indicate that this minor element is most likely to be deficient on acid, sandy soils. Indiana greenhouse experiments showed significant response to treatment in nine of 18 soils. In several cases liming the soil eliminated the molybdenum response. On neutral soils of about pH 7, molybdenum reduced yields.

Last year, field experiments in Indiana showed no yield increases in eight fields of soybeans, Aldrich reports.

Some visible growth increase was noted in one alfalfa field, but no increase from treatment was found in three other fields. At present, Indiana agronomists are making no recommendations for fertilizing alfalfa with molybdenum.

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FOR IMMEDIATE RELEASE

Hereford, Angus Field Days Scheduled at U. of I.

URBANA--Illinois Hereford and Angus breeders will travel to the University of Illinois June 5 and 12 for tours, judging and grading contests and informative talks.

Occasion for these events is the annual field days of the Illinois Hereford Association and the Illinois Angus Association. The Hereford breeders meet on June 5, while the Angus men move in June 12, reports livestock extension specialist H. G. Russell.

The June 5 program for Hereford breeders gets under way at 9:00 a.m. DST. They meet at the beef cattle farm for tours until the formal program begins at 10:30.

The group shifts to the Stock Pavilion for a potluck lunch at 12:30 p.m. After lunch there will be several talks, including one by Paul Swaffer, secretary, American Hereford Association.

The Angus Field Day, June 12, begins at 9:30 a.m. DST with tours of the beef cattle farm. This group switches to Illini Grove for a potluck picnic dinner at 12:30.

Fred Francis, American Angus Association representative, wraps up the afternoon program with his talk, "Angus Cattle--From the Mississippi to the Pacific."

Both programs adjourn at 3 p.m.

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NO

FOR IMMEDIATE RELEASE

Annual Illinois FFA Convention Slated June 7-9

SPRINGFIELD--More than 1,500 Illinois Future Farmers of America will gather here June 7-9 for their 32nd annual State FFA Convention.

These young men will come from every county as chapter delegates, state officers, award winners or contestants. The three-day program will feature speaking contests, business sessions, election of 1960-61 officers and other activities.

Future Farmers of America is the official organization of high school boys enrolled in vocational agriculture. In addition, boys who have been enrolled in vocational agriculture can maintain their membership for three years after graduation.

Illinois has nearly 500 FFA chapters. The official advisor to the Illinois FFA is H. R. Damisch, chief of agricultural education, Springfield.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Scientists Trying to Uncork Mother Nature's Secret

URBANA--Two young scientists quietly working in a University of Illinois laboratory are striving to uncork one of Mother Nature's best kept secrets--how the bodies of animals, including man, grow older.

These men are not interested in the superficial signs of aging, such as graying hair and sagging skin. Instead, they're investigating what goes on inside the billions of cells as animals grow older.

Body tissues, from fingernails to hair, are made up of many different kinds of cells, explains H. H. Draper, specialist in nutritional biochemistry. He adds that each kind of cell has a different aging rate. "Learning how the cell contents change as the animal grows older will help us understand the mechanism of aging," says Draper.

Draper's crewcut and youthful looks belie his rating as a top-notch research scientist in the College of Agriculture. A University of Illinois graduate, he earned his Ph.D. in 1952. After a two-year hitch with Merck, Sharpe and Dohme Company, he joined the University of Illinois department of animal science staff in 1954.

Draper became interested in studying the aging process after he attended several scientific meetings on the subject. It seemed that hardly anything was known about the chemical changes that occur as man grows older. So Draper tackled this intriguing study.

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[illegible] Trying to Crack Golden Thread Secret

[illegible]—Two young scientists doing work in a University [illegible]nois laboratory are striving to unravel one of Nature's [illegible]per secrets—how the bodies of animals, including men, grow [illegible].

These men are not interested in the superficial signs of aging, [illegible] graying hair and sagging skin. Instead, they're investigating [illegible] on inside the billions of cells in animals grown older.

Body tissues, from fingernails to hair, are made up of many [illegible] kinds of cells, explains [illegible] R. Larsen, specialist in anatomy [illegible] biochemistry. He adds that each kind of cell has a different [illegible]. "Learning how the cell contents change as the animal grows [illegible] will help us understand the mechanism of aging," says Larsen.

Dwayne's current and youthful looks belie his raising as a top-[illegible] research scientist in the College of Agriculture. A University [illegible] graduate, he earned his Ph.D. in 1951. After a two-year [illegible] with Ciba, Swiss and Swedish company, he joined the University of [illegible] in department of animal science where he still is [illegible].

Larsen became interested in studying the aging process after [illegible] several nutritional matrices on the subject. It seemed that [illegible] nutrition was known about the essential changes that occur as man [illegible] older. So Larsen tackled this intriguing study.

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Serving as his right-hand man is graduate student Thomas C. Detwiler from Waukegan. Ambitious yet patient, Detwiler is slowly working his way through the maze of courses and research that lead to a Ph.D. degree.

White rats, the standard laboratory animals, are playing an important role in this study. Draper explains that cells of all living organisms are basically similar. Therefore, the information they uncover about rats will also apply to other forms of life, including man.

Rats have one characteristic that's proving extremely helpful to Draper and Detwiler--they grow old rapidly. A one-year-old rat, for example, is equivalent in age to a 30-year-old man.

A two-year-old rat, although he doesn't have a receding hairline, is just as old as a 60-year-old man.

Draper and Detwiler are comparing cells from rats of different ages. More specifically, they are analyzing the nucleic acids found in the cells. Nucleic acids figure prominently in carrying genetic information and determining the physical characteristics of the body.

In other words, depending on the type of nucleic acid that is present, a rat may be a hefty rodent or a puny runt.

Nucleic acids also determine the composition of the cell proteins. And they have a marked influence on the life span. So they are the logical substances for study in connection with aging.

Analyzing these nucleic acids is no easy task. In the rat liver alone, there are an almost unbelievable 200 million cells. Detwiler estimates that it takes him and one assistant 80 hours to break down the cells from one liver into their main fractions and then analyze

donfiden Trying to tweak Heller Antony's secret - I

Sorrow as his middle-aged son in graduate student Tonne C. [illegible] from Washington. Ambitious yet patient, Hollister is slowly work- [illegible] a way through the maze of courses and research that lead to a [illegible] degree.

While here, the standard laboratory animals, rats plaything so [illegible] that this study. Proper equipment that calls of all kinds [illegible] are basically similar. Therefore, the information they [illegible] about rats will also apply to other forms of life, including man.

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A two-year-old rat, although he doesn't have a receding hair- [illegible] just as old as a 60-year-old man.

Draper and Hollister are researching cells from rats of different [illegible] More specifically, they are studying the nucleic acids found in [illegible]. Nucleic acids figure prominently in carrying genetic infor- [illegible] and determining the physical characteristics of the body.

In other words, depending on the type of nucleic acid that is [illegible], a rat may be a worthy pedigree or a pure mutt.

Nucleic acids also determine the composition of the cell pro- [illegible] that they have a marked influence on the life span. So they are [illegible] biological biochemists for study in connection with aging.

Analyzing these nucleic acids is no easy task. In the [illegible] alone, there are an almost unbelievable 300 million--million [illegible] or nucleotides that is RNA and one nucleotide so tiny to [illegible] the cells from one liver take many hours of work. Then analyzing

the nucleic acids in each part. Detwiler is also analyzing heart, muscle and brain tissues.

The scientists explain that before analyzing a rat they give it a dose of radioactive phosphorus. This helps them find out how fast the various components of the nucleic acids in young adult rats and old rats are being replaced.

How these nucleic acids change as the body grows older may reveal some of the mystery of how the body itself grows older. Although this particular study is relatively small in scope, it represents another step toward understanding how the complex human body functions.

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FOR IMMEDIATE RELEASE

Illinois Fertilizer Sales Set New Records

URBANA--Illinois farmers set a new fertilizer-buying record in 1959, the University of Illinois department of agronomy reported this week. Sales jumped 17 percent over those of 1958.

Mixed fertilizer sales totaled 663,138 tons compared with a previous high of 544,592 tons in 1958. Nitrogen material sales climbed to 216,272 tons compared with 177,254 tons in 1958. Phosphate materials edged up to 89,626 tons compared with 87,508 tons the year before.

Farmers bought less rock and colloidal phosphate and potash materials. Rock and colloidal phosphate sales totaled 495,240 tons compared with 511,286 tons in 1958. They bought 103,051 tons of potash materials compared with 104,882 tons the previous year.

The information for this report is supplied voluntarily by fertilizer manufacturers and blenders registered in Illinois. L. T. Kurtz, in charge of assembling the report, believes all major suppliers are included either directly or indirectly.

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FOR IMMEDIATE RELEASE

U. of I. Tests Milk Replacers

URBANA--Dairy calves receiving whole milk until they were at least two weeks old outgained calves started on the recommended level of milk replacer at five days of age in recent University of Illinois feeding trials.

In a series of tests, calves on milk replacers gained best when fed whole milk for 10 days, whole milk and replacer from the 11th to the 14th day, and milk replacer mixed 1 part to 9 parts of water from two to eight weeks of age.

Calves fed this ration gained 1.15 pounds a day compared with 1.26 pounds for calves on whole milk. Calves fed milk substitutes from five days to eight weeks gained less than a pound a day. Gains were figured from birth to 16 weeks.

Dairy scientist Ken Harshbarger says total feed costs ran $3.00 to $4.00 less for calves fed milk replacer than for calves fed a total of 360 pounds of whole milk during the first eight weeks. Whole milk was priced at $3.00 per hundred pounds.

The tests also showed the importance of adding the correct amount of water to milk replacers. When researchers tried mixing a ration of one part of milk replacer to six parts of water, the calves developed severe digestive disturbances and gains fell off.

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1. Veals milk Replacers

URBANA--Dairy calves receiving whole milk until they were 8 to 10 weeks old outgained calves placed on the recommended level of milk replacer at five days of age in recent University of Illinois dairy trials.

In a series of tests, calves on milk replacer gained best fed whole milk for 10 days, whole milk and milk replacer from the fifth to 14th day, and milk replacer mixed 1 part to 3 parts of water from 15 to eight weeks of age.

Calves fed this ration gained 1.12 pounds a day compared with pounds for calves on whole milk. Calves fed milk substitutes from days to eight weeks gained less than a pound a day. Calves were fed from birth to 16 weeks.

Dairy scientist Ken Nordheimer says total feed costs ran to $4.00 less for calves fed milk replacer than for calves fed a of 350 pounds of whole milk during the first eight weeks. Whole was priced at $3.00 per hundred pounds.

The tests also showed the importance of adding the correct of water to milk replacers. When researchers tried mixing a of one part of milk replacer to six parts of water, the calves developed severe digestive disturbances and coats fell off.

NEWS FROM AGRICULTURE
UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

U. of I. Plans Summer Orchard Day June 8

URBANA--More than 200 visitors are expected to attend the University of Illinois Summer Orchard Day June 8, announces John Titus of the Department of Horticulture.

The program has been planned in cooperation with the Illinois Horticultural Society. Titus points out that it's designed primarily for commercial fruit growers.

The program features (1) tours of the horticultural farm, (2) exhibits, (3) demonstrations of equipment, (4) informal discussions with staff members and (5) a tasty barbecue lunch.

One of the exhibits will include a display of experimental strawberry plantings. Another will show symptoms of virus diseases in stone fruits. And a third will display apples that have remained in cold storage since last fall.

The program gets under way at 9:30 DST at the Horticultural Field Laboratory on Florida Avenue. It should wind up around 3:30 p.m.

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FOR IMMEDIATE RELEASE

Farm Advisers Returning to College

URBANA--Farm advisers across the state are sharpening pencils and digging out discarded notebooks in preparation for their annual summer conference at the University of Illinois June 6-9.

For the first time in history, the advisers will enroll in special three-day short courses. Topics range from farm management to identification of plant diseases.

The University is offering the courses so that the advisers can keep up to date on new agricultural developments.

Farm advisers, known as county agents in most other states, are county representatives of the University of Illinois College of Agriculture Extension Service. They serve as "advisers" to farmers as well as urban residents who have agricultural-type problems, such as landscaping.

After the three-day short courses, the advisers will meet for several administrative sessions before returning to their home counties.

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FOR IMMEDIATE RELEASE

Five Seek FFA Award

SPRINGFIELD--Five farm youth are contending for the state Star Farmer Award, the highest honor in Illinois FFA.

One of them will receive it at the closing session of the State FFA Convention coming up June 7-9 at Springfield.

The contenders are Gary Fichty, 18, son of Mr. and Mrs. Donald Fichty, Monroe Center; Terry Haynes, 17, son of Mr. and Mrs. Byron Haynes, Waverly; Gerald Hoffman, 17, son of Mr. and Mrs. John E. Hoffman, Earlville; Gerald Taylor, 18, son of Mr. and Mrs. Wayne Taylor, Danville, and Allen Wolff, 17, son of Mr. and Mrs. Frank Wolff, Mason.

Star Farmer selection is based on growth and earnings of FFA-supervised farming activities, along with general scholastic achievement and school and community activities.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR A.M. RELEASE FRIDAY, JUNE 10, 1960

Hoffman Named FFA Star Farmer

SPRINGFIELD--Gerald E. Hoffman, Earlville, last night received FFA's highest honor in Illinois--the State Star Farmer Award. It was presented to the 17-year-old farm youth at the closing session of the 32nd annual State Future Farmers of America Convention in Springfield.

The State Star Farmer degree is annually awarded to the most outstanding state FFA member.

This marks the third straight year in which the Hoffman name has been linked with the Star Farmer Award. Gerald's brother, Kenneth, was the winner in 1958. In 1959, the winner was no relation, but a Hoffman nevertheless--Jerry Lee Hoffman of Carlock.

This year's winner is the son of Mr. and Mrs. John E. Hoffman. Gerald enrolled in the Earlville Vocational Agriculture Chapter four years ago. His first projects included three registered Milking Shorthorns. He now has 118 Milking Shorthorns, plus a flock of Hampshire ewes and lambs and a number of Yorkshire feeder pigs.

Gerald also holds a State Farmer degree, has been president of the Earlville FFA chapter for the past two years, has served two terms as a sectional vice-president in the Illinois FFA Association and has won first place in public speaking at the sectional level.

He has also served in parliamentary procedure activities, has been a delegate to the national FFA Convention and has received 25 local production awards.

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For Public Release Tuesday, June 10, 19[illegible]

[illegible] Democratic Boys' Clubs

SPRINGFIELD--Gerald F. Dirksen, Lockville, last night received a signed bond in Illinois--the Prize Oral Finance Award. It was awarded to the 17-year-old Boy Scout for the closing address of the annual State Private Business of America Convention in Springfield.

The Atlas Fair Trades Group is annually awarded by the most outstanding state FTA member.

This marks the third straight year in which the Dirksen name has been linked with the Boys Clubs Award. Gerald's brother, Benedict, was winner in 1958. In 1959, the winner was no relation, but a man appropriately--Gerry Dirksen of Carbondale.

This year's winner is the son of Mr. and Mrs. John J. Dirksen, enrolled in the Lockville Vocational Technical Institute Chapter Boys Club. His first projects included three completed Safety Stamp [illegible]. He now has his Pilot Education Certificate, plus a floor of Lockville and Lenox and a number of Vocational Teacher Jobs.

Gerald also holds a Boys Career Award, has been President of Lockville FTA chapter for the past two years, has served two [illegible] as a regional vice-president in the Illinois B.A. Association and [illegible] first place in public speaking at the area and level.

He has also served in youth leadership positions, has [illegible] a delegate to the national FTA convention and the recipient of [illegible] Lockville awards.

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FOR IMMEDIATE RELEASE

Sorghums Have Good and Bad Points

URBANA--One of the wettest springs in recent years has many farmers looking to sorghums as emergency crops for those many acres that could not be planted to corn.

University of Illinois agronomist W. O. Scott says the hybrid grain sorghums are definitely one answer to the problem. Research shows that these sorghums will compete favorably with corn both in yield and in feed value.

More important, though, sorghums have proved their ability to outperform corn in years of late planting. And grain sorghums have outyielded corn in unusually wet or dry years.

But any encouragement for planting the new sorghums should also include a word of caution for farmers who aren't familiar with them, Scott warns:

The fact is that during a wet or early fall sorghum harvest can become quite a headache. First thing farmers notice in bad years is that it's hard to get sorghums dry enough to harvest. Whereas you normally pick corn at 20 to 22 percent moisture, sorghums should be below 18 percent moisture for combining.

Next problem is in storing sorghums without damage. Unless you have a dryer, you may run into trouble with grain sorghums stored as low as 12.5 percent moisture.

Problem No. 3 is that sorghums don't stand as well as corn in the field. Farmers can expect lodging after the first frost.

These problems are the exception more often than the rule, Scott explains. But they do point up the fact that farmers who aren't familiar with the new sorghums should learn something about them before they plant.

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FOR IMMEDIATE RELEASE

Alfalfa Put On Cutting Schedule

URBANA--A University of Illinois agronomist suggests that farmers shoot for three cuttings of alfalfa in northern and central Illinois and four cuttings in the southern part of the state.

D. W. Graffis gives these guide lines to use in setting up a cutting schedule. Simply mark the dates of the first and last cuttings on the calendar; then space the middle cutting or cuttings equally between them.

Alfalfa maturity, one-tenth bloom, should guide (or have guided) the first cutting. As for the last cutting, farmers should plan on September 1 in northern Illinois and around September 15 in central Illinois. Though there's not much solid data on southern Illinois conditions, Graffis would put the final cutting date there at about September 30.

He doesn't suggest swearing by the calendar in cutting hay--these are simply guide lines. In any case, the things to consider are cutting at one-tenth bloom for maximum quality, getting as many cuttings as possible for maximum yield and timing the last cutting so that alfalfa has time to regain strength to over-winter.

DuPuits is singled out as a variety that could probably stand four cuttings in most parts of the state. It's an early, fast growing sort and tends to be stemmy at three cuttings a year. Then, too, it's wilt-susceptible and thus is good only for short-term stands, so you might as well make the most of it.

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For immediate release

Life Put-up Cutting Schedule

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FOR IMMEDIATE RELEASE

More Credit Needed For Future Farm Operators

URBANA--Farm operators in the future will have to borrow more money to provide needed operating capital, a University of Illinois agricultural economist reports.

F. J. Reiss cites the figures to show that many Illinois farm operators' earnings are no longer large enough to meet living needs, pay income and social security taxes and leave enough money to accumulate the necessary operating capital.

Analysis of 1959 Illinois farm business records shows that one-man tenant-operated grain farms required operating capital of nearly $15,000. Livestock farm operators had over $21,000 invested in livestock, feed, grain, machinery, equipment and other improvements.

Traditionally, farmers have built up this investment through savings and inheritance. But Reiss believes that in the future many farmers, especially young operators, will have to depend more on creditors for this needed operating capital.

To provide this type of credit, lenders are now making intermediate-term loans of two to three years. With present earnings on many Illinois farms, operators may expect to have some intermediate debt almost continuously, Reiss believes.

This change in the farm financial picture is really part of a longer trend, the economist points out. The farm tenancy system is really an earlier stage of this same process. When the farm operator could no longer afford to buy all the land he wanted to farm, he rented it from landowners. The farmer today often can not afford to own all of the capital equipment to operate his farm. So he is "renting" this capital in the form of credit.

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FOR IMMEDIATE RELEASE

Erysipelas Germs Stay on Farm for Long Time

URBANA--Erysipelas-producing germs may live in some soils for several months, says Dr. R. D. Hatch, University of Illinois College of Veterinary Medicine.

In alkaline soils they not only live, but thrive and multiply during the summer months. That is why certain areas in the state have an erysipelas problem year after year. It may also explain why new erysipelas outbreaks occur on farms where hogs are being raised for the first time in several years.

Typical erysipelas signs vary with the severity of the infection. In acute outbreaks, swine may die with little or no previous indication of illness. In less serious cases, fever and appetite loss may be the first disease signs. Enlarged joints and skin lesions may appear in the chronic form of this disease.

Erysipelas can be prevented by a planned vaccination program. When routine erysipelas vaccination is not carried out, and a farmer suspects erysipelas, he should isolate infected animals and contact a veterinarian to establish a diagnosis. A vaccination program may still protect the rest of the herd.

Dr. Hatch adds this note of caution: It is advisable to wear rubber gloves while handling animals suspected of having erysipelas, or the live-culture vaccine, since a painful, slow-healing infection may result when erysipelas germs come into contact with scratches and other breaks in the human skin.

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Cryptosporidiosis Found in Farm Animals

[illegible]--Cryptosporidiosis-producing germs may live in some soils for several months, says Dr. L. G. Ward, University of Illinois College of Veterinary Medicine.

In alkaline soils they not only live, but survive and multiply in the summer months. That is why certain areas in the above have contagious problems year after year. It may also explain why few cryptosporidiosis outbreaks occur on farms where dogs are being raised for the first time in several years.

Typical cryptosporidiosis diarrhea with the passing of the infected [illegible]. In acute outbreaks, young may die with little or no previous [illegible] of illness. In less serious cases, fever and anorexia lasting [illegible] the first diarrhea stage. Enlarged joints and other lesions may [illegible] in the chronic form of this disease.

Cryptosporidiosis can be prevented by a dynamic preventative program. [illegible] cryptosporidiosis prevention is not certain cut, and a farmer [illegible] cryptosporidiosis, he should locate infected animals and construct a [illegible] to overcome a disease. A vaccination program may still [illegible] the rest of the herd.

Dr. Ward adds this note of caution: It is advisable to wear [illegible] gloves while handling animals suspected of having cryptosporidiosis. [illegible] the live-cattle washing, plays a critical disinfecting [illegible] [illegible] when cryptosporidiosis germs were later carried with manures and other [illegible] in the human diet.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Farm Income Reports Can Be Confusing, Economist Warns

URBANA--Various reports on changes in farm incomes can be confusing unless one knows how to interpret them, a University of Illinois agricultural economist cautioned this week.

A. G. Mueller stated that there is no one best way to measure changes in farm income. He pointed out that federal income tax regulations provide specific methods for figuring farm income on either a cash or an accrual basis.

Gross farm income estimates are made by the U. S. Department of Agriculture by adding together sales from farm marketings, government payments, value of home consumption and rental value of farm dwellings. "Realized net farm income" is then derived by subtracting cash operating expenses and depreciation. "Total net farm income" is also reported by taking realized net income and adjusting for "net change in farm inventories."

All USDA figures are made for the state as a whole. The income per farm is estimated by dividing the totals by an estimated number of farms in the state.

Farm business records can be used to calculate several measures of farm earnings by using the individual farm income and expense figures, Mueller pointed out. The net income figure, often reported as "farm and family earnings," differs in two ways from the USDA net income figures. The rental value of farm dwellings is omitted, and a change in total grain and livestock inventory values is included.

Illinois farm business records in 1959 showed that farm and family earnings dropped about 40 percent below 1958 in northern Illinois and 20 percent in southern Illinois. The USDA estimates show that 1959 "realized net farm income" dropped 21 percent below 1958 in Illinois.

The income of a farm business includes returns to capital invested, unpaid labor and management efforts. It is sometimes confusing when farm incomes are compared with income from wages, salaries of professional people, profits from business corporations or other parts of our economy, Mueller concluded.

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[illegible] are important [illegible]

[illegible] farmers can be considered, economically speaking

[illegible]--values results on farms in farm income can be co[illegible]
[illegible] unless one farms can be interpret them, a necessary of [illegible]
[illegible] usually overlooked when [illegible] this work.

[illegible] G. Shepherd stated that there is no one best way to measure [illegible]
[illegible] by farm income. He pointed out that federal income tax [illegible]
[illegible] provides specific methods for figuring farm income on either a ca[illegible]
[illegible] accrual basis.

Farm farm income estimates are made by the U. S. Department [illegible]
[illegible] agriculture by adding together sales from farm marketings, government [illegible]
[illegible], value of home consumption and rental value of farm dwellings [illegible]
[illegible] net farm income" is then derived by subtracting cash operating [illegible]
[illegible] and depreciation. "Total net farm income" is also referred to [illegible]
[illegible] realized net income and adjusting for "net change in farm inv[illegible]
[illegible].

All IRS figures are given for the states as a whole. The [illegible]
[illegible] farm is estimated by dividing the totals by an estimated num[illegible]
[illegible] in the state.

Farm business records can be used to calculate several [illegible]
[illegible] of farm activity by using the individual farm income and expense [illegible]
[illegible], machine hours used, etc. The net income figure, often reported [illegible]
[illegible] and family earnings, differs in one main from the IRS net income [illegible]
[illegible]. The value of home consumption is omitted, and a change [illegible]
[illegible] total farm and livestock inventory value is included.

Illinois farm business records in 1983 showed that farms [illegible]
[illegible] averages dropped about 3 percent below 1982 in northern Illinois [illegible]
[illegible] operator in southern Illinois. The cash returns also fell [illegible]
[illegible] net farm income dropped 21 percent below 1982 in Illinois.

The income of a farm business includes payments to capital [illegible]
[illegible], unpaid labor and management effort. It is sometimes considered [illegible]
[illegible] farm income can be compared with income from wages. Adjusting of [illegible]
[illegible] monthly, producing farm business reports, or other parts of [illegible]
[illegible], limited considered.

FOR IMMEDIATE RELEASE

Lean Hogs Gain More Rapidly Than Fat Ones

URBANA--Recent USDA tests reveal that lean hogs can gain more rapidly and efficiently than fat ones.

This information proves that swine growers can produce meatier carcasses without sacrificing feedlot performance. Many hog producers have wondered whether this was possible, explains University of Illinois livestock specialist G. R. Carlisle.

In the tests, USDA workers started with one group of Duroc hogs. When these hogs weighed about 175 pounds, their backfat thickness averaged 1 1/2 inches.

From these hogs, workers selected a line noted for high backfat thickness. They also selected another line noted for low backfat thickness. Then they raised four generations of the hogs.

By the fourth generation, the lean hogs, with a low backfat thickness of 1.25 inches weighed 35 pounds at weaning. They gained 1.58 pounds daily until reaching 175 pounds.

The other hogs, with a high backfat thickness of 1.8 inches, weighed only 30 pounds at weaning. And they gained only 1.47 pounds until reaching 175 pounds.

Backfat thickness, incidentally, is the amount of fat covering the carcass on the back. The less backfat, the meatier the hog.

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6/9/60

FOR IMMEDIATE RELEASE

Blackleg Kills Cattle Quickly

URBANA--Blackleg often kills cattle within 24 hours after striking, says Dr. J. R. Pickard, of the University of Illinois College of Veterinary Medicine.

Because it kills so quickly, cattle farmers in blackleg areas should vaccinate young animals regularly each year to prevent an outbreak. Calves and cattle under two years are most vulnerable to this disease. Calves should be vaccinated routinely at three months and again at nine months.

Blackleg is caused by a spore-forming germ that can live in soil for many years. It can be picked up through grazing or can enter the body through cuts or punctures in the skin.

Since blackleg is both highly infectious and deadly, have a veterinarian examine the herd immediately if the disease is suspected. Without a diagnosis, blackleg is easily mistaken for anthrax or malignant edema. All animals dying from this disease should be buried deeply under earth and lime to prevent the spread of infection.

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WDR:mfb
6/9/60

NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Nurserymen Plan Annual Meeting at U. of I.

URBANA--The Illinois State Nurserymen's Association announces its fourth annual short course June 21-22 at the University of Illinois.

Although the course covers several major areas, management in the nursery business will receive particular attention, reports H. R. Kemmerer, U. of I. landscape research worker. Kemmerer is also secretary of the ISNA.

Among the topics are (1) what it means to manage in the nursery business, (2) fundamentals of selling and (3) good management policies.

Highlighting Wednesday's program will be discussions of landscaping, woody plant propagation, plant diseases and insects.

At various times during the two-day meeting, the group will tour University and Illinois Natural History Survey greenhouses, hedge and turf plots and flower gardens.

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PAC:mfb
6/16/60
NO

FOR RELEASE TUESDAY, JUNE 21, 1960

U. of I. Scientists Report Concentrated Milk Study

LOGAN, UTAH--Two University of Illinois milk scientists reported today that recent developments in milk sterilization make it possible to produce sterile milk with flavor comparable to that of fresh pasteurized milk.

Speaking at the 55th Annual American Dairy Science Association meeting at Utah State University, H. K. Wilson and E. O. Herreid said the flavorful sterile milks are processed by heating milk to very high temperatures for periods ranging from a fraction of a second up to four seconds.

This process causes chemical changes which in time affect the appearance of the milk, but which have not been completely understood.

To help solve the problem, the U. of I. scientists diluted concentrated milks to the composition of the original milk. They then subjected the milks to a force up to 10,000 times gravity in an ultracentrifuge.

Pictures taken of the milks during centrifugation were measured to determine the rate of movement and size of the particles.

Therefore, the scientists reported, it was possible to follow size and structure changes of the protein particles during thickening.

This work has resulted in better understanding of the thickening process. The research also shows that the protein particles in concentrated milks become large enough during thickening to be seen with a microscope.

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HDN:mfb
6/16/60

FOR RELEASE WEDNESDAY, JUNE 22, 1960

University of Illinois Dairy Scientists
Report Test Tube Mammary Gland Study

LOGAN, UTAH--Four University of Illinois dairy biochemists today reported that they have kept cow udder tissue cells alive in laboratory test tubes for more than two and one-half years.

B. L. Larson, K. E. Ebner, C. R. Hoover and E. C. Hageman said they are using the test tube cells to study processes that control milk formation in the mammary gland.

The scientists gave the report at the 55th annual meeting of the American Dairy Science Association at Utah State University.

They said that for a short time the test tube cell cultures continue to make milk in the laboratory.

After a few days, however, this property is lost even though the cells continue to grow and organize as if they were still in the cow.

The scientists said this research may ultimately unlock enough secrets to explain how milk is produced within the cells.

The studies are also providing information on what happens to body cells when they grow under abnormal conditions. This type of information is needed to learn why some cells become cancerous and others remain normal.

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HDN:mfb
6/16/60

The Herald, Wednesday, June 22, 19

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[illegible] Their Dairy Plant Study

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[illegible]
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FOR RELEASE MONDAY, JUNE 20, 1960

University of Illinois Scientists Report
on "Slobber Hay" at ADSA Meeting

LOGAN, UTAH--A number of cases of cows slobbering excessively after eating second-growth legume forages, principally red clover, has prompted a study of an unknown "slobber factor" found in the forages, two University of Illinois dairy scientists reported today.

Speaking before the 55th annual meeting of the American Dairy Science Association at Utah State University, J. H. Byers and H. P. Broquist said that they have been able to reproduce the condition in the laboratory.

The scientists explained that generally cows eat 5 to 15 pounds of the forage, begin to salivate profusely and then stop eating.

Also, hot water extracts of the forage usually cause excessive salivation in less than an hour when administered to cows by drenching.

The scientists also were able to produce excessive salivation in guinea pigs by adding red clover containing the slobber factor as 40 percent of the guinea pig diet.

Research to date indicates that the unknown slobber factor may be an alkaloid, the scientists said.

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HDN:mfb

NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Shearing Lambs Has Advantages in Summer

URBANA--University of Illinois tests have proven what many sheepmen have suspected--that lambs shorn in the summer gain faster than unshorn lambs.

As a matter of fact, the University of Illinois shorn lambs gained one and one-half times faster, reports animal scientist E. E. Hatfield. From October to February, however, unshorn lambs gained as well as shorn lambs.

The shorn lambs also seemed more comfortable, alert and active in the summer. This seemed especially true of ram lambs.

Hatfield points out that shearing has definite advantages if sheepmen use ewe or ram lambs for breeding. It seems that the wool's weight cuts down on their breeding efficiency.

Shearing does, however, have its disadvantages:

1. Flies may bother lambs shorn too closely.

2. Summer-shorn wool is small in amount and short in staple. But the wool's value almost offsets the shearing's cost.

3. Shorn lambs in extremely short fleece do not look as well when offered for sale as do unshorn lambs.

Despite these disadvantages, Hatfield recommends shearing lambs if the weather turns extremely hot this summer.

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PAC:mfb
6/13/60

FOR IMMEDIATE RELEASE

Horticultural Orchards Scene of Bustling Scientists

URBANA--Horticulturists at the University of Illinois are almost in perpetual motion during the summer growing season.

Take R. K. Simons for example. During the winter he tabulated data from last year's strawberry irrigation work. Now he's working on this year's irrigation studies. He's interested in learning if irrigation increases yields and whether or not its costs are prohibitive.

Chester Zych has set out strawberries this spring. He's the man primarily responsible for the new varieties developed at Illinois. All winter Zych nursed along seedlings of new varieties in the greenhouse. With the first sign of good planting weather, he moved them outdoors.

As soon as they begin producing, he'll analyze the berries to see if they have value as commercial or home garden varieties.

D. F. Dayton is focusing his attention this summer on apples--apples immune to apple scab disease. The U. of I. is playing a key role in developing varieties immune to this dreaded disease which each year takes a tremendous toll of apples.

Last year a team of scientists from Rutgers, Purdue and Illinois grew several thousand apple seedlings from controlled crosses. These seedlings represent potential new varieties. During the winter Purdue plant pathologists inoculated the seedlings with the fungus that causes apple scab.

As expected, many seedlings died. But many also survived. Those that survived are now theoretically immune to the disease.

-more-

Dayton, along with several helpers, has set out these surviving seedlings in the Illinois orchard. The seedlings grow until they begin bearing fruit within 3 to 7 years. Then Dayton begins evaluating the fruit to see if these potential varieties look promising for development into full-fledged new varieties.

The work of John Titus and J. C. McDaniel takes them to southern Illinois. Titus is running potassium and nitrogen tests with the cooperation of Eckerts' Orchards in St. Clair county.

McDaniel is working with the Missouri Botanical Gardens near St. Louis. It seems their paw-paw trees aren't pollinating as they should. McDaniel is devising new methods so the trees will cross-pollinate.

Although the work of R. V. Lott keeps him indoors most of the time, he's keenly involved in the University's apple research. Right now he is carefully evaluating certain quality characteristics of new apple varieties. He's particularly interested in their quality in relation to their stage of maturity when picked.

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6/13/60

FOR IMMEDIATE RELEASE

Strangles Hits Young Horses

URBANA--Young horses and foals are the mostly likely victims of strangles, says Dr. J. P. Manning, University of Illinois veterinarian.

Adult horses that haven't had the disease are also susceptible. Although the disease occurs sporadically throughout Illinois, it is most common where large numbers of horses are kept together.

Strangles is caused by a bacteria. It is spread by direct contact and through contaminated premises. An animal's resistance to this disease is lowered by any number of factors, including general weakness, exposure to cold and damp weather, fatigue resulting from shipment, and confinement in poorly ventilated stables. Previous respiratory infections also predispose a horse to a strangles infection.

When an animal first gets strangles, the membranes lining the passageway at the back of the mouth become inflamed, and then abscessed. Certain areas in the neck become enlarged and painful. The animal's body temperature will rise sharply, often reaching 106 degrees. As the abscesses break, a heavy discharge of pus comes from the nostrils.

Dr. Manning says the animal will recover in two to four weeks after the abscesses break in uncomplicated cases. However, the nature of these infections and their location, makes it easy for them to spread within the animal, causing serious complications and even death. For this reason consult a veterinarian promptly when any horse shows illness.

To check strangles, separate all healthy young animals from infected horses at the first sign of infection. In addition keep all young mares new to premises isolated for two weeks before introduction to the healthy stud.

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WDR:mfb
6/13/60

NEWS FROM AGRICULTURE

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To help solve the problem, the U. of I. scientists diluted concentrated milks to the composition of the original milk. They then subjected the milks to a force up to 10,000 times gravity in an ultracentrifuge.

Pictures taken of the milks during centrifugation were measured to determine the rate of movement and size of the particles.

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HDN:mfb
6/16/60

For Science Monday, June 21, 19

of 1. Detecting Heat Denatured Milk Proteins

Tucson. (UPI)--The University of Illinois milk scientists no-
ted today that recent developments in milk pasteurization make it
ssible to produce a fluid milk with flavor resembling to that of
ch unheated milk.

Speaking at the 54th Annual Frontier Dairy Science Conventi-
ion at Utah State University, M. E. Allison said it is an overall mat-
ter of flavorful specific milks are produced by heating milk to very high
peratures for periods ranging from a fraction of a second up to 30
onds.

This process causes chemical changes which in turn cause
ssence of the milk, but which have not been conclusively identified.

In their study the pectins, and G. M. H. of Wisconsin discussed
contributed milks in the conversion of the original milk. They dis-
pussed the milks on a range of 10 to 10,000 times greater in the direc-
tation.

Primary taken of the milks during manufacturing were made
d to determine the rate of movement and also of the pectins.

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milk
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HDN:mfb

NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR RELEASE WEDNESDAY, JUNE 22, 1960

Report Dairy Calf Response to Carbohydrates in Milk Replacer Diet

URBANA--Dairy scientists at the 55th annual meeting of the American Dairy Science Association today heard three University of Illinois specialists report on the effects of adding certain carbohydrates to milk replacer diets for dairy calves.

K. A. Kendall, S. P. Netke and K. E. Gardner reported that when starch replaced approximately one third of the dried skim milk on an equal energy basis in a milk replacer diet, calves made average daily gains of .518 pound over a 42-day period. When no starch was added, the gain was .587 pound daily.

When hydrolyzed blackstrap molasses was added to the ration, calves gained an average of .466 pound daily. Blackstrap molasses without hydrolysis caused calves to scour severely. Scouring also occurred when cerelose was included in the diet, the scientists explained.

These studies point further to the inability of the young dairy calf to utilize certain carbohydrates when included in milk replacer diets.

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HDN:dl
6/20/60

FOR IMMEDIATE RELEASE

Three Diseases Threaten Tomatoes

URBANA--Home gardeners should soon be on the alert for a trio of tomato diseases--early blight, Septoria leaf spot and anthracnose.

According to University of Illinois plant pathologist M. B. Linn, these diseases work together in damaging tomato quality. Early blight and Septoria leaf spot cause the leaves to drop off. This exposure of the fruit to the sun contributes to anthracnose.

Control measures are the same for all three diseases. Tomato plants may need the protection of fungicide dusts or sprays when the tomatoes are about the size of golf balls.

Early blight shows up as small brown spots on the lower or older leaves. The spots form concentric rings, something like those on a target board. Affected leaves start to turn yellow around these areas and soon drop off.

Septoria leaf spot also develops as small dark spots on the lower leaves.

The spots have dark margins with gray centers. The leaves soon die and drop off.

Anthracnose is most evident at harvest as circular, water-soaked spots on the ripe or nearly ripe fruit. It's apt to be most common on plants that have lost much of their foliage from early blight and Septoria leaf spot. Leaf loss lets in too much sun, which in itself is damaging to tomato quality.

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[illegible]

[illegible] Diseases Causing Defoliation

[illegible]—Some gardeners should soon be on the alert for [illegible] of towards diseases—early blight, Septoria leaf spot and [illegible] diseases.

According to University of Illinois plant pathologists [illegible], these diseases work together to damaging tomato foliage. Early blight and Septoria leaf spot cause the leaves to dry up. This exposes the fruit to the sun contributing to sunscald.

Control measures are the same for all these diseases. These include avoiding the production of tomatoes where any kind of tomatoes were grown the year of early blight.

Early blight spores in the small brown spots on the leaves or fruit leaves. The spores then germinate, producing like those of Septoria leaf spot. Affected leaves start to turn yellow around these spots and soon dry up.

Septoria leaf spot also develops on small dark spots on the leaves.

The spores then work outside with gray centers. The leaves [illegible] die and very soon.

Cultivation is most evident in harvest as cracking, water-soaked spots on the side of nearly ripe fruit. This spot is in most [illegible] planes that have been used of that fruit. These are [illegible] Septoria leaf spots. Leaf loss lets in too much sun, which is [illegible] in causing to sunscald.

-end-

Control for all three diseases come from dusts or sprays that contain any of the following fungicides: maneb, zineb, ziram or captan. Maneb and zineb are the best of the four for controlling Septoria leaf spot, Linn notes.

Make the first application when tomatoes are about golf-ball size; then treat five or more times at 10-day intervals. Be sure to completely cover the fruit and leaves near the center of the plant.

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RFH:dl
6/20/60
NO

FOR RELEASE WEDNESDAY, JUNE 22, 1960

U. of I. Scientists Report Cottage Cheese Study at ADSA Meeting

URBANA--Homemakers know that cottage cheese sometimes develops undesirable flavors when it is stored at refrigeration temperatures.

Three University of Illinois cheese specialists reported today that these flavor defects resulted from psychrophilic bacteria growth in the cheese.

Speaking at the American Dairy Science Association meeting at Utah State University, R. A. Chaudhary, S. L. Tuckey and L. D. Witter reported on research designed to find wnether psycrophilic organisms that cause this spoilage come from the original milk or are added during processing.

They research proved that psychrophilic spoilage of cottage cheese was due to contamination that followed the cooking process. The spoilage is not caused by milk.

The cream dressing added to the cheese was an important source of contamination, the specialists explained.

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HDN:dl
6/20/60

FOR RELEASE WEDNESDAY, JUNE 22, 1960

U. of I. Scientists Report on Limburger Cheese at ADSA Meeting

URBANA--Two University of Illinois cheese specialists explained a quantitative procedure for determining the carbonyl compounds in Limburger cheese during today's session of the American Dairy Science Association meeting at Utah State University.

J. C. Colmey and S. L. Tuckey reported that carbonyl compounds, which are aldhydes, ketones and keto acids, are important flavor-contributing compounds in foods.

The scientists used the quantitative procedure to find which of these compounds increased in concentration throughout the ripening period.

Results of this research show that alpha ketobutyric acid and alpha keto isovaleric acid increased throughout the ripening period and undoubtedly contributed to cheese flavor.

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HDN:dl
6/20/60

NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Wet Weather Causing More Cutworm, Armyworm Trouble

URBANA--The black cutworm now looms as a bigger threat to corn than usual because of Illinois' siege of wet weather.

The adult moths of the cutworm usually lay their eggs in low, wet spots. Since so many fields are completely water-soaked, egg-laying is more general this year.

Cutworm survival will also increase under these conditions, resulting in more severe corn injury.

This warning comes from Steve Moore, entomologist with the University of Illinois and Illinois Natural History Survey.

The true armyworm, which attacks grasses, small grains and corn, is also causing more trouble. Wet weather eliminates parasites and diseases that normally hold down the true armyworm population.

The combination of wet weather and late-planted corn may also create an armyworm problem this fall. This little fellow especially likes younger corn. Therefore, when he develops late this summer, late-planted corn will be just his size.

The weather has not directly affected first-generation corn borers. But it may indirectly affect second-generation borers. Why? Simply because the borers can infest so many late-planted fields. On the other hand, borers may not seriously damage any one field, because they have their choice of many susceptible fields.

In contrast, wet weather makes some insects unhappy. Grasshoppers and chinch bugs, for example, prefer warmer and dryer weather. So the chances are that they'll cause little trouble this year.

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PAC:mfb
6/22/60
NO

FOR IMMEDIATE RELEASE

Simplified Laying Ration Highlights Poultry Day

URBANA--News of a simplified laying ration caught the interest of poultrymen attending the University of Illinois All-Industry Poultry Day last week (June 20).

"We are comparing the performance of laying pullets receiving this ration with that of pullets receiving a complex ration," H. M. Scott told the audience. Scott heads the U. of I. poultry division.

So far pullets receiving the simplified ration (1) weigh more, (2) use their feed more efficiently and (3) are laying just as many eggs as those getting the complex ration. The feeding trial is still in progress.

The simplified ration features ground yellow corn and soybean meal as its two main ingredients. Vitamins and minerals, of course, supplement the ration.

On the other hand, the complex ration contains nine main ingredients as well as vitamins and minerals. The contents include ground yellow corn, standard middlings, ground oats, fishmeal, soybean meal, alfalfa meal, meatscraps, dried distillers solubles and dried whey.

Both rations provide 17 percent protein.

In formulating the simplified ration, Scott and his co-workers took the attitude that "no single ingredient is absolutely essential to any ration." They also believe that ingredients used in formulating laying rations vary with cost factors.

Scott admitted he's not sure how the simplified ration will affect hatchability or chick quality.

Illinois workers began experimenting with the simplified ration at the request of poultrymen. They were wondering whether there was a simpler ration they could use.

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PAC:mfb
6/23/60

Simplified Ration Survey Highlights Problems, Cost

DECATUR--News of a simplified living ration survey was lis
poultrymen attending the University of Illinois Egg-Industry Conf
last week (June 29).

"We are organizing the performance of laying pullets according
a ration with that of pullets receiving a complete ration," D. E.
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On the other hand, the complete ration contains more meat in
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and yellow corn, standard additives, ground oats, alfalfa, soybea
l, alfalfa meal, meatscraps, dried skimmilk solids and salt
d.

Both rations provide if packed pullets.

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Egg: admitted levels are even low the simplified ration wit
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a single ration they could use.

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(over)

FOR IMMEDIATE RELEASE

Farm Mechanization Field Days, June 28-29

URBANA--How Illinois farmers can effectively replace the pitchfork and scoop shovel with modern mechanized methods will be vividly demonstrated during the Farm Materials Handling Field Days June 28-29 at Exposition Gardens, Peoria, Illinois.

Educators, farmers and industry have combined their efforts in presenting a unique informational program on farm materials handling. An hour-long speaking program will begin at 2 p.m. and at 8 p.m. Tuesday and at 2 p.m. on Wednesday. More than 75 exhibits can be viewed before or after the speaking program.

Frank Andrew, agricultural engineering specialist from the University of Illinois, will kick off the speaking program with "The six points to consider in farm materials handling." He will give facts based on more than 10 years of research at the College of Agriculture. The provocative question, "Can you afford not to go to materials handling equipment?" will be tackled by agricultural economist Roy Van Arsdall. His comments will be based on current observations and research into the economic use of materials handling equipment.

Two farmers, Bob Lynch of Edelstein and Russ Jeckel of Delavan, will discuss, "Does it really work?" Both have pioneered in developing materials handling systems.

The final portion of the program will consider the relationships between landlord and tenant in outfitting a farm with materials handling methods. Dr. Lorin D. Whittaker of Peoria and his tenant, Jim Hotchkiss, of West Jersey, will discuss their experiences in equipping their farm. Charles Cox, of the Central Illinois Light Company will moderate the program, to be given in the all-weather Floriculture Building.

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JCE:mfb
6/23/60
NO

FOR IMMEDIATE RELEASE

Illinois DHIA Butterfat Production Reaches All-Time High

URBANA--Average butterfat production in Illinois Dairy Herd Improvement Association herds reached a record high last year--averaging more than 400 pounds per cow.

One herd in every four produced 450 or more pounds of butterfat. And a record 62,375 cows were tested.

University of Illinois dairy specialist Gary Harpestad says the state's 1,614 DHIA herds averaged 402 pounds of butterfat and 10,565 pounds of milk during the 1959-60 testing year.

The average return above feed costs was $257--a figure that has been bettered only twice before.

Harpestad credits accurate records for the spectacular showing of Illinois DHIA herds. He says records gave the dairymen a sound basis for culling unprofitable cows and helped them select outstanding heifers for herd replacements.

The U. of I. dairy specialist urges dairymen who are not on a record-keeping program to see their county farm adviser about starting one.

Harpestad says one of the several different programs available in most Illinois counties should fit the need of every dairyman.

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HDN:mfb
6/22/60
NO

Illinois Dairy Butterfat Production Increase Fifty-Three Pct.

DECATUR--Average butterfat production in Illinois dairy herd improvement Associations might possess a record high last year--approximately three fifty pounds per cow.

One herd in every four produced 450 or more pounds of butterfat and a record of 874 cows were tested.

University of Illinois dairy specialist Gary Lungwitz says statewide 1,517 DHIA herds averaged 401 pounds of butterfat and 9.5 pounds of milk during the 1952-53 testing year.

The average cotton cotton cows over the fifteen years have been increased only half below.

Improved cotton varieties recommend for the Associations show Illinois DHIA herds. In city records show the difference a breed bull cutting superfluous cows and higher than average contributing herd replacements.

The U. of I. dairy specialist urges dairymen who are not on the herd-improvement program to see their county farm advisor about starting.

Interested dairymen of the several different programs available most Illinois counties should fit the need of every dairyman.

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FOR IMMEDIATE RELEASE

Oats Stay Out of Disease Trouble

URBANA--Diseases aren't making much headway in oats this year.

Yellow dwarf, the virus disease that took a heavy toll last year, has done very little damage, reports H. Jedlinski, University of Illinois and USDA plant pathologist. The aphids that carry the yellow dwarf virus appeared later than last year and in much smaller numbers. By now oats in central and southern Illinois seem far enough along to weather any late infection by the virus. Late oats in northern Illinois may be more vulnerable, but Jedlinski thinks that chances for severe infections are relatively slight.

Halo blight has done some damage in central Illinois, Jedlinski reports. However, dry and sunny weather has checked further progress of the disease.

No rusts have been observed so far, and consequently no heavy damage is anticipated in central and southern Illinois. Rusts have only a remote chance of doing damage farther north among late-planted oats, where wet, cool weather has checked their development.

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RFH:mfb
6/22/60

Schedule of Ill. Swine Herd Improvement Association Field Days

1.	Clark County Swine Herd Impr. Assn.	June 20	6:30 p.m.	Martinsville
2.	Western Ill. Swine Testing Station	June 29	7:30 p.m.	Macomb
3.	Logan County Swine Herd Impr. Assn.	July 6	7 p.m.	San Jose
4.	Ford " " " " "	July 7	Evening	Melvin
5.	Jasper " " " " "	July 21	1 p.m.	St. Marie
6.	Lawrence " " " " "	July 29	Afternoon	Lawrenceville
7.	Whiteside" " " " "	July 30	All Day	Sterling
8.	Southwestern Swine Testing Station	August 6	2 p.m.	Mascoutah
9.	Forrest Swine Herd Impr. Assn.	August 22	7 p.m.	Wing

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6/22/60

Schedule of 111. Video Cart Performance Presentation
Week Ahead

Clark County Junior High Lger. Assn.	June 30	1:30 p.m.	Bakersfield
Dwelers 111. Video Testing Studio	June 30	7:30 p.m.	Hanford
Lyons County Junior High Lger. Assn.	July 6	7 p.m.	Los Alamos
Ford " " " "	July 7	Evening	Delano
Jackson " " " "	July 20	1 p.m.	St. Marys
"Lakeland" " " "	July 21	Afternoon	Independence
"Lakeland" " " "	July 28	All Day	Tracy
Southwestern Junior Service Station	August 4	6 p.m.	Bakersfield
Tucker Junior High Lger. Assn.	August 20	7 p.m.	Tulare

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Time Runs Out for Corn

URBANA--A University of Illinois agronomist today warned against any further efforts to plant corn where wet weather has continued to delay field work, but added that there's still time for soybeans.

W. O. Scott stated that farmers planting this late risk corn not maturing sufficiently before frost. Only that corn earmarked for silage could be safely planted at this time.

Soybeans are still in the cash crop planting picture, being better able to adjust to a shorter growing season.

Chippewa is the recommended variety for water-logged farmers in the north central part of Illinois, approximately between DeKalb and Peoria. Chippewa can be planted up to about July 10.

Scott said farmers in central Illinois, from Peoria to Mattoon, can stick with Harosoy until July 15 or 20; after that, Chippewa perhaps, but it would be a gamble.

In southern Illinois, Scott sets the latest possible planting date at about July 30, and says nothing earlier than Harosoy or Hawkeye should be planted.

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FH:mfb
7/27/60

For IMMEDIATE RELEASE

Soya Out for Corn

URBANA--A University of Illinois agronomist today warned farmers may further delays in plant corn where wet weather has caused them to delay field work, has added that there's still time for soybeans.

W. O. Scott advises farmers planning with late corn to consider carefully before shift. Only that corn accidentally for planting could be safely planted to this time.

Soybeans are still in the corn crop planting picture, being more adjusted to a shorter growing season.

Chippewa is the recommended variety for relay-planting farmers in north central part of Illinois, approximately between Danville and Ia. Chippewa can be planted up to about July 20.

Scott said farmers in central Illinois, from Peoria to Decatur, with Delaney until July 15 or 20; after that, Chippewa would be a gamble.

In southern Illinois, Scott sees the latest possible planting at about July 10, and says nothing earlier than Delaney or Dunfield be planted.

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FOR IMMEDIATE RELEASE

State 4-H Judging Contest Set for July 7

URBANA--More than 800 Illinois 4-H'ers are set to compete in the State 4-H Judging Contest July 7 at the University of Illinois.

Agricultural 4-H specialist Frank Mynard says the 4-H'ers will compete in dairy, poultry, livestock and vegetable judging. They will be trying for A and B ribbons in both individual and county team competition.

Highest ranking individuals in the state will enter special invitational contests to compete for the chance to represent Illinois in national contests later this year.

In national competition, dairy winners will judge at the National 4-H Dairy Judging Contest in Waterloo, Iowa, livestock winners at the International Livestock Exposition in Chicago, and poultry winners will attend an invitational contest at Colorado Springs, Colorado.

(Note to Editor: You can get names of local contestants from your county farm adviser.)

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27/60

FOR IMMEDIATE RELEASE

Top Winners in FFA Judging Contests Announced

URBANA--The Taylorville and Lena-Winslow Future Farmers of America chapters snared top honors in the FFA Judging Contests, June 21, at the University of Illinois.

The Taylorville team won first place in grain judging while Lena-Winslow took top honors on poultry judging.

So many teams competed in the dairy and livestock contests that judges merely selected the top 10. These 10 will compete again at the State Fair.

The top 10 teams in dairy judging included Clinton, Durand, Geneseo, Lexington, Nokomis, Normal, Oblong, Orangeville, Rankin and Pantoul.

In livestock judging, the top 10 teams were Easton, Edinburg, Galesburg, New Holland, Orion, Palmyra, Shelbyville, Geneseo, Stillman Valley, and Wyoming.

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For Immediate Release

Teams in 4-H Judging Contests Improved

URBANA--The Taylorville and Lexington teams of the complete ancred top honors in the 4-H Judging contests, from 21 the University of Illinois.

The Taylorville team won first place in dairy judging while Danalow took top honors on poultry judging.

So many teams competed in the dairy and livestock contests judges nearly selected the top 10. These 12 will compete again at State Fair.

The top 10 teams in dairy judging included Clinton, Geneva, Lexington, Monmouth, Forest, Odiong, Greenville, Marion and Ill.

In livestock judging, the top 10 teams were Tampico, Galesburg, New Holland, Orion, Sulphur, Shelbyville, Oswego, Stillman Valley, and Wyoming.

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FOR IMMEDIATE RELEASE

Egg Prices Determined in Grocery Store, Economist Emphasizes

URBANA--It's the consumer behind the shopping cart that actually determines egg prices, a University of Illinois agricultural economist emphasized this week.

J. R. Roush pointed out that terminal market prices can only act as a sounding board for prices established in the retail stores. A terminal market price cannot remain out of line with the true market value for any length of time.

If the price is too high, consumers will reject eggs and buy other foods. Market channels will fill up with eggs and prices will be forced down. If prices are too low, consumers will want to buy more eggs than are offered for sale. This situation will move prices higher.

It's this action of supply and demand that keeps prices at the equilibrium point, Roush emphasizes. Since eggs have not accumulated in market channels over any long period, eggs have been priced about right.

The real problem in our pricing system is that the terminal markets may fail as a sounding board for short run, day-to-day supply and demand changes. Prices may be set too high one day and the next day they may be adjusted down sharply to compensate for the error the day before. When this happens, the system may have an excessive number of price changes around the equilibrium price.

If terminal market prices were to do a better job of reflecting day-to-day changes in supply and demand, egg buyers would face fewer risks. Lower risks would reduce the margin needed and producers should obtain higher prices.

Since so few eggs pass through terminal wholesale markets, the ability of these markets to detect short run changes in supply and demand conditions can be questioned, Roush points out. We must continue to look for ways to improve our price reporting system for eggs, he concludes.

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6/27/60

NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Abundant Soil Moisture Over Entire State

URBANA--This season sets a new record in the abundant amount of soil moisture uniformly distributed over the whole state of Illinois.

D. B. Peters, soil scientist with the University of Illinois and the Soil Conservation Service reports a recent survey showed soils in all parts of the state have never been so uniformly supplied with moisture as this year. In fact, many areas have had too much to get crops planted.

Peters credits this situation to the 40 inches of February and March snow that melted slow enough to soak into the soil. The result was soil stored full of water and no floods generated from melting snow flowing off Illinois land.

The heavy floods in western Illinois were caused by water flowing down from Minnesota and Wisconsin, Peters explains.

In addition, rainfall has been plentiful this spring.

With normal temperatures for the rest of the season, Illinois soils are holding enough moisture now to carry the growing crops to maturity even if they receive no further rainfall, Peters reports.

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6/30/60

FOR IMMEDIATE RELEASE

Growing Numbers of Unvaccinated
Swine Help Spread Cholera

URBANA--Unvaccinated hogs help spread cholera, and the number of unvaccinated, unprotected animals is growing.

An estimated ten percent of all hogs were vaccinated in 1959 as against fifty percent in 1950. This simply means that farmers are giving cholera the chance to become epidemic.

Dr. J. R. Pickard, University of Illinois Extension Veterinarian, says healthy pigs should be routinely vaccinated at about six weeks. While some farmers regard hog cholera vaccination as just another production cost to be eliminated, when the disease strikes the loss of market weight swine exceeds the cost of routine vaccination for many years.

Cholera strikes without warning and usually kills swine within four to seven days. Death losses approach 100 percent in unvaccinated herds. And the few surviving swine are usually unthrifty.

The nature of this disease leaves the farmer no choice but to vaccinate. If the disease does strike an unvaccinated herd, the farmer has three choices. He can burn or bury carcasses, or call the rendering plant.

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6/30/60

FOR IMMEDIATE RELEASE

Artificial Breeding Up in Illinois Dairy Herds

URBANA--Illinois dairymen turned to artificial breeding at a record-breaking rate last year.

During 1959, the number of cows bred artificially equaled 35.4 percent of all Illinois cows kept for milk production. The previous high was 34.6 percent in 1958.

Proved sire data for the year shows that sires from artificial breeding organizations produced better daughters production-wise than did sires owned by individual dairymen.

University of Illinois dairy scientist Jerry Cash says average butterfat production for daughters of the 18 AI sires proved during 1959 was 476 pounds of butterfat. This compared with a 444 pound average for daughters of the 146 non-AI sires proved.

Also about 66 percent of the off-spring of AI sires produced more butterfat than their dams. Fifty-four percent of the daughters of non-AI sires out-did their dams in butterfat production.

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NEWS FROM AGRICULTURE
UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Five-Year Record Shows Improvement in Hogs

URBANA--Hog producers still a little skeptical of performance testing's value should glance at the Illinois Swine Testing Stations' five-year record from 1955 to 1959.

It reveals that (1) backfat thickness was significantly reduced, (2) average daily gains increased and (3) feed efficiency improved considerably.

This record proves that farmers can increase gains, save feed and produce meatier carcasses through selective breeding based on performance testing.

University of Illinois livestock specialist Terry Greathouse has just released this record, which summarizes data on more than 2,000 boars. The U. of I. works closely with the Illinois Swine Herd Improvement Association in operating the test stations.

Greathouse says that backfat thickness on boars tested in 1955 averaged 1.37 inches. By 1959 it had dropped to 1.16 inches, a reduction of about 2/10 inch.

This may not seem important. But remember that a 1/10-inch reduction on a 200-pound market hog is equivalent to 26 cents more value per hog. So the 2/10 inch means the farmer receives 52 more cents on each animal sold. If he sells 100 hogs, this quickly puts another $52 in his pocket.

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Daily gains in 1955 averaged 1.76 pounds. By 1958 they increased to 1.87 pounds. But they slipped to 1.75 pounds last year due to bitterly cold weather during the test periods.

Their small improvement, however, still has importance. Why? A mere 1/10-pound increase in average daily gains saves 6 days' time in producing a 200-pound market animal.

In discussing feed efficiency, Greathouse says that boars needed 336 pounds of feed for every 100 pounds they gained in 1955. By 1958 they needed only 295 pounds. But last year's cold weather upped it to 302 pounds. Even so, this is 34 pounds less than 1955's figure.

Greathouse points out that every pound of feed saved, saves the producer six cents on a 200-pound market animal.

During the five-year period, workers also tested a littermate barrow of each boar. They used the barrows to gather carcass data, such as loin eye area. Information derived from the barrow's carcass indicated what type of carcass the boar will produce in his offspring.

The ISHIA and the U. of I. feel this record clearly shows that farmers using a performance-tested boar can upgrade their hog production.

They admit that such a boar costs more money than an ordinary one. But statistics show he will pay his cost many times over due to the superior offspring he sires.

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FOR IMMEDIATE RELEASE

Visit International Lily Show for Tips on Lilies

URBANA--Illinois gardeners have little chance to visit commercial lily fields to see new varieties because most of these fields are located on the Pacific coast or in the Northeast.

But J. R. Kamp, University of Illinois floriculturist, reports that gardeners will be able to see these varieties July 8-10 without traveling so far. The lilies will be exhibited at the International Lily Show at the University of Wisconsin, Madison, Wisconsin.

To give visitors some idea of the scope of lily varieties available, lilies from all over the world will be displayed. Not all of these can be grown in Illinois, however, according to Kamp. But he points out that there will be plenty of information available at the show on varieties which are recommended in this state.

Outstanding experts will discuss various phases of raising lilies as part of the speaking program held in conjunction with the show. One of these speakers will be Jan de Graaff, world-renowned lily hybridizer.

Several Illinoisans will be taking part in the program. They include May T. Watts, Morton Arboretum, Lisle, Illinois, and Mrs. Arent Jacobson, Wilmette, Illinois.

The information about growing lilies is aimed at helping both professionals and amateurs. Since lilies offer considerable challenge to the Illinois gardener, this information should be particularly helpful.

Another feature of the three-day show will be a lily judging school for people with limited experience as well as those with greater experience.

The International Lily Show is sponsored by the North American Lily Society to provide educational assistance to those interested in growing lilies.

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FOR IMMEDIATE RELEASE

Receives $13,000 Grant to Study Roadside Ground Covers

URBANA--Motorists zooming along Illinois highways probably pay scant attention to ground covers that bank highways for miles and miles.

Yet without ground covers the roadsides would not be nearly so attractive. Even worse--erosion could soon undermine the roadbed.

Ground covers even boast a psychological value. The varying heights, shapes and colors of the plants help to reduce monotony. This, in turn, lessens drivers' fatigue.

In a never-ending search to find new and more efficient ground covers, the Illinois Highway Department recently granted $13,000 to the University of Illinois Department of Horticulture.

Spear-heading the University's study is landscape researcher H. R. Kemmerer. His goal is to select and develop ground covers that grow quickly, are attractive and stop erosion on steep slopes.

At the same time plants must adapt themselves to different climatic zones in the state. They should not harbor insects or diseases or require much care. And they should be easy to plant.

Kemmerer reports that he is already testing several ground covers. They are planted in Cook county and in Coles county near Charleston. This year he hopes to set out more ground covers for experimental testing.

He admits that it may take several years to complete the study. But the results should benefit Illinois motorists as well as motorists across the nation.

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7/5/60

FOR IMMEDIATE RELEASE

Wheat Supplies Larger; Support Lower; Prices Same as Year Ago

URBANA--As Illinois farmers prepare for the 1960 wheat harvest, one-fourth larger than last year, they face an uncertain harvest price and prospects for a post-harvest price rise.

Weather during harvest will play a major role in determining the price for those who sell direct from the field, points out University of Illinois grain marketing economist L. F. Stice.

Wet harvesting weather lowers wheat quality, makes it difficult to store and speeds up the movement into terminal markets. All these factors would tend to lower wheat prices.

Favorable weather at harvest could allow wheat to move to market without much price change. But poor harvesting weather and damaged wheat could depress prices for several weeks as it did in 1958, Stice points out.

Because of an active export trade in recent weeks, current wheat prices are about the same as last year, even though the crop is larger and the support price is lower. The Illinois crop is up one-fourth from last year, and total production is 16 percent larger. Current estimates place the 1960 wheat crop at 1,271 million bushels.

Total use for this year's crop is expected to be about 1,125 million bushels. The difference of 150 million bushels between use and supply will be added to carryover stocks and government inventories.

For wheat to move into the government loan, market prices must be under the loan rate minus storage costs, or net loan rate.

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Current bids for hard wheat in Illinois are about equal to the net loan rate, while soft wheat prices are 5 to 10 cents a bushel lower.

After harvest in recent years, Illinois wheat prices have risen 20 to 25 cents a bushel from the harvest low to the late winter or spring peak. Enough wheat will probably move into loan to cause a similar increase to occur during the coming marketing season, Stice believes. But the rise may be slower than in 1959, when a shorter crop and the lowering of freight rates gave the market a boost.

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7/5/60

NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Research Probes Corn Height

URBANA--How high corn is by the 4th of July has been the subject of lengthy study at the University of Illinois.

On every July 4th since 1936, corn height at the University's Morrow Plots has been measured by either G. H. Dungan or A. L. Lang, U. of I. agronomists.

Lang was out again with the yardstick in this 25th year of the project. Corn on one continuous corn plot averaged 51.6 inches.

Lang reflects that the corn was highest on this date in 1939, when it averaged 95.6 inches on a plot in a legume rotation. It was lowest in 1957, when the plants on a continuous-corn, no-treatment plot averaged 24 inches, dangerously close to a mere knee height.

In looking back over 25 years of data, Lang concludes that height of corn on the 4th of July signifies nothing--it has practically no bearing on final yield at least. About the only thing it influences is the behavior of some people.

Lang expects to be back again next year with his yardstick.

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7/7/60

FOR IMMEDIATE RELEASE

Heat Prostration of Dogs Due to Owner Oversight

URBANA--Dogs sometimes suffer severe heat prostration due to an oversight of their owners, says Dr. Erwin Small, University of Illinois veterinarian.

Owners may run their animals hard on a hot day. For a dog that is usually kept inside or is not conditioned for strenuous exercise, this may lead to heat prostration.

Sometimes a dog is shut up in a closed car that becomes an "oven" when the sun beats on it. Or the animal may be left in a closed, stuffy room with little food and water while the family takes a weekend trip.

Dr. Small says heat prostration is similar to heat stroke in people. The animal's heat control mechanism simply fails during temperature extremes. When this happens, the animal literally begins to cook inside.

Heat prostration strikes quickly, adds Dr. Small. Heavy, irregular breathing and possibly a blue tongue in animals with a normally pink tongue are the usual prostration signs. If they appear, soak the dog in a tub of cold water or a shower for 15 to 20 minutes. Then let a fan blow on the animal while it dries. To be on the safe side, have a veterinarian examine the animal.

Internal injury caused by heat prostration cannot be repaired, so prevention of this condition becomes all-important. Dr. Small recommends that pet owners always have water available for their dogs. If the animal is tied outside, make sure it can reach water and shade. Regular brushing for all dogs, and perhaps a trim for long-haired dogs, will help to keep them cool.

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7/7/60

FOR IMMEDIATE RELEASE

Show Cattle Worm Infestations Can Look Like Tampering

URBANA--University of Illinois veterinarians warn that a tiny, thread-like worm can produce lumpy, inflamed areas in the flanks and undersides of show cattle. These lumps can be mistaken easily for incisions or injections sometimes used to illegally alter the conformation of show animals.

The worms, called *Stephanofilaria stilesi*, can also produce lesions that look much like mange or ringworm.

These worm infestations have been fairly common in western states. Several cases were reported in show cattle exhibited at the 1948 Western Livestock Show in Los Angeles. At that time owners of affected cattle considered the lesions merely as blemishes that might affect the prize-winning ability of animals. The worms were also present in some animals at the 1959 International Livestock Exposition.

The U. of I. veterinarians say the skin of infested animals has an abnormal appearance that may raise the question of tampering. They recommend that cattle owners have a veterinarian carefully inspect all animals that are being fitted for show. If necessary, the veterinarian can recommend treatment with a chlorinated hydrocarbon preparation well in advance of the showing season.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Portable Walls Adapt Farm Buildings for Grain Storage

URBANA--A University of Illinois agricultural engineer has come up with a new way to adapt old farm buildings for grain storage.

Gene Shove says self-supporting portable walls may be the answer for converting such buildings as machine sheds, cattle sheds and garages to corn and small grain storage.

Self-supporting walls are made of two panels, braced together to form a large capital "L". The panels are made for use in pole frame, rigid frame or stud construction.

The portable walls are not attached to the buildings. Instead, they're held in place by the grain's weight.

Shove says the walls carry the entire grain load, while the building gives protection from the weather, rodents, birds and other grain-storage hazards.

For further information, write to the U. of I. College of Agriculture for the leaflet, "Self-Supporting Portable Walls for Grain Storage."

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7/11/60

FOR IMMEDIATE RELEASE

Show Cattle Health Regulations Listed

URBANA--Cattle exhibitors planning to join the show circuit should take a look at the "1960 Illinois Livestock Exhibition Regulations," says Dr. J. R. Pickard, University of Illinois extension veterinarian.

Exhibitors must observe these health regulations to protect their own and their neighbor's livestock.

The tuberculosis regulation states that Illinois cows, heifers and bulls must be "negative to test within 90 days of exhibition unless originating in an accredited herd, or originating in a negative herd and cattle for exhibition were negative to test within one year of exhibition."

The health requirements also state, "Females and bulls over six months old must be negative to brucellosis test within 90 days of exhibition unless from a certified herd."

Cattle exhibitors can also forego a brucellosis test if their animals can satisfy this three-step requirement: The animal comes "from a modified, certified, brucellosis-free area, the herd from which cattle originated had no reactors on the last complete herd test, and the animals for exhibition were negative to brucellosis test within one year."

Dr. Pickard adds that cattle under 36 months of age and officially calfhood vaccinated need not be tested within 90 days of the fair. But he points out, "No cattle infested with scabies mites shall be brought into or exhibited within the State of Illinois."

Cattle exhibitors should be familiar with all health requirements for their show animals. The Division of Livestock Industry, Illinois Department of Agriculture, will send copies of the exhibition regulations on request.

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7/11/60

FOR IMMEDIATE RELEASE

Health Regulations for Illinois Show Swine Listed

URBANA--The "1960 Illinois Livestock Exhibition Regulations" outline the required protection for show swine against hog cholera and swine brucellosis, says Dr. J. R. Pickard, University of Illinois extension veterinarian.

He says the regulations require that Illinois swine be vaccinated with "anti-hog cholera serum and virus or modified live virus vaccine more than 14 days prior to exhibition; or by serum alone method within 15 days prior to exhibition."

However, vaccination certificates will be accepted only for adult animals vaccinated with "live virus" cholera vaccine prior to June 30, 1957. Illinois law prohibits use of this vaccine after that date.

The regulations also specify that vaccination by Boynton tissue vaccine or crystal violet vaccine be done "not less than 14 days nor more than six months prior to exhibition, provided that pigs treated by either of these last two methods were at least eight weeks of age at the time of vaccination."

If swine are vaccinated by someone other than a licensed veterinarian, the owner must present an affidavit showing the date of vaccination, according to the regulations.

Brucellosis also requires special attention. "Illinois breeding swine, four months of age and over, for exhibition in the state shall also be accompanied by an official brucellosis certificate showing the swine to have been negative to the agglutination test for brucellosis conducted within 90 days before exhibition."

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7/11/60

FOR IMMEDIATE RELEASE

U. of I. Testing Dwarf Corn Silage as Cattle Feed

URBANA--Seven hefty beef bulls, standing knee deep in straw, quietly munched hay in the cool, airy barn.

One in particular stood out. A blocky summer yearling Angus, his coat gleamed as herdsman Don McMahan carefully brushed him.

"We're preparing these young bulls for sale," McMahan explained while giving a final polish to the bull's luxuriant coat. This particular one, Illini Bardo Liermere 20, weighed 1,030 pounds on his first birthday several days ago. He's still gaining three pounds a day on corn, oats, bran, beet pulp and hay.

All yearling bulls should weigh at least 1,000 pounds, we learned.

McMahan was showing us around the sprawling University of Illinois beef cattle farm. The University raises beef cattle of all three major breeds--Hereford, Angus and Shorthorn. Animal scientists use some 200 cows and calves and another 100 steers for classroom teaching and feeding trials.

McMahan dropped his brush to show us the steers. As we walked into the long steer feeding shed, the pungent odor of silage pricked our nostrils.

In the first pen, seven meaty-looking Herefords watched us with baleful eyes. They were serving as "guinea pigs" to determine the value of dwarf corn silage as a cattle feed.

So far these steers had been on feed 204 days. Each had gained an average of 2.31 pounds daily. Their ration? During the first

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part of the trial each steer received about 15 pounds of corn silage daily, plus vitamins and minerals. Then the steers began finding 1 1/2 pounds of soybean oil meal and 1 pound of hay mixed with the silage.

Their next-door neighbors, another group of Herefords, munched on regular corn silage. Considering that corn silage had been their main diet for 210 days, they didn't seem at all bored with it. After the 210 days, they also began receiving 1 1/2 pounds of soybean meal and 1 pound of hay plus the corn silage.

Research scientists are using these steers to determine how long steers can be fed corn silage for most economical gains.

Altogether some 10 groups of steers are on current feeding trials. Reports of these trials will be presented at Cattle Feeders Day September 2.

As we left, McMahan and John Cogswell headed for the "squeeze chutes." Four Polled Hereford steers patiently waited to have their heads clipped--one more of the never-ending activities at Illinois' beef cattle farm--for the state 4-H judging contest.

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7/11/60

NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Soybeans Due for Rot Resistance

URBANA--Commercial soybean varieties are due to get tougher against Phytophthora rot, one of the major soybean disease threats in Illinois.

Resistance is being built into several of the more important varieties for Illinois, according to R. L. Bernard, USDA plant breeder at the University of Illinois, who was one of the first in the state to work on the problem. He points out, however, that it will probably be several years befor farmers can buy the new seed.

Bernard has worked closely with U. of I. plant pathologists in studying the nature of resistance and its characteristics of inheritance. The fungus disease attacks soybeans in poorly drained, compact soils and is apt to be widespread in wet years, like this one, when many soils are water-logged.

Blackhawk is the soybean variety Bernard uses as the source of disease resistance. While Blackhawk itself is no longer recommended for Illinois, the anti-Phytophthora characteristics of its germ plasm are being incorporated into the newer varieties. Some of the new seed will be produced this summer and used in regional performance tests.

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RFH:mfb
7/14/60

FOR IMMEDIATE RELEASE

Lower Feed Cost, Less Death Loss
Explain Higher Hog Earnings

URBANA--Illinois record-keeping hog farmers averaged only $114 earnings for every $100 of feed used in 1959. But the top one-fifth of these farms earned $38 more for every $100 of feed fed than the low one-fifth.

From a farm business analysis report issued this week at the University of Illinois College of Agriculture, agricultural economists A. G. Mueller and D. F. Wilken point out several key differences in the high- and low-earning hog farms.

The high-earning farms farrowed about 55 litters compared with 46 on the low-earning farms. The top farms weaned about one more pig per litter. After weaning, the low farms lost seven more pigs than the top farms.

Feed costs played a major part in producing higher earnings. The top farms produced their hogs for $9.13 a hundred pounds, while feed costs on the low-return farms averaged $11.61. The lower feed costs were due to 60 pounds less grain and 20 pounds less commercial feed required for each 100 pounds of pork produced.

High-earning farms produced quality hogs and timed their sales to obtain an average price of $14.13 a hundred pounds compared with only $13.67 on the low-earning farms.

The above figures were computed from a sample of 649 hog farms farrowing at least 10 litters of pigs.

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HDG:mfb
7/14/60

FOR IMMEDIATE RELEASE

Lysine Does Not Improve Performance of All Cattle Rations

URBANA--A University of Illinois livestock specialist warns cattle feeders that adding synthetic lysine to rations does not improve the performance of all rations.

G. R. Carlisle notes that farm magazines recently reported that lysine boosts the performance of cattle fed certain rations. For example, lysine added to rations containing a high percentage of urea brings a favorable response.

Lysine does not, however, improve the performance of cattle fed rations containing natural sources of protein, such as linseed and soybean meal.

Lysine is one of several amino acids which are "building blocks" of protein.

Carlisle cites recent studies to back up his statements:

Two groups of cattle received similar rations except for the source of protein supplement. One group received a natural source containing no urea. The second received a supplement with 3.7 to 18.5 percent urea.

Cattle in the first group outgained the second group. And they utilized their feed much more efficiently.

Research workers next added lysine to the rations of both groups. Then each group gained about the same. Cattle in the first group, however, still used fewer pounds of feed for each pound of gain.

Carlisle also adds that at present prices synthetic lysine is too expensive to compete with natural protein sources in beef cattle rations.

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PAC:mfb
7/14/60

NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Valiant Two-Acre Corn Plot Works
for Production Record at U. of I.

URBANA--A two-acre plot of corn on the University of Illinois dairy farm is giving researchers more trouble than a two-acre plot should.

And it's all because an experiment is working out too well.

It began last spring when U. of I. dairy scientists drilled five bushels of seed into the two-acre plot. The plan was to test corn's worth as a quick-growing emergency forage and to see what effect such thick planting would have on the corn's feeding value.

On May 4 the scientists drilled the corn in rows only seven inches apart and waited to see what would happen as the little plot valiantly set out to push up more than 160,000 plants per acre.

What did happen? Well, first it rained--and the corn grew. Then it rained again--and the corn grew some more. In fact, it kept right on raining. And the corn kept right on growing.

When researchers checked it on July 13, the plants were more than eight feet tall--and still growing.

The scientists give an abundant supply of rain a lot of the credit for the corn's fantastic growth. But they have another explanation we like better.

They say it's highly possible that the plants are so close together that they're competing with each other for sunlight. Reacting

-more-

to some ancient law of survival, each stalk is doing its best to outreach its neighbor to keep from being shaded out.

Researchers doubt that the corn can ever do much boasting in the ear department. But it's going to be hard to beat for tons of forage produced. Latest estimates say the plot is likely to turn out more than 50 tons per acre.

The biggest problem lies in harvesting the jungle of green matter that's beginning to resemble the lushest part of the tropics.

Latest word has it that the problem still hasn't been solved, although harvesting ideas are flying fast and furiously.

What's the corn think of all this? Well, our guess is that it's too busy growing to care either way.

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HDN:mfb
7/18/60

FOR IMMEDIATE RELEASE

Agronomists Drill for Drainage

URBANA--Agronomists have drilled some deep, narrow holes in southern Illinois claypan and find that they enhance drainage.

The holes are 14 feet deep, 5 inches wide and spaced 20 feet apart. This rather new approach to hard-to-drain soils is under way at the University of Illinois Brownstown experiment field.

Although deep-hole drainage has given encouraging results, U. of I. agronomists C. K. Martin and A. L. Lang state in the summer issue of Illinois Research that "more work is necessary before we can make positive recommendations."

They say that several times during the past winter the water level in the area of the deep holes dropped as much as 20 inches within eight days after high-moisture conditions. The level dropped only 11 inches in an adjoining field identical except for the deep holes.

This spring the deep-hole plots were disked and seeded on April 8, only 10 days after complete saturation from spring thaw. Field work was delayed longer in nearby fields which in other years had been better drained. A tile line augments drainage in both the deep-hole and check fields.

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RFH:mfb
7/18/60

FOR IMMEDIATE RELEASE

John Kelly Wins Illinois Farm
Supply Scholarship to U. of I.

URBANA--John L. Kelly of Heyworth has been selected as the first winner of a special $500 scholarship to the University of Illinois College of Agriculture.

The award is the Fred E. Herndon Agricultural Industries Scholarship sponsored by the Illinois Farm Supply Company. It's presented in honor of Mr. Herndon, who served as the company's president for many years.

Assistant Dean C. D. Smith announces that Kelly will be a junior this coming school year. So far his grades average 4.147 out of a possible 5.000, which equals an "A." Kelly also has an excellent leadership record in many campus activities.

A 1958 graduate of Heyworth high school, Kelly is the son of Mr. and Mrs. Everette L. Kelly, R. 2.

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MM:mfb
7/18/60
NO

FOR IMMEDIATE RELEASE

(Note: See attached list for further information on people attending.)

Illinois Represented at Regional
Rural Development Meeting

URBANA--Twenty-nine persons, including several from the University of Illinois, are representing Illinois at a regional Rural Development Conference at Purdue University this week (July 19-20).

Four other states, Indiana, Iowa, Missouri and Ohio, will also be represented at the meeting.

Other Illinois organizations represented at the meeting include Southern Illinois University, FHA, SCS, IAA, U. S. Forest Service, Small Business Administration, Offices of Public Health, Education and Welfare, Social Security Administration, Commonwealth Edison, Illinois Home Bureau Federation and State Employment Service.

This meeting will cover the background of the rural development program and problems yet to be overcome. The session plans to outline a plan of attack that will help beef up the program in the five states represented by stimulating interest and pointing out how various agencies may contribute to the program.

The rural development program caught the nation's interest in a recent SATURDAY EVENING POST article, "The Plight of the Hill People."

The program is designed to upgrade farming, business and living conditions in selected counties through the south and midwest. It began several years ago on a limited basis. But now the U. S. Senate and House have increased funds so that the program can be intensified and expanded.

For the past three years one rural development man has worked in two southern Illinois counties. Since July 1 the program has been expanded on an area basis to include six more counties in that region. Additional staff will be employed to assist many other communities.

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PAC:mfb
7/18/60
NO

Illinois Representatives to the Purdue Rural Development Conference

1. W. G. Kammlade ---------- UI Associate Director of Agricultural Extension
2. H. H. Gordon ---------- UI Assistant State Leader of Farm Advisers
3. Miss Martha L. Dunlap ----- UI State Leader of Home Advisers
4. Miss Jeannette Dean ------- UI Assistant State Leader of Home Advisers

5. A. T. Anderson ---------- UI Specialist in Rural Community Development
6. Pauline Brimhall ---------- UI Home Economics Specialist in Health Education
7. H. G. Halcrow ---------- UI Department of Agricultural Economics Head
8. Stanley Ceglinski---------- UI Farm Adviser in Pulaski-Alexander Counties

9. C. L. Folse ---------- UI Specialist in Rural Sociology
10. G. C. Carter ---------- UI Division of University Extension
11. Dovie Younger ---------- UI County Agricultural Extension Councils Rep., Eddyville
12. Mrs. Irene Hoyt ---------- UI County Home Ec. Extension Councils Rep., Carbondale
13. Goffrey Hughes ---------- Southern Illinois Inc., Carterville

14. B. B. Clark ---------- Soil Conservation Service, Champaign
15. H. M. Haag ---------- UI Visiting Professor
16. George Reuss ---------- Farmers Home Administration, Champaign
17. Glenn Randall ---------- State Agricultural Stabilization and Conservation Committee, Springfield

18. Frank Kirk ---------- Southern Illinois University, Carbondale
19. O. Brissenden ---------- Illinois Agricultural Association, Chicago
20. Paul St. Amant---------- U. S. Forest Service, Harrisburg
21. Einar Johnson ---------- Small Business Administration, Chicago

22. Eric R. Baber ---------- Office of Education, Chicago
23. Miss Daphine Doster-------- Office Public Health Service, Chicago
24. Miss Rosella Hart --------- Social Security Administration, Chicago
25. V. M. Lund ---------- Old Age and Survivors Disability Ins., Lafayette, Indiana
26. Loren Trimble ---------- Commonwealth Edison, Chicago

27. Bishop Hill ---------- Old Age and Survivors Disability Ins., Harrisburg
28. Richard B. Calhoun -------- Illinois State Employment Service, Chicago
29. Mrs. Horace Smith --------- President, Illinois Home Bureau Foundation, Greenville

PAC:dl
7/18/60
NO

NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Research Into Industrial Uses for
Farm Surplus Will Take Time

URBANA--Research into greater industrial uses for farm products is one key to breaking down giant agricultural surpluses.

But it's wishful thinking to believe that research started now can find economic and new uses for all the grain presently stored under government loan, explains R. T. Milner, head of the University of Illinois Department of Food Technology.

Milner points out that, in the past, highly publicized "myths" about possible industrial farm product uses have stirred the public's imagination, only to fall through when actually tested. Early dreams of soybean plastics and power alcohol are classic examples.

It's mainly a matter of economics, Milner explains. At present corn, wheat and soybean prices are too high to offer a strong argument for their use in industry.

Until industry can count on at least $1.00-a-bushel corn and $.50-a-bushel soybeans, it will be difficult for these products to compete favorably with low-cost competitors.

But even in the light of these problems, many new ideas for farm product use in industry are showing promise for the future, Milner explains.

Large acreages of newly developed high-amylose corn, which compares in yield with present good hybrids, may soon be grown especially for industry.

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High-amylose starch makes strong, flexible, transparent films similar to cellophane. The films are grease resistant, edible and water resistant. And they can be made water resistant.

Ordinary cornstarch and its derivatives show promising industrial uses also. Milner estimates that the future may see starch from 100 million bushels of corn a year used economically in ore purification and other metallurgical uses alone.

Cornstarch may also find use in making paper. And, combined with cotton fiber, it may some day make clothing so cheap that homemakers will throw it away instead of washing it.

Milner says competition between farm products and synthetic products for present markets is becoming keener each year. New crease-resistant and wrinkle-proof cotton fabrics seem to offer advantages over synthetics. And tire cords made of improved cotton may soon be a reality.

In short, farm products can challenge other products for industrial use, Milner explains. And greater research into the problem will be the backbone of any progress that is made. But it's not something that's going to happen overnight.

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HDN:mfb
7/21/60

FOR IMMEDIATE RELEASE

U. of I. Large Animal Clinic Serves All Livestock Owners

URBANA--Dr. T. N. Phillips pushed two jawbreaker-sized, 60-grain aspirin tablets into the mouth of a quarter-horse filly. He used a balling gun that places the aspirin where the horse must swallow them.

The filly, recovering from surgery to remove a horn tip left by an angry cow, hadn't read the rule book. She coughed up the tablets, chewed them thoughtfully and then nuzzled for more.

We watched as Dr. Phillips quietly worked his way down the line of stalls at the University of Illinois large animal clinic. He examined each animal closely, sometimes changing a dressing or giving an injection.

Members of the clinic staff serve all Illinois livestock owners. They perform both emergency and planned surgery and deal with reproductive problems and diseases of all types. They also train veterinary medical students who locate throughout Illinois after receiving their D.V.M. degrees.

We remarked that the clinic was treating many horses. Dr. Phillips agreed: "This time of year the clinic always fills with standardbreds, quarter horses, ponies, thoroughbreds and an occasional draft horse. Many horses received during spring and early summer are mares with post-foaling problems. Now we're getting some that have lost a bout with barbed wire."

The veterinarian continued: "Barbed wire can disable a horse for six months if it's badly cut around the legs. When a horse gets

-more-

fouled in wire, it gets excited and forgets about pain. It thrashes and fights to get out, and sometimes almost takes off a leg in getting free.

Pointing to the hobble marks on the forearms of a standard-bred, he said, "There's a pacer. With the summer trotting and pacing season here, we're getting horses that hurt themselves by over-reaching with a hind leg, cutting a front leg tendon."

We observed that each animal reacted differently to the veterinarian. Dr. Phillips agreed: "All animals have personalities, and some even have vices. Some horses 'stall weave.' They plant all four feet and rock gently from side to side. Still others stand with one rear hoof on the opposite rear ankle, skinning it and sometimes causing an open sore."

"Some of their actions carry a message," he continued. A tail-rubber may have pinworms or perhaps a skin disturbance around the tail head. Then, too, there's the cribber or windsucker. He clamps his teeth on a box-stall sill, arches his neck and sucks air into his stomach. As a result, he won't eat much and doesn't put on weight."

While backing a horse to the far side of a stall, Dr. Phillips said, "Of course, you also have some horses that are just plain silly." Releasing the halter, he moved swiftly from the stall as the horse angled for a kick, adding, "And then you have some that just try to kill you."

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WDR:mfb
7/21/60

FOR IMMEDIATE RELEASE

Turfgrass Field Day To Feature Crabgrass Control Methods

URBANA--"Darned crabgrass!" mutters a disgruntled home owner. "If it would only curl up and die."

Other home owners feeling the same way might pick up some valuable tips on crabgrass control at the Illinois Turfgrass Field Day Wednesday, July 27. It will be held at the University of Illinois Drug and Horticultural Experiment Station in Downers Grove and at the Morton Arboretum, Lisle.

This field day, open to the public, is sponsored by the Illinois Turfgrass Foundation in cooperation with the U. of I. and the Morton Arboretum.

The morning program gets under way at 10 a.m. in the Arboretum's Thornhill Building. Two of the morning speakers include I.T.F. President Ben Warren and L. B. Howard, U. of I. College of Agriculture Dean.

The afternoon program should prove the most interesting to the general public. From 1 to 5 p.m., guests can tour the Arboretum and the Experiment Station, as well as the Vaughan Seed Company plots at the McCormick Gardens, Wheaton.

Visitors can inspect research plots that show results of various rates of seeding, crabgrass control, fertilization methods, seed mixtures and sodding versus seeding. They can also see different varieties of grass being tested.

Persons planning to attend the entire day's program should take their lunch.

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PAC:mfb
7/21/60
NO

FOR IMMEDIATE RELEASE

Suggests Mosquito Control in Farm Ponds

URBANA--Whack! Swat! "Drat it, I missed him."

This summertime comment is typical on many mosquito-infested farms, especially those with lovely, cool ponds. Such ponds can harbor thousands of mosquitoes, warns Steve Moore.

Moore, entomologist with the Illinois Natural History Survey and the University of Illinois, suggests that farmers can treat their ponds with larvacides if mosquitoes are causing trouble.

For ponds without fish, use a 1 percent concentration of DDT, chlordane or toxaphene. Or use a 1/2 percent concentration of dieldrin, lindane or malathion.

For best results, dilute the chemical with fuel oil, diesel oil or kerosene. Apply 10 quarts of total spray for each acre of water.

Farmers lucky enough to have fish in their ponds should use pyrethrins. Buy a pyrethrin material labeled "for use as a killer of mosquito larvae." Mix according to directions, and apply about 10 quarts of spray per acre.

As added protection, farm families might try "DET." DET, which stands for diethyltoluamide, is one of the best mosquito repellents on the market.

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PAC:mfb
7/20/60
NO

FOR IMMEDIATE RELEASE

Safety Week Stresses Many Farm Hazards

URBANA--This week, July 24-30, is National Farm Safety Week. But it's up to farm families to practice safety 365 days a year, emphasizes O. L. Hogsett, University of Illinois safety specialist.

It's the whole family's job to keep alert for hazards. They need to quiz themselves about hazards that may be found on the farm, in the home, on the highway or in recreational activities. They must especially watch for hazards around machinery and unsafe climbing devices, the two most common areas of farm work injury.

Accidents take about 14,000 lives among farm residents each year. More than a million farm residents are injured. In fact, farming claims more "on-the-job" deaths than any other major industry, reports Hogsett. This points out the need for strong accident-prevention efforts among all farm people.

The theme this year is "Enjoy Farm Life--Practice Safety." This clearly indicates that safety doesn't happen--it must be planned.

Planning for greater safety on your farm may be the most important planning you ever do.

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OLH:mfb
7/20/60
NO

NEWS FROM AGRICULTURE
UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Foreign Soil Scientists Plan Illinois Farm Tours

URBANA--Some of the world's top soil scientists will tour Illinois farms and examine its soils during mid-August. They will be part of the group attending the International Soil Science Congress in Madison, Wisconsin, from August 15 to 23.

Russell Odell, University of Illinois scientist, reports that two tours are planned.

About 125 persons will tour central and northern Illinois from August 11 to 13. During this time they will visit the agronomy research farm at Urbana and make a special tour around Vandalia and Effingham to see the Brownstown experiment field and farms in that area. The next day they will leave for Madison, Wisconsin, stopping near Colfax and at Starved Rock State Park.

During this tour the Illinois hosts hope to show how research is conducted at the central experiment station at Urbana and how the findings are tested on the Brownstown experiment field and conveyed through the Extension Service and other organizations to farmers who put the results into use to raise their living standards.

On the Effingham county farm to be visited, the owner-operator has built up the fertility of his soil, raised his crop yields and built a new farm home for his family.

A second tour in western Illinois is scheduled from August 24 to 26. About 75 foreign visitors will examine soils around Mt. Carroll and stay overnight in Monmouth. The next day they will visit the Old Tom Creek watershed in Warren and Henderson counties. Soil Conservation Service staff members will show how a conservation program has been established in an entire watershed.

The group will move south to New Salem State Park and spend the night in Springfield. After studying soils around Morrisonville and Belleville, they will move across the Mississippi river at Chester and proceed west to study soils and agriculture in the southwestern United States.

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HDG:mfb
7/25/60
NO

FOR IMMEDIATE RELEASE

U. of I. Working on Firmer, Yet Well-Colored Tomatoes

URBANA--A research program designed to help put firmer, yet well-colored tomatoes on the market has swung into action again this summer at the University of Illinois.

This is not as easy as it sounds. Horticulturist J. P. McCollum says that the key to producing such tomatoes depends a lot on storage temperatures. The best temperature for developing a uniformly red color is 68 degrees. But tomatoes soften more quickly at this temperature than at lower readings.

Softening, as all consumers know, is not desirable. It usually makes tomatoes over-ripe by the time Mrs. Homemaker carries them home.

Low temperatures slow softening, but also slow color development. A temperature of 55 degrees has proved fairly satisfactory for storing tomatoes. But McCollum is working to find more satisfactory temperatures.

Last year he tested the theory that low temperatures temporarily stop ripening but do not damage the ripening mechanism. So immediately after tomatoes were stored, he dropped temperatures to 35 and 45 degrees.

He removed the tomatoes from storage after a certain length of time. The tomatoes were then supposed to finish their coloring process. But they fell down on the job.

This year McCollum is switching the arrangements. Before storing tomatoes, he'll hold them at 65 degrees so they will develop a uniform red color. Then he'll ease the temperature down to 35 and 45 degrees. This should stop softening.

The crucial test comes after the tomatoes are removed to room storage. McCollum hopes they will keep satisfactorily until the time they would ordinarily "reach the market."

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PAC:mfb
7/25/60

FOR IMMEDIATE RELEASE

Note to Editors: Attached is a complete list of students winning Sears Roebuck Foundation scholarships. Select from it the students from your area.

Area Student Receives U. of I. Scholarship

URBANA--Sixteen freshmen planning to enter the University of Illinois College of Agriculture this fall have been awarded $300 Sears Roebuck Foundation scholarships.

_____ from _____ has been named as one of these outstanding students, announces assistant dean C. D. Smith. He explains that the scholarships are awarded on the basis of scholarship, leadership, promise of superior attainment and financial need.

All winners of these freshman scholarships are eligible to compete for national awards next year. Winner of the top national scholarship receives $1,000. The next three pay $500 each, and the next four pay $250 each.

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7/26/60
NO

STUDENTS RECEIVING SEARS ROEBUCK
FOUNDATION SCHOLARSHIPS
TO THE UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE

Name

Michael F. Campbell
516 South Park
Marissa, Illinois

Dorothy Ann Cole
Smithshire, Illinois

Gale W. Croon
R. R. 1
Nokomis, Illinois

Edwin L. Davis
R. R. 6, Box 54
Decatur, Illinois

Jean Marie Douglas
R. R. 1, Box 100
Tennessee, Illinois

Jean Ann Dunphy
816 N. Worth
Sullivan, Illinois

Terry O. Harrmann
R. R. 3
Sullivan, Illinois

Jimmie D. Harrold
R. R. 1
Waynesville, Illinois

Name

Russell L. Higgins
R. R. 2
West Salem, Illinois

Rodney Lindgren
Orion, Illinois

Denzil V. Marten
Lincoln, Illinois

John F. Marten
Raymond, Illinois

Albert P. Peters
Fowler, Illinois

Christian Scherer
R. R. 4
Olney, Illinois

David J. Schingoethe
R. R. 1
Sugar Grove, Illinois

Richard G. Wagner
R. R. 4
Morris, Illinois

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MM:mfb
7/26/60
NO

NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

U. of I. Ag Graduates Average $4,950

URBANA--Beginning salaries for University of Illinois agricultural graduates in June average $4,950, announces Warren Wessels, College of Agriculture assistant dean.

The salaries ranged from $4,000 to $6,000 annually, with the majority between $4,500 and $5,500.

Wessels reports that the demand for agricultural graduates continues to increase. He says, "Those students who have completed their military obligation have little trouble in finding good jobs."

The college graduated 121 students this past June. This figure does not, however, include home economics graduates.

Of the 121 students, 28 percent are continuing their studies for advanced degrees. Another 25 percent are fulfilling their obligation to Uncle Sam.

Twelve percent are beginning to carve out careers in agricultural business and industry. They have taken jobs in such fields as farm equipment sales, grain elevator management, food merchandising, floral and dairy plant management and commercial seed corn production.

Some 11 1/2 percent have started farming, while another 11 1/2 percent are working as vocational agriculture teachers or assistant farm advisers.

Six percent have taken jobs as USDA livestock marketing specialists, as herdsmen or with the Crop Reporting Service, SCS and Food and Drug Administration.

The final 6 percent had not chosen jobs when the graduates were surveyed.

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PAC:mfb
7/28/60

FOR RELEASE AFTER AUGUST 2, 1960

Glycine Added to Certain Rations Improves Chick Growth

DAVIS, CALIFORNIA--Poultrymen can improve chick growth by adding the amino acid glycine to certain rations, University of Illinois poultry scientists revealed this week (August 2-5).

They announced their finding before the Poultry Science Association's annual meeting at the University of California.

H. N. Waterhouse reported that they added glycine to rations containing 20 percent protein from casein, isolated soybean and sesame meal. The glycine significantly increased the growth of chicks receiving the casein and isolated soybean sources of protein.

Glycine did not, however, improve the growth of chicks fed sesame meal protein.

The levels of glycine added made up 1.0, 2.0 or 4.0 of the total ration. Chicks received these test rations from 7 to 21 days of age.

Waterhouse and his colleagues also investigated the amount of glycine that chicks need in relation to the ration's protein level. They found that the glycine requirement decreased strikingly as the protein level increased.

For example, they fed chicks a 24 percent protein level that was supplemented with either 2 or 4 percent glycine. These chicks grew just as fast as chicks receiving 36 percent protein from casein, with or without supplemental glycine.

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PAC:mfb
7/28/60

FOR RELEASE AFTER AUGUST 2, 1960

Temperatures Can Influence Egg Production

DAVIS, CALIFORNIA--University of Illinois poultry researcher Donald J. Bray reported this week (August 2-5) that air temperatures influence egg yields indirectly.

Bray further explained that temperatures influence egg yields by affecting the amount of protein that pullets consume. He spoke before the Poultry Science Association's annual meeting at the University of California.

He conducted this study by housing pullets in temperature chambers over an eight-week period. Some pullets were kept at a 42-degree temperature while others stayed at 76 degrees.

All pullets received a corn-soya diet. The levels of protein were 6.5, 7.75, 9, 10.25, 11.50 and 15 percent. Bray tested each level of protein at both temperatures.

He maintained a 45:55 ratio of corn to soybean protein by altering the levels of corn and soybean meal proportionately to change protein levels. This maintained a constant protein quality.

Results revealed that birds fed diets containing less than 15 percent protein produced more eggs when kept at 42 degrees than at 76 degrees. This probably happens because pullets kept at lower temperatures consume more feed and thereby more protein.

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PAC:mfb
7/28/60

FOR RELEASE AFTER AUGUST 2, 1960

Chicks Definitely Require Proline in Rations

DAVIS, CALIFORNIA--University of Illinois poultry scientists announced this week (August 2-5) that proline should now be considered an essential amino acid for poultry.

Speaking before the Poultry Science Association's annual meeting at the University of California, D. E. Green reported that proline had previously been considered a non-essential amino acid.

Amino acids are the "building blocks" of protein.

Recent Illinois tests indicated that adding proline to rations increased gains, feed efficiency and nitrogen retention. Including proline as a mere .5 percent of the total ration brought these favorable results.

In the same series of tests, the U. of I. scientists also investigated three more non-essential amino acids: serine, alanine and aspartic acid. Adding these amino acids to rations did not, however, improve the chicks' performance. Therefore they are still considered non-essential amino acids.

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NEWS FROM AGRICULTURE
UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

U. of I. Cattle Feeders Day Slated September 2

URBANA--The University of Illinois College of Agriculture announces that its annual Cattle Feeders Day will be held Friday, September 2.

More than 1,000 persons are expected to attend this event, which attracts cattlemen from all over the state and from surrounding states as well.

The program gets under way at 10 a.m. CDT with tours of the beef cattle barns. Visitors can study feeding trials in progress and look over the University's purebred beef cattle.

During the noon hour a barbecue lunch will be served in the Stock Pavilion.

At 1:15 the afternoon program begins with reports of several major research studies completed this past year.

L. H. Simerl, U. of I. agricultural economist, will discuss the beef cattle outlook. And W. C. Whetsell, an Oklahoma rancher, will wrap up the afternoon program with "A Rancher's Look Into the Future."

All interested persons are invited to attend.

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PAC:je
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NO

FOR IMMEDIATE RELEASE

Release New Book of Sheep Equipment Plans

URBANA--The Mid-West Plan Service has released another in its series of equipment plan books for livestock growers--this one written especially for sheepmen.

University of Illinois ag engineer Don Jedele says the book contains more than 80 plans and diagrams representing the latest ideas in homemade sheep equipment.

Typical plans in the book include sorting and loading chutes, self-feeders, waterers, lamb bunks and creeps, stock guards, corrals and portable dipping vats.

As an added feature, the book also gives a number of feedlot layouts designed for top sheep production efficiency.

The sheep equipment book is the third in a series of equipment plan books for livestock owners. Other plan books are available on swine and beef and dairy equipment.

The books sell for $1.00 each. You can get copies from your county farm adviser or from the University of Illinois Department of Agricultural Engineering in Urbana.

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8/3/60
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FOR IMMEDIATE RELEA

Farm New Book of Sheep Equipment Plans

URBANA--The Farmers Plan Service has released another in i
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The sheep equipment book is the third in a series of equipm
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swine and beef and dairy equipment.

The book is sell for $1.00 each. You can get books from you
ty farm bureau or from the University of Illinois Department of
griculture Communications in Urbana.

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FOR IMMEDIATE RELEASE

New Control for Face Flies Approved

URBANA--W. N. Bruce of the Illinois Natural History Survey has announced that a new control for face flies has been approved.

Farmers should welcome this announcement because face flies are currently a serious livestock pest.

The new control is actually a bait which Bruce, an entomology researcher, has developed. The bait consists of approximately 75 percent corn syrup, 25 percent water and 0.2 percent DDVP.

Bruce recommends applying the bait every morning for two weeks. Apply it to the foreheads of cattle and horses with a single stroke of a small paint brush. Make the stroke about six inches long. After the initial two-week period, apply the bait only when necessary.

When flies feed on this bait, they die and drop off within 40 seconds. Then other flies pestering the animal's eyes and nostrils move up to the bait and are killed in rapid order.

Farmers can buy DDVP at agricultural supply companies. To prepare one gallon of bait, Bruce advises mixing 1/3 ounce of DDVP with the corn syrup and water mixture.

Face flies hit Illinois livestock for the first time last summer. Until now, insect specialists have recommended repellent sprays for dairy cattle and backrubbers for beef cattle.

Research tests, however, show that the bait is much more effective. Before too long, commercial preparations of the bait will probably be available.

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FOR IMMEDIATE RELEASE

Landlords and Tenants Like Present Leases

URBANA--Landlord and tenant relations on east-central Illinois farms are generally satisfactory, a recent University of Illinois survey shows. Among those who answered a question about changing their present leases, 71 percent expressed satisfaction or further explained their lease arrangements. Only 29 percent suggested changes.

F. J. Reiss, agricultural economist in charge of the study, reports that, for every farm in this area with a livestock share lease, there were seven with crop-share or crop-share cash leases. But more suggestions were offered for changing the livestock than the crop-share leases. The reason is that livestock leases are more complex and the landlord and tenant must share costs for a greater number of items.

More than twice as many tenants as landlords made suggestions for changing their leases. Generally the tenants wanted the landlords to share more of such costs as combining, hauling grain, shelling and combining corn in the field, crop drying, applying fertilizers, legume and grass seeds, and fuel costs with livestock leases.

Tenants wanted more written leases, particularly with elderly landlords whose farms might be involved in estate settlements. They preferred five-year leases. But they were not particularly unhappy with one-year leases if they were automatically renewable and provided for a termination notice of six months or more.

Both tenants and landlords recognized the importance of having a mutual interest in the farm business. Some tenants believed that, if

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the landlord employed professional farm management services, it would benefit them through greater use of fertilizers, more adequate buildings and higher quality seed.

Few tenants asked for a reduction in cash rent. But landlords felt that they must have higher cash rents to offset high taxes. Some tenants said they would prefer to make more of their own improvements than pay higher rents, provided they had adequate reimbursement guarantees if they should leave the farm. Since fertilizer can't be removed after it is applied, tenants made a special plea for reimbursement arrangements on costs of this kind.

Good lease forms, such as the ones prepared by the University of Illinois, spell out the answers to many of the questions on which landlord and tenant should agree, Reiss points out. They can go a long way toward improving what already appears to be a very satisfactory land tenure system in Illinois, he concludes.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

"Planned Parenthood" Will Help Farmers Schedule Farrowings

URBANA--If University of Illinois animal scientists have continued success with a current experiment, "planned parenthood" may reach into the barnyards of America.

These men are developing methods whereby they can slyly control the breeding dates and consequently the birth dates of farm animals. "The results of controlled breeding offer farmers a multitute of advantages," says Philip Dziuk, animal physiologist who's spearheading the work.

He cites these examples:

1. Farmers could plan livestock births for a restricted period of time. This would eliminate random births over a long period. For example, at least 21 days are necessary for 30 bred gilts to farrow. By controlling the breeding date, however, farmers can plan on farrowing 30 gilts over a five-day period.

2. Groups of offspring would have a more uniform size--making them easier to handle, feed and sell. "Imagine the advantages a farmer would have if he could guarantee a certain number of market animals of the same age on the same date!" exclaims Dziuk.

3. Farmers could plan their breeding programs so that offspring would be ready for market when seasonal prices are highest.

Dziuk reports that poultry producers can already regulate chick hatchings to utilize these advantages. But a successful and practical method for larger animals is still in the experimental stage.

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To control breeding among several females, the farmer must first synchronize their heat periods. Then the animals breed, ovulate and produce young at the same time.

In order to synchronize heat periods, Dziuk and his co-workers are testing a hormone and artificial light.

So far the hormone treatment shows the most promise. Dziuk is using one of several progestins. These are female sex hormones secreted during pregnancy and when the animal is not in heat. One might logically ask, "How does it synchronize heat if it keeps animals out of heat?"

Dziuk merely injects all females in a group every day for a week or so. This keeps the females out of heat. Then he stops the hormone injections. About four days later, most treated animals come into heat and ovulate.

The work of injecting animals daily, however, makes this method too costly and cumbersome for the average farmer. Besides, the animals begin to feel like pin cushions.

So Dziuk tried another method--mixing the hormone with the animals' feed. Animals to be bred receive treated feed for so many days. Then they return to a normal diet. Within a few days they come into heat, mate and ovulate.

Results so far have caused smiles of encouragement even though mice are serving as "guinea pigs" for much of the preliminary work. About 70 percent of the mice tested have mated and conceived on the expected days. And their litters have been normal, indicating that the treatment did not interfere with normal reproduction.

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Several trials with 100 hogs have also triggered smiles. But results have not been as consistent as those with mice. About 60 percent of the treated gilts came into heat and mated on the third, fourth or fifth day after treatment stopped. Some 20 percent came into heat later, and the other 20 percent suffered from side-effects.

Gilts allowed to farrow produced litters of normal size. In one group of 10 gilts, seven farrowed in a 48-hour period on a Monday and Tuesday. This serves as a reminder that midweek farrowings will be an extra bonus if the treatment can be perfected.

Howard Brinkley, a graduate student in animal science, has tested the "artificial light" method of regulating breeding. Poultrymen already use light to control chick hatchings and egg laying. Using mice, Brinkley designed his study around the theory that mice mate and ovulate in darkness only.

He therefore used artificial lighting to regulate daylight and darkness to control their breeding. The results showed some promise. But hormones seem to have more immediate future for controlling large-animal breeding.

Dziuk feels that the hormone treatment has already reached a certain stage of success. When the wrinkles are ironed out, planned parenthood in the barnyard will be a tremendous boon to the nation's livestock producers.

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FOR IMMEDIATE RELEASE

Favorable Conditions Produce Near-Record Oat Yields

URBANA--Nearly ideal conditions produced some of the highest oat yields ever recorded on the University of Illinois agronomy farm this year. And this occurred despite a moderately late seeding date--the second week of April.

Agronomist L. B. Miller reports that several rotation plots produced oat yields of over 100 bushels an acre. Even a limed, but otherwise untreated corn-oats-alfalfa rotation plot produced an 80-bushel yield.

Miller explains the extremely high yields in this way: May and June weather in central Illinois was much like that in the ideal oat-producing areas of Wisconsin. Cool weather along with abundant rainfall and a lack of diseases and insects joined together to make ideal growing conditions.

Although some plots had more fertility than others, this variation did not seem to cause the usual yield differences. The ideal weather produced very favorable yields on plots with only moderate fertility, Miller reports.

Research work in progress on the University of Illinois Agronomy Farm will be displayed at the annual Agronomy Day September 14 at Urbana. At this time, research in corn and soybeans will receive special emphasis. All interested persons are invited.

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Ideal Conditions Produce Record-Breaking Yields

Ideal -nearly ideal conditions prevailed over most of the Illinois corn belt provided on the University of Illinois experimental farm. And this combined design a phenomenally late spring during the first week of April.

Agronomist L. E. Miller reports that several varieties given ideal yields in excess of 100 bushels an acre. With a lower, yet very satisfactory cross-crop-utility rotation plot produced an yield.

Miller explains the extremely high yields in this way: "The weather in central Illinois was very like that in the ideal producing areas of Minnesota. Cool weather favored early growth and a lack of diseases and insects (pests) combined to make ideal conditions.

Although some plots had been fertilized that year, only very little did not seem to make the usual yield difference. The ideal for producing very favorable yields on plots with only moderate fertility, Miller concerts.

Addition work in progress at the University of Illinois during this year will be concluded at the annual Farmers Day September 14 at Urbana. At this time, research in corn and soybeans will receive special emphasis. All interested persons are invited.

FOR IMMEDIATE RELEASE

Farmers Can Use Two Programs to Raise Healthy Swine

URBANA--Swine farmers can cut their largest single production cost--diseases--by raising hogs under one of two programs.

The first is the Specific Pathogen Free (SPF) swine program which produces stock commonly known as "disease-free" hogs. The second is the Illinois Swine Herd Health Certification program.

In the SPF program, veterinarians prevent transmission of disease between the sow and litter by using surgery to take the litter. Young pigs taken by surgery and raised in isolation are free from atrophic rhinitis, TGE, swine dysentery, virus pneumonia and external parasites.

Six Illinois veterinarians are now equipped to produce these animals. Hog producers interested in SPF stock can contact their local veterinarian or Dr. J. R. Pickard, University of Illinois College of Veterinary Medicine.

The Illinois Swine Herd Health Certification program has been operating for four years. This program is a cooperative effort of the Illinois Swine Herd Improvement Association and the Illinois State Veterinary Medicine Association.

Its object is to certify hog breeders who take special precautions to raise healthy animals. So far the association has certified 17 Illinois breeding herds.

To have herds certified, producers must submit their hogs to a series of tests and inspections. Veterinarians are assigned to test

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breeding herds twice for brucellosis 30 to 60 days apart. During the first visit the veterinarian checks the herds for diseases or abnormalities. He also collects blood samples to test animals for leptospirosis.

After the initial series of tests and inspections, producers have their herds checked twice a year. The herds are also tested annually or vaccinated twice a year for leptospirosis.

For information regarding the Illinois Swine Herd Health Certification program, write to Fred Hoppin, Illinois Swine Herd Improvement Association, Landauer Building, Lincoln, Illinois.

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EXCLUSIVE

RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

FOR IMMEDIATE RELEASE

Skimping on Fortification of Hog Rations Doesn't Save Money

Some hog producers mistakenly try to cut ration costs by skimping on vitamins, minerals and antibiotics.

This practice actually costs more money in terms of reduced gains, warns _____ _____, University of Illinois farm adviser in _____ county.

Producers can save money by getting the grain and protein supplement at a good buy--not by skimping on the other ingredients, which cost relatively little. This is true whether the ingredients are purchased in a commercially mixed protein supplement or are bought separately and blended on the farm.

_____points out that soybean meal is a commonly used protein supplement. Although it contains an adequate balance of amino acids, it is low in several vitamins and minerals that hogs need. Adding these items, plus antibiotics, to a mixture of corn and soybean meal will greatly improve the performance of hogs receiving the ration.

Hog producers will get poor performance if they neglect any needed nutrient required by hogs.

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Some hog producers mistakenly try to cut ration costs by
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, it is low in several vitamins and minerals that hogs need. Add-
these items, plus antibiotics, to a mixture of corn and soybean meal
greatly improve the performance of hogs receiving low ration.

Hog producers will get poor performance if they neglect any
d nutrient required by hogs.

FOR IMMEDIATE RELEASE

Flies Troubling County Livestock

Flies are severely annoying cattle, horses and other livestock, reports _____ _____, the University of Illinois farm adviser in _____ county.

If flies are not controlled, they can drastically reduce milk production and beef cattle gains, warns _____. They also spread diseases.

Face flies are particularly troublesome now. These flies are aptly named, for they cluster around the animals' eyes and nostrils. Although they resemble house flies, they are somewhat larger.

To control face flies, use a bait containing 75 percent corn syrup, 25 percent water and 0.2 percent DDVP. Commercial preparations of this bait are available at agricultural supply companies. Commercial preparations of face fly repellents are also available.

Horn flies, stable flies, house flies and horse flies are also troubling livestock. Good sanitation and cleanliness are the key to successfully controlling house flies. Insecticides, of course, are extremely effective against all flies. Which one to use depends on the type of fly causing the most damage.

A repellent containing tabutrex or R-326, however, should control all species of blood-sucking flies on cattle. Apply with a hand sprayer or with an automatic treadle sprayer.

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FOR IMMEDIATE RELEASE

Troublesome insect flies

Flies are generally annoying pests. Horses and other livestock are _____ _____ the University of Illinois Farm Advisor _____ County.

If flies are not controlled, they can drastically reduce milk yield, and their constant pestering, makes _____. Insecticides speed up.

These flies are particularly troublesome now. These flies are mainly, for instance, attracted to the natural odor and moisture of their resemble house flies. They are "bloodsucker" flies.

To control face flies, use a spray containing 1% methoxychlor, 2% piperonyl sulfoxide and 0.1 percent rotenone. Commercial preparations are also available at agricultural supply companies. Instructions of how to use for repellents are also available.

Face flies, stable flies, horse flies and deer flies are annoying livestock. Good sanitation and cleanliness are the key to fly control. Insecticides, of course, are necessary to control flies. Spray mixtures on the animals by covering the most damage.

A repellent containing methoxychlor or R-326, however, should be used against all species of blood-sucking flies on cattle. Apply with a sprayer or with an automatic insecticide dispenser.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR RELEASE SATURDAY, AUGUST 13, 1960

Name Claar Associate Director of Agricultural Extension

URBANA--Dr. John B. (Jack) Claar, administrative field representative for the Federal Extension Service in Washington, D. C., will become associate director of the University of Illinois Agricultural Extension Service effective September 1.

His appointment will be submitted to the University's Board of Trustees at their September meeting by President David D. Henry upon the recommendation of Dean and Director Louis B. Howard of the College of Agriculture.

Dr. Claar will take over the duties of Dr. William G. Kammlade who has served as associate director since 1949 and who retires from that position on August 31.

As associate director, Dr. Claar will work with Dean Howard in administering the off-campus agricultural and home economics extension program in Illinois.

Illinois has one of the largest state extension services in the United States. It comprises a state staff of more than 100 technical subject-matter specialists and administrative personnel and more than 300 county agricultural and home economics advisers who are located in every county of the state.

A native of Watson, Illinois, Dr. Claar attended Blackburn College from 1940 to 1942, served in the U. S. Air Corps from 1943 to 1945, and graduated in agriculture from the University of Illinois in

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1947. He received his master's degree from the University in 1948 and his Ph.D. degree in 1959.

A recognized authority in the field of agricultural economics and farm management, he worked with the Sangamon Valley Farm Bureau Farm Management Service from 1947 to 1951, when he was appointed to the College of Agriculture staff as farm management specialist and state leader of Farm Bureau Farm Management fieldmen. In 1955 he was named chief of the farm management extension branch of the Federal Extension Service in Washington and was appointed administrative field representative of the Federal Extension Service in 1958.

In recommending Dr. Claar's appointment, Dean Howard commented that "the University of Illinois and its College of Agriculture is extremely fortunate in finding an associate director who thoroughly knows and understands Illinois agriculture, who combines high educational achievement with practical field experience, and who has had broad administrative responsibilities at both state and federal levels of agriculture."

At the same time, Dean Howard paid special tribute to Dr. Kammlade for his 45 years of service to the College of Agriculture. The retiring associate director first joined the college staff in 1915. He served as head of the sheep division of the department of animal science from 1921 until 1949, when he was appointed to his present position. In addition to his work in extension administration, Dr. Kammlade has been widely recognized for his work as chairman of the committee in charge of the University's 5,000-acre Dixon Springs Experiment Station in southern Illinois.

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FOR IMMEDIATE RELEASE

Soybean Diseases Not Serious: Much Late Planting

URBANA--The 1960 Illinois soybean crop is generally not affected seriously by diseases at this time.

This is the conclusion reached this week by D. W. Chamberlain, plant pathologist with the U. S. Regional Soybean Laboratory at the University of Illinois. He has just completed a survey of the soybean crop throughout the state to note the diseases that are present and to determine how serious they are.

Chamberlain reports that scattered fields are infested with Phytophthora rot. Some fields were hit seriously by this disease early in the season, and some farmers replanted. At this time the disease seems to be present only in scattered fields, and when it is present not more than two or three percent of the plants are infected. Harosoy beans are generally the most seriously affected variety under field conditions.

A considerable amount of late planting seems to be a more serious threat to soybean yields than diseases this year, Chamberlain believes.

Soybeans infected with various diseases will be displayed at the University of Illinois on Agronomy Day, September 14, at the Agronomy Research Farm at Urbana. Beginning at 9:30 a.m., tours will cover 18 different locations to show the latest crop and soil research. Lunch will be served at noon.

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FOR RELEASE AUGUST 16,1960

Report Progress Against Anaplasmosis

DENVER--A University of Illinois scientist reported progress against anaplasmosis, a cattle disease that kills by destroying the red blood cells, at the 97th Annual Convention of the American Veterinary Medical Association today.

Dr. Miodrag Ristic of the College of Veterinary Medicine identified the anaplasmosis organism as a rickettsia. Organisms in this group are smaller than bacteria, but larger than viruses. Other infectious rickettsia cause such well known diseases as typhus fever, Rocky Mountain spotted fever and Q-fever.

Anaplasmosis is an important cattle disease in the southern half of Illinois and in most southern states. However, it has been diagnosed in every state and causes annual livestock production losses estimated at 3.4 million dollars and death losses estimated at 3.5 million dollars.

Long interested in anaplasmosis, Dr. Ristic was the first to demonstrate that the anemia accompanying this disease is not due to the action of the organism alone.

The anaplasmosis organism produces an internal bodily disorder that causes the production of auto-antibodies. These auto-antibodies turn against healthy cells, destroying them rather than the infectious organisms. This process is similar to what has been known for many years as hemolytic anemia in people. However, this is the first time this type of activity has been found in animals.

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FOR IMMEDIATE RELEASE

Fusarium Wilt Striking Illinois Tomatoes

URBANA--A damaging disease called Fusarium wilt is striking home-grown tomatoes in Illinois, a University of Illinois plant disease specialist reported today.

M. P. Britton says the disease is also showing up in a few commercial fields around the state. And he regretfully adds that "growers can't do much about it this year."

Growing varieties that are immune, resistant or tolerant to Fusarium wilt is the only way to control this disease. Since it's too late to replant now, growers and home gardeners must wait until next year.

A pronounced yellowing of individual leaves signals the first stage of this disease. A single leaf turns yellow first and then the entire plant soon turns yellow. After a leaf turns, a slight touch causes it to drop off.

Fusarium wilt likes hot weather, and Illinois' recent siege of this weather has caused the disease to progress rapidly.

Britton says that a soil fungus causes Fusarium wilt. The fungus enters through the roots and lives in the food and water channels of the plant. Scientists believe that the fungus produces a toxic substance that causes the plant to wilt and die.

Since the wilt fungus remains in the soil for several years, Britton recommends growing tomatoes on the same ground only once every three or four years.

The best protective measure, however, is to grow immune varieties. Several such varieties are Boone, Brookston, Kokomo and Manalucie.

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[illegible] with Stalking Illinois Farmers

URBANA--A [illegible] disease called fusarium wilt is [illegible] southern Illinois, a university of Illinois plant disease specialist reported today.

R. F. Baker said the disease is also showing up in a few commercial fields across the state. And he [illegible] growers can't do much about it this year.

Growing varieties that are resistant, rotating or fumigating to control fusarium wilt is the only way to control this disease. Plans are [illegible] to develop more resistant and more productive [illegible].

A possible relative of [illegible] fusarium causes the disease on this [illegible]. A minute leaf turns yellow first and then the entire plant dies [illegible] yellow. After a few days, a slight breeze [illegible] it to blow [illegible].

Disease [illegible] like weather, and Illinois' recent [illegible] this weather has caused the disease to progress rapidly.

Baker says that a soil fungus causes fusarium wilt. The [illegible] enters through the roots and lives in the food and water [illegible] the plant. Scientists believe that the fungus produces a toxic substance that causes the plant to wilt and die.

Since the wilt fungus remains in the soil for several years, [illegible] recommend growing [illegible] on the same ground only once every [illegible] or four years.

The best preventive measure, however, is to grow resistant varieties. Several such varieties are Dunn, Grandin, Tomson and Morgan.

NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Viruses Elude Scientists

URBANA--Of the things that attack plants, viruses are among the most successful, and the most elusive.

It's hard to catch them at anything, and if they are nabbed it is usually too late.

One type haunts potato growers, who have seen whole crops rendered suddenly profitless. Then there's the yellow dwarf virus, which blitzed a large share of Illinois' oat acreage in 1959. A mosaic virus "does in" tomatoes every once in a while. Curly top virus threatens horseradish and other vegetable crops. Apple stem-pitting virus hangs out in healthy-looking apple trees and then strikes when it finds trees with susceptible root stocks.

Viruses are the smallest of the pathogens. Not even cellular, they are simply collections of molecules that combine to form a protein-like substance (nucleoprotein) that is very similar to ordinary protein constituents of plants. It's just a slight switch of atoms here and there that gives them an illicit appetite for certain plants.

Among the virus hunters is Dr. H. H. Thornberry, University of Illinois plant pathologist, who says more understanding is needed about basic processes before major advances can be made in control.

Thornberry spends most of his time isolating viruses from infected tissue and then studying various properties of the purified

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FOR IMMEDIATE RELEASE

Contact Judge Dornsife

(BRUNA--Of the things that stick plants, diseases are some
more successful, and the most elusive.

It's hard to catch them at anything, and if they do behave
usually too late.

One type causes potato growers, who have seen whole crops
rotted suddenly prostrate. Then there's the yellow dwarf virus,
which ruined a large chunk of Illinois' pot crops in 1974. A newer
virus is "tomatoes every once in a while. Easily top vines tomatoes
potatoes and other vegetable crops. Apple scab-infected vines stunt
in building-looking apple trees and then stifled when it leaves
unacceptable fruit stocks.

Viruses are the smallest of the pathogens. Yet even cellular
are simply collections of molecules that combine to form a nucleic
substance (nucleoprotein) that is very similar to ordinary genes
cellulose of plants. It's just a slight twist of atoms here and
that gives them an insatiat appetite for certain plants.

Among the virus workers is Dr. R. H. Dornsife, University
Illinois plant pathologist, who says work understanding is needed
early detection before major outbreaks can be made in control.

Dornsife spends most of his time "sniffing diseases from
crop tissue and then studying various properties of the particles

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viruses. Preparing viruses for study is almost a science in itself; you don't catch them with a butterfly net.

Thornberry first prepares suspect tissue for a spin in an ultracentrifuge. The rotor twirls at up to 50,000 rpm, pulling some 100,000 G's. This settles out even the most tenacious virus.

Thornberry feels that it is very important to combat the reservoirs of viruses in wild vegetation and domestic crops. In many plants, viruses often bide their time in non-lethal concentrations. The plants linger on and continue to nourish the viruses for subsequent spread to nearby healthy plants. Weeds can hover around crop areas like typhoid Marys. Insects usually do the actual spreading from carrier to victim. Virus control can also be effective where insect vectors are completely exterminated.

In view of the many avenues of infection open to virus, Thornberry has a very significant reference project under way. His office is the home of a card file index with 25,000 entries telling who's who in the virus world and how they are spread. The project represents hours of pouring through research information from all over the world by research assistant Mary Ruth Phillippe. It marks the only attempt ever made at rounding up virus intelligence in such scope.

Developing new plant varieties is in the long-range control picture. Plants can be developed with characteristics of out-and-out resistance, or they can be made so vulnerable to viruses that this too makes them resistant. Viruses cannot make headway in super-susceptible crops because they eat themselves out of house and home. By sheer multiplication, they destroy the very cells they need for survival.

The nature of resistance or susceptibility of plants to viral infections is a crucial question for pathologists like Thornberry. So is the nature of the viruses themselves. More understanding will not only mean more effective controls, but will also add to the basic knowledge of biology. According to Thornberry, viruses are thought to be chemically quite similar to the substances responsible for inheritance.

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FOR IMMEDIATE RELEASE

U. of I. Dairy Research Shows Wide Variety

URBANA--After his first tour through the University of Illinois dairy farm, a U. of I. freshman wrapped up what he saw in just four words--purebreds, crossbreds, inbreds and hybrids.

Although concise, this description does hint at the major research projects now under way on the farm.

And probably the most unusual projects this summer include the inbreds and the hybrids. The inbred tag fits a group of goats that find themselves in the unlikely position of being dairy research aids.

For the past few years researchers have used the goats in an inbreeding project which they hope may some day pave the way for full-scale dairy research in that area.

The hybrid refers to the 52 acres of corn on the U. of I. dairy farm. And in particular to a little two-acre plot that has been the talk of the ag college during recent weeks.

Last spring researcher Ken Harshbarger drilled five bushels of seed into the two acres. He wanted to test corn's worth as a quick-growing emergency forage and to see what effect such thick planting would have on the corn's feeding value.

When planting was over, the little plot was left with the unheard-of task of pushing up more than 160,000 plants per acre.

It seems that the plot did its work all too well. When researchers went out to harvest some of the corn for silage, they found a jungle of green matter that greatly resembled the lushest part of the tropics.

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[illegible] Dairy Commodity Groups Widen Activity

URBANA--After his first four months, the University of Illi[illegible] a dairy farm, a U. of I. freshman arranged to meet he now is [illegible] c [illegible]-purchase, [illegible], [illegible] and [illegible].

Although [illegible], this description does not at the major [illegible] problems one under way on the farm.

And probably the most unusual [illegible] [illegible] [illegible] and the mystery. The [illegible] by [illegible] a group of [illegible] find themselves in the unlikely position of being dairy [illegible] [illegible].

For the past few years researchers have used the farm to [illegible] projects which they hope may [illegible] the way for [illegible] dairy [illegible] in that area.

The [illegible] refers to the 32 acres of corn on the [illegible] farm. And in particular to a little two-acre plot that has [illegible] of [illegible] dairy [illegible].

Last spring researcher Ken [illegible] drilled five [illegible] [illegible] into the two acres. He wanted to find out [illegible] as a [illegible] [illegible] [illegible] and to see what effect such [illegible] [illegible] have on the cow's feeding value.

Even [illegible] was [illegible]. The little plot was left with the [illegible] task of putting up more than 100,000 [illegible] per [illegible].

It seems that the [illegible] will [illegible] [illegible] [illegible] to [illegible] some of [illegible] for [illegible], they [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].

Word has it that the valiant little plot turned out more than 50 tons of forage per acre.

Dairy researchers started their dairy cow cross-breeding experiments ten years ago. They wanted to find out whether the genetic phenomenon known as hybrid vigor--well-known for up-grading production records in hogs and corn--exists in dairy cattle.

The project started with 25 registered Holstein heifers and 25 registered Guernsey heifers. Researchers bred half of the Holstein heifers to a Guernsey bull and half to a Holstein bull. They did the same with the Guernseys.

To date the project has shown a marked milk and butterfat production advantage for the crossbreds. And crossbred calves have suffered fewer death losses from natural causes.

Most of the farm's cows--including the purebreds--are taking a vacation from research work this summer as researchers busy themselves with the 350 acres of cropland on the farm.

But the cows will swing back into full action this fall and winter as the researchers continue their work to make things easier and, it's hoped, more profitable for dairymen.

Research projects on tap for this winter include further work with the automatic dairy feeding setup being installed on the farm, the usual number of feeding and digestion trials, milking interval studies, high-moisture corn feeding studies and many, many more.

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FOR IMMEDIATE RELEASE

Outstanding Farm Site of Turkey Growers' Meeting

URBANA--One of the most outstanding turkey farms in Illinois plays host Thursday, September 1, to the Illinois State Turkey Growers' Association annual fall meeting.

Known as the Coe Gaulrapp Turkey Farm, the farm is in Whiteside county. University of Illinois poultry extension specialist S. F. Ridlen reports that the Gaulrapps raise 21,000 turkeys every year.

Some 15,000 are Broad Breasted Bronze, and 6,000 are Small Whites and Beltsville Whites.

The Bronze turkeys range on alfalfa and clover pasture, while the Small Whites and Beltsville grow in confinement. Gaulrapp uses a variety of self-feeders on the range. Turkeys are hand-fed, however, until they are put on ranges.

An outstanding feature of Gaulrapp's farm is his new turkey processing plant. This small but modern plant can dress 100 to 150 turkeys an hour.

In addition to the turkeys, Gaulrapp also raises corn, soybeans and pasture forages.

Ridlen explains that the farm is located eight miles almost due east of Prophetstown and six miles straight north of Tampico.

All persons interested in turkey production are invited to attend this meeting. The program begins at 10 a.m. During the noon hour, the Galt Grange of Sterling will serve dinner--a turkey dinner, of course.

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PAC:je
8/25/60
NO

For immediate release

Standing farm size of Turkey Growers Institute

URBANA--One of the most outstanding turkey farms in Illinois
ys host Thursday, September 1, to the Illinois Turkey Growers
ociation annual fall meeting.

Known as the Cox Hatchery Turkey Farm, the farm is in Macon
y county. University of Illinois poultry extension specialist
lon reports that the hatchery raises 21,000 turkeys every year.

Some 15,000 are trued breeding stock, and 6,000 are heavi
ies and waterville whites.

The brood turkeys range on stubble and clover pastures, wh
small whites and Waterville grow in confinement. Hatchery uses
ety of self-feeders on the range. Turkeys are hand-fed. However,
il they are put on ranges.

An outstanding feature of Dauterman's farm is his new brooder
housing plant. This small but modern plant can house 1,000 poults
ks an hour.

In addition to the turkeys, Dauterman also raises corn, soy-
ns and pasture forages.

Ritzman replaces corn the corn is located eight miles Sunnyv
east of Fruitstown and six miles straight north of Campus.

All persons interested in turkey production are invited to
end this meeting. The program begins at 10 a.m. During the noon
r, the Cell Grange of Breeding will serve dinner--turkey dinner,
course.

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FOR IMMEDIATE RELEASE

To Report on Dwarf Corn's Silage Value

URBANA--Increasing interest in dwarf corn has prompted University of Illinois beef cattle men to test its feeding value as silage.

Preliminary data from recently completed studies indicate that silage from dwarf corn performs just as well as regular corn silage. The U. of I. workers compared steers receiving dwarf corn silage with steers receiving regular corn silage. The silage was tested in both fattening and wintering rations.

A complete report of this study along with several others will be presented at Illinois' annual Cattle Feeders' Day, September 2.

Following the research reports, a U. of I. agricultural economist will discuss "The Beef Cattle Outlook." W. C. Whetsell, a rancher from Foraker, Oklahoma, will wrap up the program with his views on "A Rancher's Look Into the Future."

The morning session begins at 10 a.m. with tours of the beef cattle farm. Visitors can study feeding trials in progress and look over the University's purebred beef cattle.

From 11:45 to 1:00 a barbecue luncheon will be served in the Stock Pavilion. The formal afternoon program gets under way at 1:15 in the Auditorium.

All interested persons are invited to attend.

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PAC:je
8/25/60
NO

FOR IMMEDIATE RELEASE

Report on Swift County silage value

DURAND--Increasing interest in Swift County corn has prompted inquiry of Ultimate Seed Center as to what its feeding value is as silage.

Preliminary data from recently completed silage inquiries indicate from several corn performers just as well as results from similar. The U. of I. research conducted three recently. West Coast silage receiving equivalent corn silage. The silage was tested in fattening and wintering rations.

A complete report of this study along with several other be presented at Illinois' annual Cattle Feeders' Day, Saturday.

Following the research report, a U. of I. agricultural economist will discuss "The Beef Cattle Outlook." W. C. Murphy, a farmer Feeder, Tolono, Ill., will wind up the program with his views on "A farmer's look into the future."

The morning session begins at 10 a.m. with tours of the University farm. Visitors can study feeding trials in progress and look at the University's purebred herd exhibit.

From 11:45 to 1:00 a barbecued luncheon will be served in the pavilion. The formal afternoon program gets under way at 1:15 with auditorium.

All interested persons are invited to attend.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Cattle Tuberculosis at All-Time Low in Illinois

URBANA--Fewer Illinois cattle are being branded with the tuberculosis "T" than ever before.

The massive, nationwide eradication program started in 1918 has been very successful, says Dr. G. T. Woods, University of Illinois veterinarian. The number of Illinois cattle reacting to testing dropped from 52,139 in 1925 to 370 in 1959.

Dr. Woods says the cattle tuberculosis threat to people is at an all-time low in Illinois. But, he adds, nobody is protecting the cattle from people. It is not unusual for a veterinarian finding tubercular cattle to recommend that the farmer, his family and any herd personnel have a thorough medical examination.

These examinations sometimes show that a member of the farm family or a herdsman has active tuberculosis and in all likelihood gave it to infected animals.

The gains from eradicating bovine tuberculosis must be carefully guarded, says Dr. Woods. Illinois sits in a band of states, extending from Iowa to New York, in which veterinarians find 83 percent of all the tuberculous cattle in the United States. This means that reservoirs of infection still exist and efforts must continue to wipe them out.

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8/29/60

FOR IMMEDIATE RELEASE

U. of I. Cattle Feeders Day to Feature Report on Silage Feeding

URBANA--Cattlemen attending the University of Illinois Cattle Feeders Day September 2 can pick up some valuable tips on how long they should feed corn silage to get the cheapest gains.

"We will also report on how corn silage fed for different lengths of time affects the carcass value," says beef cattle scientist George E. Mitchell.

In this study workers fed steers a ration of free-choice corn silage plus 1 1/2 pounds of soybean meal and 1 pound of hay per head daily. The animals received this ration for 140, 210 or 280 days. Then they went on a full feed of grain.

A "control" group of similar steers received about 15 pounds of silage plus a full feed of grain immediately. Workers are comparing their performance with that of the steers receiving the free-choice corn silage.

Preliminary data suggest that the steers receiving corn silage for the 140-day period put on the cheapest gains. More detailed results will be reported at Cattle Feeders Day.

Another report to be presented concerns the puzzling problem of vitamin A deficiency in feeder cattle. Many cattle receive an adequate source of carotene and yet develop vitamin A deficiency symptoms.

Illinois scientists have studied the causes of this problem and how it is best overcome. They have found that commercial vitamin A supplements help cattle recover faster from a deficiency than alfalfa leaf meal does.

The Cattle Feeders Day program starts at 10 a.m. at the beef cattle farm. The formal program begins at 1:15 p.m. in the Auditorium. All interested persons are invited to attend.

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8/29/60

[illegible] Cattle feeders Day to feature report on silage feeding

URBANA--Cattlemen attending the University of Illinois Cattle
[illegible] Day September 2 can pick up some valuable tips on how long they
[illegible]ld feed corn silage to get the cheapest gains.

"We will also report on how corn silage fed for different
[illegible]ths of time affects the carcass value," says beef cattle specialist
[illegible]ge A. Mitchell.

In this study workers fed steers a ration of free-choice corn
[illegible] plus 1 1/2 pounds of soybean meal and 1 pound of hay per head
[illegible]y. The animals received this ration for 140, 110 or 200 days. They
[illegible] went on a full feed of grain.

A "control" group of similar steers received about 15 pounds
[illegible]age plus a full feed of grain immediately. Workers are measuring
[illegible] performance with each of the steers receiving the free-choice corn
[illegible]90.

Preliminary data suggest that the steers receiving corn silage
[illegible] 140-day period put on the cheapest gains. More detailed results
[illegible] be reported at Cattle Feeders Day.

Another report to be presented concerns the puzzling problem
[illegible]tamin A deficiency in feeder cattle. Many cattle receive no vita-
[illegible]s source of carotene and yet develop vitamin A deficiency symptoms.

Illinois scientists have studied the causes of this problem
[illegible]ow it is best overcome. They have found that commercial vitamin A
[illegible]ecomes body cattle recover faster from a deficiency than animals
[illegible] meal does.

The Cattle Feeders Day program starts at 10 a.m. at the beef
[illegible]le farm. The formal program begins at 1:15 p.m. in the auditorium.
[illegible]nterested persons are invited to attend.

FOR IMMEDIATE RELEASE

Weed Competition Study Under Way at U. of I.

URBANA--University of Illinois agronomists are now studying the effects of pigweed on soybean yields. The results may surprise many farmers who feel that a few weeds won't hurt anything.

During the first year of the study in 1959, just a single pigweed plant every five inches in the row caused a loss of almost 24 bushels of corn and 13 bushels of soybeans an acre compared with the weed-free plots.

This year the agronomists are also checking to find out why weeds may cause this yield reduction.

With a special light meter they are measuring the effects of shading. They suspect that shading may mean fewer pods on the soybean plants. Soil temperatures are also being recorded.

Visitors at Agronomy Day September 14 will see this research project and hear what the research workers have found out so far. This project is just one of 18 stops being planned. Beginning at 9:30 a.m., tours will continue through the day. Lunch will be served at the farm at noon.

The Agronomy Research Farm is located directly south of the main University campus at Urbana.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR RELEASE FRIDAY, SEPTEMBER 2, 1960

Beef Cattle Outlook Improved: Less Decline Than Expected

URBANA--Cattle feeders can expect less price decline this fall than seemed likely earlier this year, a University of Illinois agricultural economist said today.

Speaking at the annual Cattle Feeders Day, L. H. Simerl presented two main reasons for the improved outlook: The 1960 calf crop is smaller than expected, and consumers have taken the larger number of cattle slaughtered this year at fairly good prices.

Cattlemen should not expect, however, that prices will be higher in 1961 than 1960, Simerl cautioned. For the remaining four months of 1960, he said, choice cattle may hold around $25 to $26 and average about $1 to $2 below last year.

Here is how Simerl sizes up the cattle picture at this time:

The 1 1/2 percent increase in this year's calf crop is just about enough to match our population increase. But it is still smaller than in 1954, 1955 and 1956.

Cattle slaughter for the first seven months of the year topped that of last year by 9 percent. The proportion of calves being saved for feeding is no greater than it was last year. So the sharp rise in slaughter has slowed the buildup in cattle numbers.

If this trend continues for the rest of the year, cattle numbers will rise around 3 percent compared with 5 percent in 1959. A

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3 percent increase in only a little more than population growth and can be handled without a severe price adjustment.

An unusual pork shortage will boost beef demand during the next six months. The 16 percent smaller spring pig crop is the smallest crop in relation to population since the drouth years of the 1930s. Consumers have a record supply of money to spend this fall, and they will lay out a good share of it for beef.

The biggest problems facing cattle feeders for the next two to four years is writing down of inventory values. Prices are almost sure to decline because we are raising more cattle than we are killing. When slaughter matches or exceeds production, prices will have to decline to move the larger volume of beef.

If a cattle feeder is to stay in business, his replacement cattle prices must drop more than slaughter cattle prices. It is hard to make any great saving in costs of gains, so most of the decline in value per head of fat cattle should be offset by an equal decline in cost per head of feeder cattle.

The seasonal price pattern for high-grade cattle has changed for the past three years. The highest prices have come in the late winter or early spring instead of from August through November, as was formerly common. The changed seasonal pattern favors continuous year-round feeding.

Feed costs will remain about the same in the year ahead. No tight corn supply situation is likely because of the large government holdings. Price prospects for protein feeds are also about the same.

The longer outlook for beef cattle is favorable. Beef is America's favorite food, and there are no surplus stocks. There will be an ever-increasing market, but competition among producers will be strong, Simerl concluded.

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ent increase is only a little more than population growth and can
ated without a major price adjustment.

An unusual pick situation will occur this year during the
ix months. The 16 percent smaller spring pig crop is the smallest
n relation to population since our growth began in the 1920s.
ere have a record supply of money to spend this fall, and they
ay put a good share of it for food.

The biggest problems facing cattle feeders for the next two
ears is getting cheap, inventory values. Prices are about zero
line because we are raising more cattle than we are killing. Even
ter matching of economic production, prices will move to equilibrium
ith larger volume of beef.

If a cattle feeder is in shape to survive, his improvement
prices must come from cheaper cattle prices. It is hard
o see great gains in costs of gains, so that if one wishes to
ain more of the cattle should be raised by an beef producer in
er need of lower cattle.

The seasonal price pattern for heavy-weight cattle has changed
a year ago. The highest prices now come in the late
ummer early spring instead of late August through November. As was
ly common. The change seasonal pattern lowers continuous feed-
ing.

Beef cows will remain about the same in the next year. The
ocks supply situation is risky because of the large slaughter
ge. Price prospects for pork in feeds are also about the same.

The lamb outlook for beef cattle is favorable. Beef is
e's favorite food, and there are no serious substitutes. There will
ive-fattening market, but competition among producers will be
. Stress continued.

FOR IMMEDIATE RELEASE

Mechanized Poultry Feeding System Saves Time, Labor

PEORIA--A Peoria county poultryman has gone for automation in a big way. And he's showing that feed distribution can be as convenient as piping water.

From June to December of last year, poultryman Warren Frye pushed about 700 tons of feed through the mechanized system. He uses the equipment to feed out about 14,000 turkeys and 30,000 broilers a year.

Key to the labor-saving setup is a low-volume, medium-pressure, pneumatic conveying system that moves feed as easily as a water pump pipes water.

One-inch metal hose delivers the feed up and down, underground, aboveground and even around corners to poultry houses as much as 390 feet from the preparation unit.

Hoyle Puckett, USDA ag engineer at the University of Illinois, designed the system. He says it's built to handle 11 feeding locations. In one hour it can convey 1,200 pounds of feed 400 feet or more. And it has processed as much as six tons of feed in one day.

Here in a nutshell is how Frye's system works: Eight bulk storage bins hold ingredients Frye uses to make his four basic rations. Automatically controlled augers unload grain from the bins into hammer-mill meters.

After grinding and mixing, the feed moves through an airlock into the pneumatic conveyor. Then it's blown by air pressure through one-inch pipe to small storage bins at discharge stations in the poultry houses.

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In the houses, automatic feeders keep a supply of the freshly ground feed before the birds at all times.

The entire system can be controlled either by a bin switch at each feeding point or by a timer on the main control panel. Frye gets different rations by setting dials on the hammermill.

Frye says the system is paying off. The conveyor alone saves the wages of a part-time worker to distribute feed. And the efficient system sets Frye and his help free for other farm chores.

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FOR P.M. RELEASE FRIDAY, SEPTEMBER 2, 1960

Cattle Fed Corn Silage for 140 Days Make Cheapest Gains

URBANA--Probably many cattle feeders have pondered this question: "How long should I feed a heavy feed of corn silage before finishing steers on a full feed of grain to get the cheapest over-all gains?"

About 140 days seems to be the answer, according to a report made by A. L. Neumann at today's University of Illinois Cattle Feeders Day.

Neumann, who heads the beef cattle division, said they compared steers fed free-choice corn silage for 140, 210 and 280 days. Then each group went on a full feed of grain.

A "control" group of steers went on a full feed of grain immediately.

All steers went on test at the same weight and were carried until they weighed about 1,050 pounds.

Of the four groups, the steers receiving the free-choice corn silage for 140 days turned in the cheapest gains. Their total feed costs, including silage and grain, average $83.49 per head or $14.75 per hundredweight gain.

Steers on the 280-day silage feeding period had the second lowest feed costs, $15.16, followed by $15.54 for the 210-day cattle and $16.75 for those full-fed all the way.

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8/29/60

FOR P.M. RELEASE FRIDAY, SEPTEMBER 2, 1960

Dwarf Corn Silage Compares Favorably With Regular Corn

URBANA--A University of Illinois beef cattle scientist told the Cattle Feeders Day audience today that dwarf corn silage compares favorably with regular corn silage.

J. E. Zimmerman said that increasing interest in dwarf corn prompted the Illinois scientists to test its feeding value.

They found that steer calves receiving the dwarf corn silage gained slightly better than steers receiving regular corn silage in both fattening and wintering rations. Yields of dry matter per acre were very similar.

In another report, George E. Mitchell discussed the perplexing problem of vitamin A deficiency in feeder cattle. This problem has been occurring even though cattle receive an adequate amount of carotene, the precursor of vitamin A, in their feed.

Mitchell said this particular study revealed that vitamin-A-deficient steers recover more quickly when given a supplement of vitamin A than when given alfalfa meal as a carotene supplement.

In fact, steers receiving the vitamin A supplement gained .19 more pound daily during the six-week "recovery" period than steers receiving the alfalfa meal.

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FOR IMMEDIATE RELEASE

"Space-Age" Corn-Growing Methods Under Test

URBANA--High fertility, narrow rows, high plant populations and no cultivation may combine to revolutionize corn growing in a few years if tests under way at the University of Illinois this summer prove successful.

To find out whether corn might be grown more efficiently, agronomists A. L. Lang and L. B. Miller are conducting a series of tests that offer some fascinating prospects for the years to come.

This year's tests involve high plant populations, high fertility, 20-inch rows and no cultivation. On top of this combination, the tests are being carried out on land that has grown corn continuously since 1936.

The corn that is being used is a normal commercial hybrid planted at the rate of 16,000, 24,000 and 32,000 plants per acre. Each plant population is planted in rows 40 inches and 20 inches apart.

To supply the needed plant food, the agronomists applied 500 pounds of nitrogen, 250 pounds of phosphate, 250 pounds of potash and 40 tons of manure per acre. The soil had previously received lime and normal phosphate and potash applications. This combination adds up to one of the highest fertility applications ever made on an Illinois corn research plot.

Since rows planted 20 inches apart would be difficult to cultivate, the agronomists decided to test another idea. At planting, they applied a pre-emergence weed chemical, Atrazine, and have taken no

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FOR IMMEDIATE RELEASE

5-Acre "Corn-Growing Machine Under Test

MEMPHIS--High fertility, narrow rows, high plant populations and conservation may combine to revolutionize corn growing in a few years if tests made, only at the University of Illinois this summer prove valid.

To find out whether corn might be grown more efficiently, scientists M. L. Ling and L. S. Miller are conducting a series of tests using some technical procedures for the years to come.

This year's tests involve high plant population, high fertility, 20-inch rows and no cultivation. On the of this combination, the are being carried out on two two-acre corn experiments at 1936.

The corn that is being used in a recent commercial hybrid and at the rate of 16,000, 24,000 and 32,000 plants per acre. Each population is planted in rows 40 inches apart to insure space.

To supply the heavy-plant fertility, the researchers applied 300 of nitrogen, 200 pounds of phosphate, 270 pounds of potash and of manure per acre. The soil had previously received lime and phosphate and potash applications. Ling recommends such an the highest fertility applications ever made on an Illinois corn plot.

Since rows planted 20 inches apart would be difficult to cultivate, the researchers decided to test another idea. At planting, they a pre-emergence weed control, Atrazine, and were taken to

further measures to control weeds. Before planting, they also applied a soil insecticide to control soil insects that might damage the corn.

So far this season, the corn had received enough rainfall to prevent signs of moisture deficiency. Part of the plot that did not receive the high fertility treatment shows definite signs of nitrogen deficiency, however.

Corn growers will have a chance to see this corn research project at Agronomy Day, September 14. The high fertility corn research project is one of the 18 stops scheduled at the annual open house held at the agronomy research farm at Urbana.

Tours begin at 9:30 a.m. Lunch will be served at the farm at noon.

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8/29/60

FOR P.M. RELEASE FRIDAY, SEPTEMBER 2, 1960

Cattle Receiving High-Moisture Corn Made Slower Gains

URBANA--In a recent University of Illinois test, cattle receiving high-moisture corn made slower and more expensive gains than similar cattle eating dry corn.

Beef cattle researcher W. W. Albert made this report at the annual Cattle Feeders Day program today. He said the test compared four types of corn: (1) wet shelled corn, (2) dry shelled corn, (3) wet ground ear corn and (4) dry ground ear corn.

The moisture content of the wet shelled corn averaged 32 percent. On the other hand, the wet ground ear corn tested 36 percent because of the cob's higher moisture content. As it turned out, 36 percent was too high compared with the 25-30 percent moisture level usually recommended.

The moisture content of the dry corn averaged 15 percent.

Each type of corn was incorporated in a standard fattening ration and fed to Hereford heifers for 131 days.

Results showed that the dry ground ear corn produced the best gains, 2.07 pounds per head daily, and at the lowest cost, $13.36 per 100 pounds of gain.

The dry shelled corn ranked second. It produced gains of 2.01 pounds daily at a cost of $15.00 for every 100 pounds gained.

Cattle receiving the wet shelled corn made gains of 1.81 pounds daily at a cost of $16.27 per hundredweight of gain.

Heifers receiving the wet ground ear corn turned in the poorest performance--gains of 1.51 pounds daily. Every 100 pounds of their gains cost $16.74.

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Albert explained that a reduction in the wet corn's palatability probably caused the heifers receiving it to make slower and more expensive gains. This reduction was due to (1) excessive moisture content at harvest and (2) undesirable-type fermentation that occurred during ensiling and feeding.

He said that only a small amount of corn was fed daily from each silo. Consequently more rapid feeding may have improved the wet corn's feeding value by reducing the amount of fermentation.

In conclusion, Albert emphasized that the amount of moisture at harvest time plays an important role in wet corn's feeding value. When farmers harvest wet corn for use as ground ear corn, Albert urges them to test the entire ear and not the grain alone.

The ear should test between 25 and 30 percent moisture. Remember that the final ground ear-corn mixture will contain at least 5 to 10 percent more moisture than the grain alone does at harvest time.

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FOR IMMEDIATE RELEASE

Professional Farm Managers Plan Fall Tour

URBANA--Illinois professional farm managers and rural appraisers have selected two central Illinois farms for their annual fall tour on Friday, September 9.

Beginning at 9:30 a.m., the tour group will meet at the Mary Leigh Call and Eldon Ethell farm, two and one-third miles north of Cornland. Here managers from the Springfield Marine Bank will display newly built terraces and grass waterways on steep slopes. They will show how high corn and soybean yields have been achieved, with favorable net returns to owner and operator.

Following lunch at the Sharron Methodist Church west of Decatur, the group will move on to the Bear Hybrid farms nearby. They will see continuous corn plots, hybrid comparison tests and the population study plot. Cooperating corn growers will also report their yield returns.

All interested persons are invited to join the tour. Officers of the Illinois Society of Professional Farm Managers and Rural Appraisers are B. L. McNabb, Decatur, president; Glenn D. Oertley, Peoria, and Donald O. Lindholm, Sheldon, vice presidents; and W. N. Thompson, University of Illinois professor of farm management, secretary-treasurer. Luncheon reservations should be sent to Ray Eichelberger, Citizens National Bank, Decatur, by September 6.

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FOR IMMEDIATE RELEA

National Farm Managers Plan Fall Tour

URBANA--Illinois professional farm managers and farm
managers have selected two contrasting Illinois farms for their annual
tour on Friday, September 9.

Beginning at 8:30 a.m., the tour group will meet at the Mary
L. Carl and John Terrell farm, two and one-half miles north of
Sand. Here managers from the cooperative farming pool will discuss
multi harvesters and grain marketing in single enterprise. Then they will
see high corn and soybean yields from fertilized, with emphasis
systems in cases and operations.

Afternoon tours to the Illinois Agricultural Center will be
two. The group will move on to the Dean Spencer farm where
the continuous corn plots, hybrid comparison tests and the
study plot. Cooperating corn growers will also inspect their
farm.

All interested persons are invited to join the tour.

The Illinois Society of Professional Farm Managers and Rural
Appraisers has Mr. L. Keene, President, Bloomington, as President,
Carl, and Donald G. Lindholm, Secretary, also participating and W. E
Spencer, University of Illinois extension of farm management, guest
speaker. Luncheon reservations should be made by noon Friday,
James National Bank, Decatur, by attendees.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Scientist Discovers New High-Sugar Sweet Corn

URBANA--An accidental discovery by a University of Illinois plant scientist has led to the development of a new "super sugary" sweet corn. It could be a dream come true for the corn-on-the-cob connoisseur.

Although the new corn looks like any other sweet corn growing in the field, it has a sugar content about twice as high as that of ordinary corn. And another important quality that gives this corn great future prospects is its ability to hold this sugar without loss.

Ordinary sweet corn carries about 20 percent sugar, but much of it changes to starch shortly after harvest unless the corn is cooled quickly and kept refrigerated. That's why home gardeners who pick their corn and put it into boiling water immediately usually have the best tasting corn on their tables.

But this new "super sugary" corn contains about 45 percent sugar. Even after 48 hours at room temperature, it still retains 40 percent sugar. Ordinary sweet corn would have only one-fourth this much

With this new corn, commercial growers a great distance from market could supply consumers with a much higher quality product than they are now able to do. The new corn will yield just as much as regular sweet corn. It is just as tender, but the texture is slightly different.

J. R. Laughnan, U. of I. corn geneticist, discovered the high-sugar gene accidentally when he was studying color characteristics of

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corn. He crossed it with regular sweet corn to develop the new "super sugary" hybrid.

Limited quantities of single-cross seed of this new corn will be available from the Illinois Seed Producers Association, Champaign, for 1961 planting. The seed will sell for $1.00 a pound and will be sold to those who want to produce seed.

More details on this new corn will be presented at Agronomy Day on September 14 at Urbana. One of the 18 stops on the research farm tour will feature this new vegetable corn. Free samples of seed will be given to those who would like to try the corn in their gardens.

Tours begin at 9:30 a.m. and continue throughout the day. Lunch will be served at the farm at noon.

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FOR IMMEDIATE RELEASE

Keep Present Chicago Milk Price Formula, Economist Suggests

URBANA--A University of Illinois agricultural economist stated today that dairymen now selling on the Chicago market would be ahead in the long run if they would keep their present pricing formula in place of a proposed pricing plan.

R. W. Bartlett reports that the present formula for milk going into fluid use closely reflects changes in consumer income, population and other demand and supply factors. According to a recent study, the proposed economic formula does not accurately reflect supply and demand changes over the past 20 years.

If the proposed formula were adopted, dairymen would probably receive higher prices for a short time, Bartlett points out. But the higher prices would probably encourage many Wisconsin dairymen now selling manufactured milk to qualify for the Chicago Grade A market. The result would be a great oversupply that would mean a lower average price for all dairymen.

For the past 10 years the Chicago market has received more than adequate amounts of Grade A milk to supply all needs for fluid use, ice cream and table cream. So the excess milk has moved into lower priced uses, such as evaporated milk, powder and butter.

Since 1956, producers cooperative associations have negotiated for higher prices above the minimum set by the federal market order. These negotiated prices have been at least partly responsible for substantial increases above the amount of milk needed, Bartlett believes. Changing the pricing formula would aggravate the supply situation even more, he concludes. A complete report of the proposed formula study is available on request.

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FOR IMMEDIATE RELEASE

Present Chicago Milk Price Formula, Economist Says

URBANA--A University of Illinois agricultural economist said that dairymen who selling in the Chicago market would be ahead in the long run if they would keep their present pricing formula to avoid a proposed pricing plan.

R. W. Bartlett reports that the present formula for milk prices in Illinois and Chicago reflects changes in consumer income, population, farm demand and supply factors. According to a price study, the proposed economic formula does not accurately reflect supply and demand over the past 10 years.

If the proposed formula were accepted, dairymen would present higher prices for a short time, Bartlett points out. But the higher prices would ultimately encourage many dairymen who are manufacturing milk to qualify for the Chicago grade A market. The result would be a great oversupply that would mean a lower average price to all dairymen.

For the past 10 years the Chicago market has received more adequate amounts of grade A milk to supply all needs for fluid milk, cream and table cream. So the market has the market like some other markets, such as evaporated milk, powder and butter.

Since 1955, producers cooperative associations have established higher prices where the minimum set by the federal market orders. The modified prices have been at least partly responsible for increasing differences among the amount of milk (reserve) purchased during the pricing formula would operate, the market situation would be considered. A complete report of the proposed formula study is available on request.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

"Stress Feed" Effectiveness Varied and Disappointing

URBANA--The results of using "stress feeds" to protect incoming feeder cattle against shipping fever have been varied and generally disappointing, says Dr. G. T. Woods, University of Illinois veterinarian. He and other veterinarians recommend treating affected feeders on the basis of the severity of each individual case of shipping fever.

Dr. Woods is currently directing the shipping fever research project at the U. of I. College of Veterinary Medicine. This project has been operating continuously for the past four years.

The exact cause of shipping fever is unknown. To date research evidence indicates that the disease complex involves stress as a triggering mechanism for viral and bacterial infections.

Dr. Woods believes that the presence of one or more viruses in the shipping fever disease complex is responsible for the reduced effectiveness of drugs designed to prevent it. Antibiotics used in "stress feeds" are generally ineffective against viruses, although helpful against various bacteria.

The term shipping fever is applied to several different clinical signs usually occurring in cattle following shipment. The disease is primarily respiratory in nature and varies from a mild depression to a rapidly fatal pneumonia.

The events leading to shipping fever appear to be as follows: An animal arriving in feedlot is weakened by stress. This may result from weaning, handling, transporting and changing of feed. In this weakened condition, the animal is susceptible to infection with one or more viruses which further lower resistance so that bacteria already in the animal's respiratory tract can contribute to causing the disease called shipping fever.

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FOR IMMEDIATE RELEASE

U. of I. Offers Extramural Courses Around State

URBANA--A number of Illinois farmers will sharpen their pencils this fall as they enroll in extramural courses offered around the state by the University of Illinois College of Agriculture.

Assistant Dean C. D. Smith says these courses are offered in cooperation with the Division of University Extension. Any Illinois resident may enroll if he has completed two or more years of college. And he must have taken the necessary prerequisite courses.

Each course carries three hours of undergraduate credit or one-half unit of graduate credit. All instructors are regular members of the college staff.

These extramural courses are:

1. Agricultural Economics 324: Farm Operation. R. N. Van Arsdall will teach this course on Thursday evenings in East St. Louis High School beginning September 22 at 7:30 p.m.

2. Agronomy 306: Fertilizers and Their Soil Reactions. L. T. Kurtz will teach this course in Oregon Wednesday evenings beginning September 21. This class meets in the Farm Bureau building at 7 p.m.

3. Agronomy 326: Weeds and Their Control. F. W. Slife will teach this course in the Springfield High School. Classes begin Tuesday, September 20, at 7 p.m.

4. Plant Pathology 377: Diseases of Field Crops. This course meets Saturday mornings in the Pekin High School beginning September 17. Wayne M. Bever will serve as the instructor.

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5. Agr. Engineering 331: Function, Application, Adjustment and Management of Farm Machinery. Wendell Bowers and B. J. Butler will teach this course at the Clay City High School. The course will meet Mondays from 4 to 10 p.m., beginning October 10.

6. Agr. Engineering 381: Farm Electrical Equipment. Robert Peart will teach this course at the Dixon High School on Wednesdays beginning September 21. The class meets at 7 p.m.

For additional information concerning these courses, contact your U. of I. county farm adviser. Or write to the Division of University Extension, Urbana, Illinois.

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UNIVERSITY OF ILLINOIS
AGRICULTURAL CONFERENCES
Urbana, Illinois

COLLEGE OF AGRICULTURE and the
DIVISION OF UNIVERSITY EXTENSION

FOR RELEASE THURSDAY P.M., SEPTEMBER 15, 1960

SPECIAL: Farmstead Engineering Conference News Coverage

Cattle Expert Predicts Changes in Beef Business

URBANA--Cattlemen can look for a number of interesting changes in the beef cattle business if the predictions of A. E. Darlow, vice-president of Oklahoma State University, come true.

Darlow took his look into the future in a talk today before more than 500 of the nation's top ag engineers who are attending a Farmstead Engineering Conference on confinement housing of livestock this week at the University of Illinois. The conference is sponsored by the American Society of Agricultural Engineers.

The internationally known cattle expert predicted a rise in beef cattle numbers, growing consumer demand for red meat and several changes in present methods of beef production.

One of the production changes Darlow foresees is higher farmer interest in performance testing.

He believes this type of record-keeping will increase because commercial cattle producers will insist on additional information about the bulls they buy.

Darlow sees a further adjustment in beef cattle population within certain areas of the country. He said that when farmers no

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longer are producing wheat for government storage, the price will inevitably be much lower than it is today.

"This will mean the range and wheat country will carry more cattle because land that is now in wheat will be put into permanent grass or forage of some kind," he explained.

Darlow predicted increased feeding in feeder cattle producing areas. He foresees more cows in the Corn Belt and more feeding in what we now call the "cow country."

"As the population in the south, southwest and west increases, it will become increasingly ridiculous to grow cattle in the southwest, ship them to the north to be fed, and back to the southwest for consumption," Darlow said.

Darlow believes the end of the middle-sized operator may be in sight. The two types left will be the smaller feeder and the one who feeds enough cattle to be able to install the necessary machinery for storing, handling, mixing, processing and distributing feed to cattle.

Darlow is convinced that all feeding in the big operations will be mechanized.

He concluded that there would be some integrated operations in the west from the feeder calf stage on. But he does not anticipate a great deal of integration.

"It probably won't reach the point where some outfit owns the land, runs the cows, produces the calves and feeds them out--even to the point of slaughtering, processing and distributing the meat," Darlow said.

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FOR RELEASE THURSDAY P.M., SEPTEMBER 15, 1960

SPECIAL: Farmstead Engineering Conference News Coverage

Farmstead Of Future Due For Drastic Changes

URBANA--An Ohio agricultural engineer today predicted some drastic changes for the farmstead of the future.

Speaking at the University of Illinois, consulting engineer H. J. Barre said tomorrow's farmstead would resemble a plant or factory, arranged and designed to produce one type of livestock or one kind of livestock product.

"The plant may not even be a part of or located on a farm," he explained.

Barre's talk wrapped up the three-day Farmstead Engineering Conference on Confinement Housing of Livestock held on the U. of I. campus this week. The conference attracted more than 500 of the nation's top ag engineers.

Barre pointed out that new technologies, specialization, the cost-price squeeze and other forces are industrializing the American farmstead.

The well-known Ohio engineer believes that in general the size of the physical plant for future livestock enterprises will fall into two categories--small and large.

"The small enterprise will be essentially a one-man unit, and its size will be determined by the number of animals one man can handle," Barre explained.

He said the large enterprises would be large units where several men perform separate jobs under one manager.

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Barre said old customs make it a bit risky to suggest that "the old barn is a bottleneck to efficient production and therefore must be replaced with structures and equipment which take on the appearance of a factory."

But the "old" must give way to the "new," he explained. And the "new" will be an expansion of the trend toward specialization that follows the pattern established in industry.

"Production under contract has speeded up the adoption of new technologies--particularly those which improve production efficiency," Barre explained.

Designing a plant for producing livestock is becoming more and more like developing an industrial plant. It must be designed to a selected capacity, for efficiency and for a market, Barre explained.

The Farmstead Engineering Conference was sponsored by the American Society of Agricultural Engineers.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

State Dairy Princess Contest Set
For September 7 at U. of I.

URBANA--"Mirror, mirror on the wall, who's the fairest of them all?"

This old proverb will certainly apply Wednesday, September 7, when 14 of the state's loveliest young beauties will vie for the title of Illinois Dairy Princess.

The contest will be held at the University of Illinois in Urbana. It's sponsored by the American Dairy Association of Illinois.

During her year-long reign, the Dairy Princess will promote milk and other dairy products throughout the state. In the fall she'll compete against girls from all over the U. S. for the title of National Dairy Princess. This contest will be staged in Chicago.

The girls vying for the title of Illinois Dairy Princess, and their sponsors, include:

Christine A. Harrison	Princeville	Peoria County Farm Bureau
Nelda D. Best	Alhambra	Madison County Farm Bureau
Jo Ann Kremer	Teutopolis	Effingham County Farm Bureau
Beverly Ann Buzzard	Quincy	Adams County Farm Bureau
Jeanette Seaman	Richman	McHenry County Dairy Production Council
Jean Rengel	Bloomington	McLean County Farm Bureau
Jean Cohenour	Sterling	American Guernsey Club District 4 Rock River Valley Holstein-Friesian Brown Swiss Canton District 2
Bethany Hage	Yorkville	Kendall County Farm Bureau
Bonny Jo Metz	Forrest	Forrest Dairy Association
Patty Brooks	Buffalo	Karl Kreis, Buffalo
Jane Zuidema	Morrison	Whiteside County Farm Bureau
Nannette Smith	Oswego	District 9, PMA
Barbara Lou Howard	Dundee	Dundee Dandies 4-H Club

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UNIVERSITY OF ILLINOIS
AGRICULTURAL CONFERENCES
Urbana, Illinois

COLLEGE OF AGRICULTURE and the
DIVISION OF UNIVERSITY EXTENSION

FOR RELEASE TUESDAY P.M., SEPTEMBER 13, 1960

SPECIAL: Farmstead Engineering Conference News Coverage

Engineered Farmstead--Key Factor in Production

URBANA--The farmstead and its parts--buildings, fences, equipment and roads--contribute to profitable production in the same way as fertilizer or livestock feed, two USDA agricultural economists at the University of Illinois pointed out this week.

Speaking before the Farmstead Engineering Conference sponsored by the American Society of Agricultural Engineers, Velmar W. Davis and Roy N. Van Arsdall emphasized that the chief purpose of the farmstead is to produce income, although it may provide many things to the farm family and the farm business.

Improved farmsteads can contribute to higher income by (1) increasing the amount of livestock each farm worker can handle, (2) reducing the costs for each unit produced and (3) protecting or increasing the quality and value of the product.

The economists noted that buildings and equipment account for one-fourth to one-fifth of the capital needs for beef cattle feeding; half of the capital invested in hog, sheep and dairy enterprises; and about three-fourths of the investment in poultry operations. But, in terms of costs per year, building and equipment costs are a rather small part of total production cost. They make up about 10 percent of the cost

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of producing milk, are less for other livestock and drop as low as 3 percent for small grain.

Possible benefits from properly engineered farmsteads are almost unlimited. One of the most significant is increasing the productive capacity of a farm worker.

For example, a midwestern dairyman who does his chores by hand has a full work load with 16 cows. The average dairyman who adds standard dairy equipment and improves his work methods raises his capacity to 23 cows. With the same labor and equipment, the most efficient dairyman can handle 31 cows. But, with recent advances in equipment and know-how, a good dairyman can handle 65 cows, excluding production of dairy feed, Davis and Van Arsdall reported.

With hand methods, one man would have a full-time job feeding out 210 steer calves a year. But, with the best methods available, he could step up his capacity to 625 head. While old methods allow a man to produce 90 litters of hogs a year, the most up-to-date mechanical methods would permit him to produce 215 litters.

Although the amount of production per cow, hog or chicken cannot be ignored, increasing the number of these animals one man can handle is one of the best ways to boost net income at the present time, Davis and Van Arsdall emphasized.

Engineered farmsteads can also help control the environment. For example, the ideal temperature for producing eggs is between 45 and 65 degrees F. When temperatures are above or below this range, the hens lay fewer eggs. The economists cautioned, however, that the amount spent for controlling environment must depend on how much extra return can be expected from doing so.

They also urged engineers to plan ahead and evaluate future methods of livestock production.

If this cannot be done accurately, then flexible buildings and equipment must be designed. They must also be less permanent so that future changes can be made more easily without loss of money already invested.

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[illegible] milk, are less for small dairyman and more or the [illegible] for small farms.

Possible benefits from proper engineered farmstead [illegible] not minimized. One of the most significant is increasing the [illegible] capacity of a farm worker.

For example, a dairyman desiring the ease his mother [illegible] full work load will be able [illegible] the average farmer who [illegible] dairy equipment, and [illegible] work methods [illegible] the capacity [illegible] cows. With the same labor and equipment, [illegible] efficient [illegible] can handle 31 cows. But, with proper [illegible] equipment [illegible] allow, a good dairyman [illegible] to [illegible] producing [illegible] milk, [illegible] and [illegible] equipment.

With hand methods, one [illegible] would have a full-time job [illegible] 210 [illegible] cows a year. But, with the [illegible] equipment [illegible] and [illegible] capacity to 625 head. [illegible] old [illegible] [illegible] of [illegible] a year, [illegible] would permit him to produce [illegible].

Although the amount of production [illegible] may [illegible] the improved, increasing [illegible] or [illegible] is one of the most ways to boost net income at the present [illegible] of the [illegible] [illegible].

Engineered farmsteads can also help control [illegible] [illegible], the ideal temperature for [illegible] is between [illegible] [illegible] temperatures are above or below this range, the [illegible] range. The economics [illegible], however, that the amount [illegible] the controlling environment [illegible] be expected from [illegible].

They also [illegible] equipment to give speed and [illegible] [illegible] of livestock production.

If this cannot be done economically, then flexible [illegible] equipment must be designed. They may also be [illegible] [illegible] future changes can be made more easily without loss of [illegible] [illegible].

FOR RELEASE TUESDAY P.M., SEPTEMBER 13, 1960

SPECIAL: Farmstead Engineering Conference News Coverage

Judgment Still Part of Poultry Raising

URBANA--Brains, judgment and intuition are still necessary if the best engineered poultry buildings, equipment and systems are to operate efficiently.

So explained T. C. Byerly, deputy administrator of the USDA's Agricultural Research Division, in a keynote talk today before the Farmstead Engineering Conference on confinement housing of livestock at the University of Illinois.

Speaking before more than 500 of the nation's top ag engineers, Byerly said engineering research and other technological advances in poultry raising tend to push aside the art of poultry husbandry.

"Instead of poultry husbandrymen in the traditional sense, we are training behavioral scientists, climatic physiologists, geneticists, nutritionists, ecologists, immunologists and engineers," Byerly explained.

Collectively, these men know and can demonstrate that they know far more about poultry than the poultry husbandman ever hoped to know, he said.

"But, as we reduce the amount of human time and labor, we also lose flexibility," Byerly said.

The machine and the system may be programmed to signal trouble. But the best a machine can do to meet trouble is to stop running, he explained.

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FOR RELEASE WEDNESDAY P.M., SEPTEMBER 14, 1960

SPECIAL: Farmstead Engineering Conference News Coverage

UI Ag Engineer Says Original Cost Isn't Factor
In One-, Two- or Three-Building Swine System

URBANA--The decision whether a farmer should use a one-, two- or three-building system for growing hogs in confinement will depend on factors other than original cost of construction, according to Don Jedele, University of Illinois agricultural engineer.

Speaking today before the three-day Farmstead Engineering Conference in Urbana, Jedele explained that under the one-building system farmers confine pigs to the farrowing house area from birth to market.

He said hogs raised in the two-building system are farrowed in one building and then, at weaning, switched to a growing and finishing house. The three-building system uses a farrowing house, a nursery for early weaned pigs and a finishing house.

Jedele said some farmers feel they should use at least a two-building system because a finishing building costs less than a farrowing house.

In other words, Jedele explained, farmers feel that, to handle the same number of hogs, it would be cheaper to build a farrowing house and a finishing house than to build two farrow-to-finish houses.

The U. of I. ag engineer agreed that this is true. But he added that a careful analysis of building scheduling shows that the buildings must sit idle for part of the growing period in a two- or three-building system. This offsets any saving in original cost.

"In other words," Jedele said, "a farrow-to-finish building actually competes in cost with the two-building and three-building plans."

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Therefore, other factors should influence swine housing decisions. Jedele said some of these factors are:

1. Management ability and preferences of the farmer.

2. Requirements for disease control.

3. "Stress" on the pigs.

4. Higher requirements for environmental control.

5. Water and feed distribution.

6. Manure removal and disposal.

7. Type and location of old buildings that can be used in the swine operation.

Jedele said the first six of these factors favor farrow-to-finish buildings.

"But No. 7 favors more than one building," he added. "Many farms have buildings, such as a poultry house or a horse barn, that can be used economically in a swine housing system."

Jedele pointed to the need for a standard unit to work with in developing any system of swine housing. He suggested a unit of eight sows and litters, because multiples of eight fit into several common management requirements.

He said a standard unit "could lower the cost of manufacturing building parts, ventilating systems, air conditioning equipment, feeders and other items."

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FOR RELEASE WEDNESDAY P.M., SEPTEMBER 14, 1960

SPECIAL: Farmstead Engineering Conference News Coverage

Engineer Says Planning Ahead Is Key to Good Dairy Operation

URBANA--Planning ahead is the key to building an efficient, well-arranged dairy farmstead, according to Joe Clayton, University of Massachusetts agricultural engineer.

Speaking today at the University of Illinois, Clayton said the rapid changes in dairy production methods make a well-planned, flexible barnlot system more important than ever.

The Massachusetts engineer is one of 25 speakers at the Farmstead Engineering Conference on Confinement Housing of Livestock under way in Urbana this week.

Clayton said many farmstead labor studies emphasize the use of equipment to overcome poor layout. This may be the right solution in situations where layout is relatively fixed.

"But it is wrong to assume that more and better equipment is the whole answer," Clayton said.

He said it's highly unlikely that the chore labor problem on any dairy farm will be greatly improved by adding an isolated piece of "labor-saving" equipment.

"Feed processing and handling problems are not solved by installing a hammer mill alone, nor is the milk handling problem adequately solved by just putting in a pipeline," Clayton explained.

In order to be effective, the entire solution for a given farm must be worked out at once from the planning viewpoint--even though it might have to be planned pretty far ahead.

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The author is indebted to Mr. [illegible] for

[illegible] information concerning conference room [illegible]

[illegible] Plumbing Industry [illegible]

[illegible]-Plumbing seems to be key to building as efficient, [illegible] accepted daily practice, according to one [illegible] authority of [illegible] agricultural engineers.

Speaking today [illegible] the university of Illinois, Clayton said [illegible] in daily [illegible] addition which is more a multi-[illegible] [illegible] system more important than ever.

The Massachusetts engineer is not at [illegible] as the [illegible] [illegible] conditions or [illegible] housing of livestock under [illegible] [illegible] years.

Clayton said [illegible] farmers [illegible] modernize and use [illegible] to overcome poor layout. [illegible] may be the right solution [illegible] where [illegible] is relatively [illegible].

"But [illegible] assumes that [illegible] and [illegible] equipment is [illegible] money," Clayton said.

He said it is highly unlikely that the [illegible] labor problem [illegible] will be greatly improved by [illegible] to isolated [illegible] [illegible] adjustment.

"Good [illegible] and handling problems are not [illegible] by [illegible] a human [illegible] alone, but is the [illegible] handling problem when [illegible] solved [illegible] to a [illegible] [illegible] evaluated [illegible] is done [illegible], the [illegible] solution for a [illegible] [illegible] be [illegible] from the [illegible] [illegible] [illegible] equipment [illegible] to be planned jointly by [illegible].

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Clayton said progress has been made in developing buildings, equipment and management practices to boost the effectiveness of dairy farmstead operation.

"But the integration of buildings, equipment and production methods remains a hazy area for farmers and for many of those who advise them," he added.

What the dairyman needs, according to Clayton, is a thoroughly worked-out plan for providing the right buildings, located in the right places, with the necessary lots and areas.

"And the whole layout should be provided with a 'system' of equipment for handling the jobs in a logical order from beginning to end with a minimum of supervision," he explained.

Clayton said farmstead planning is too often confused by the fact that equipment is made and sold by many manufacturers and dealers.

"The complete package is still something that has to be worked out at the local level," he explained.

Very often people who are not well grounded in the over-all picture attempt to work out the final system. The frequent result is that the job is not very well done and involves many unnecessary compromises and even costly mistakes, Clayton said.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Many Causes of Farm Problem, Economist Lists Four Areas of Needed Emphasis

URBANA--The farm problem today is made up of many parts, a University of Illinois agricultural economist believes.

Two-thirds of our farm population produce less than one-fourth of the total product going through the market. Farm prices have declined about one-fifth since 1952, putting an income squeeze on all commercial agriculture. Many farmers are underemployed. Financing adequate-sized farm units is a problem. Heavy property taxes place a burden on many farmers. Huge government spending on farm programs is considered a problem by many people. And the waste of human, capital, land and other physical resources in agriculture is part of the farm problem too.

Harold G. Halcrow, head of the U. of I. department of agricultural economics, lists four areas where federal farm programs should put more emphasis. In a special interview article in the September issue of Better Farming Methods, he suggests more attention in these ways:

1. Young people in rural areas need a broader education so that they will not be solely dependent on farming as a future occupation. Studies show that there is room in farming for only about one-fourth of the young people who grow up on farms. Many of these young people are not aware of the great opportunities open to them through education.

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2. Off-farm employment opportunities for farmers must be developed for those who find themselves in low-income situations and who have the qualifications for and an interest in off-farm employment. The number of farm people working off the farm or migrating to jobs outside agriculture is increasing rapidly. Ways should also be found to provide job training so that those who take nonfarm jobs won't have to start so far down on the income ladder.

3. Farm families need help in planning and financing the best adapted family farms. More attention needs to be given to things farm families can do to put themselves on a sound financial footing. This includes long-range farm planning and improved management programs for the individual farm.

4. We need to recognize more clearly the place of programs that will "cushion" the shock of a price squeeze pending a more fundamental resource allocation. We should have emergency programs, but we should be willing to drop these programs in time to prevent difficult adjustment problems.

If these measures are not encouraged, Halcrow thinks the alternative is a more comprehensive support and control program that would provide more of an income cushion in the short run and a more modest decline in the number of farm units. Such a choice, however, would lead to continued large government subsidies, less efficiency in agriculture and more restrictions on individual producers' decisions.

A 70-million-acre soil bank could help to supplement income and stabilize prices in the short run, but it would not solve the longer run and more fundamental farm problems, Halcrow states.

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Agriculture has such a great potential for increasing production that we can take 70 million acres out of production and still have a surplus-creating capacity at prices above the current market levels.

A land retirement program could reduce the need for expensive surplus storage. But it could not greatly increase prices of some of our big cash crops, such as wheat, cotton and soybeans, because large shares of these crops are sold in foreign markets over which we have little control, Halcrow emphasized. Our large storage stocks will also hold down potential price increases.

In closing the interview, Halcrow stated that he was "conservatively optimistic" about the future of agriculture. Some adjustments are being made. We should keep our basic concept of the family farm, he stated. But he suggested that the needs for adjustment be approached in a more positive manner.

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FOR IMMEDIATE RELEASE

Four U. of I. Rambouillet Rams Head for Texas Tests

URBANA--Four Rambouillet ram lambs from the University of Illinois sheep flock have been shipped to Texas for performance testing this fall and winter, U. S. Garrigus announced today.

Garrigus heads the University's sheep division. He says the tests are conducted annually by the Texas Agricultural Experiment Station at their Sonora substation.

"The tests give sheep breeders from all over the nation a chance to compare the performance of the rams," Garrigus stated. They also encourage breeders to improve their sheep more efficiently through the use of performance records.

These records of the lambs reveal, too, the productivity performance of their sire. One ram sired all four of the U. of I. lambs.

Finally, the tests enable breeders to evaluate these ram lambs as potential flock sires.

The tests get under way on September 20 and wind up next March. During that time the Texas workers will record data on (1) rate of gain, (2) wool growth, (3) staple length and diameter of the wool, (4) amount of wool covering the face and the belly, (5) skin folds and (6) body conformation.

Workers will self-feed the rams a ration featuring 70 percent chopped alfalfa and 30 percent whole oats. They designed the ration to speed growth and not to fatten the young rams.

The University of Illinois Rambouillet flock is one of the oldest in the nation. It has long been recognized as an outstanding source of commercial breeding stock for flocks all over the country.

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FOR IMMEDIATE RELEASE

Set 1961 Farm and Home Festival, April 6-8

URBANA--The 1961 University of Illinois Farm and Home Festival will be held April 6, 7 and 8, Dean Louis B. Howard of the College of Agriculture announced this week.

K. A. Kendall, professor of dairy science and chairman of the 1960 festival, has been appointed to serve as chairman again next year. Committees are now being formed, and planning will soon be under way.

A Farm and Home Festival has been held each year since 1958, when the annual Farm and Home Week program in mid-winter was discontinued. From 10,000 to 15,000 people have visited the College of Agriculture campus each year for the three-day exposition. Displays, exhibits, demonstrations, speaking programs and special features have attracted interest of all members of the family.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR RELEASE WEEK OF SEPTEMBER 19, 1960

Illinois Landowners Pay Record High Taxes

Taxes paid on Illinois farm land climbed to a record high in 1959, a University of Illinois professor of agricultural law reported this week. N. G. P. Krausz says Illinois landowners paid out $118.7 million, or 14 percent of their net income.

The 1959 real estate tax take was 3.7 percent above that of 1958 and about four times as much as that of 1940. The national increase from 1958 to 1959, however, averaged 8 percent.

Illinois topped all other corn-belt states in tax levy per acre. While Illinois landowners paid $3.93 an acre, other corn-belt landowners averaged only $2.00 an acre. The national average is $1.11. Four northeastern states had higher per acre taxes than Illinois.

High value of Illinois land does not account entirely for the higher taxes. When Krausz computed the taxes on the basis of $100 value, Illinois tax remained the highest in the corn belt and 45 percent above the U. S. average.

Public schools take the largest portions of real estate tax revenues, Krausz points out. Rising enrollment creates demands for new schools, additional staff and greater operating revenues. More increases in real property taxes can be expected as long as the tax structure remains basically the same, he concludes.

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FOR RELEASE WEEK OF SEPTEMBER 19, 1960

White Snakeroot Remains Green, Tempting in Dry Pastures

Poisonous white snakeroot remains green after pastures become dry and short.

The plants then become tempting to grazing animals that avoid them when pastures are lush, says Dr. R. P. Link, University of Illinois veterinarian. Tempting, and poisonous to all animals, white snakeroot is one of the most dangerous poisonous plants livestock operators must cope with in the fall.

The plant can be spotted easily. It is slender and erect, growing from one to five feet high. The leaves, which grow opposite each other, are three to five inches long. They are oval, tapering to a slight point, and have sharp-toothed edges. When in bloom, white snakeroot has 8 to 30 small white flowers. It grows most commonly in the damp, rich soil of woods, in shady ravines and along streams.

Cattle and other grazing animals usually eat only a little of the poisonous plant at a time, becoming poisoned gradually. They may not show signs of sickness for some time. Eventually, however, they become listless and inactive.

Farmers can recognize this poisoning by the trembling in an animal's legs and muzzle. As the poisoning progresses, the affected animal loses its appetite and becomes so weak that it cannot stand. A poisoned cow grinds its teeth and has a fetid breath. It breathes hard and fast, with a characteristic grunt as it inhales.

While there is no specific treatment for this poisoning, Dr. Link recommends milking lactating animals frequently to help eliminate the toxic agent. Veterinarians can give treatment to keep affected animals alive until the agent is eliminated.

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9/14/60

FOR RELEASE WEEK OF SEPTEMBER 19, 1960

Floor Laying Increasing; Cuts Profits

A University of Illinois poultry specialist reports that floor laying seems to be increasing in poultry flocks around the state.

S. F. Ridlen warns that floor laying, compared with nest laying, means lower profits for poultrymen.

Floor laying also means extra time and labor to collect the eggs. Most of the eggs are dirty, too, requiring more cleaning time. And some are so badly stained that they can't be completely cleaned. These eggs are worth little money.

Floor laying also increases cracking and breaking. This often leads to egg eating, a hard-to-stop habit among hens.

Here are some reasons for floor laying:

1. Failing to house pullets before they begin laying.

2. Providing too few nests. Allow one nest for every four or five hens. If using community nests, provide one square foot of nesting space for four or five birds.

3. Placing the nests in too much light or too high. Keep nests in darker areas of the hen house and at reasonable heights.

4. Letting the nesting material get dirty.

5. Letting automatic egg-gathering belts frighten young pullets. To avoid this problem, let pullets use the nests several weeks before starting the belts.

If floor laying does start, Ridlen advises stopping it as soon as possible. Putting wire netting over the favorite floor-nesting areas may help. Moving the nests to new locations also has helped in some flocks.

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9/14/60

NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Illinois Landowners Pay Record High Taxes

URBANA--Taxes paid on Illinois farm land climbed to a record high in 1959, a University of Illinois professor of agricultural law reported this week. N. G. P. Krausz says Illinois landowners paid out $118.7 million, or 14 percent of their net income.

The 1959 real estate tax take was 3.7 percent above that of 1958 and about four times as much as that of 1940. The national increase from 1958 to 1959, however, averaged 8 percent.

Illinois topped all other corn-belt states in tax levy per acre. While Illinois landowners paid $3.93 an acre, other corn-belt landowners averaged only $2.00 an acre. The national average is $1.11. Four northeastern states had higher per acre taxes than Illinois.

High value of Illinois land does not account entirely for the higher taxes. When Krausz computed the taxes on the basis of $100 value, Illinois tax remained the highest in the corn belt and 45 percent above the U. S. average.

Public schools take the largest portions of real estate tax revenues, Krausz points out. Rising enrollment creates demands for new schools, additional staff and greater operating revenues. More increases in real property taxes can be expected as long as the tax structure remains basically the same, he concludes.

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HDG:mfb
9/14/60
NO

FOR IMMEDIATE RELEASE

Thimet Now Approved for Controlling Hessian Flies

URBANA--A University of Illinois entomologist announces that the USDA has now approved the insecticide Thimet for controlling Hessian flies in wheat.

Steve Moore, who is also an entomologist with the Illinois Natural History Survey, explains that Hessian flies cause thousands of dollars worth of wheat damage every year. They attack the wheat stalks in the fall, making the plants so weak that they can't survive winter weather.

Thimet's approval comes just in time for fall wheat planting. Farmers can buy it in granular form at agricultural supply companies. Moore advises distributing the granules evenly in the furrow at planting time. For the best application, use a grass seeder attached to the grain drill.

When the wheat sprouts, Thimet circulates through the sap system of the plant. Then when flies feed on the wheat plant, they get a mouthful of poison.

Moore recommends that farmers use Thimet only under two conditions: (1) if they must plant wheat before the recommended fly-free seeding date, or (2) if they do not plant a resistant variety. Three resistant varieties include Dual, Ponca and Monon.

Moore explains that wheat planted on or after the recommended date germinates after the Hessian fly danger has passed. Therefore Thimet is most advantageous to farmers who must plant wheat before the recommended date.

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(Ag Insecticide Article)

[illegible] New Insecticide Controlling Insects Filed

URBANA--A University of Illinois entomologist announced [illegible] USDA has now approved the insecticide Thimet for controlling insects in wheat.

Steve Moore, who is also an entomologist with the Illinois [illegible] Insect Survey, explained that western flies cause thousands of [illegible] worth of wheat damage every year. They attack the young wheat [illegible] the fall, making the plants so weak that the crop's survival winter [illegible] ter.

Thimet's approval comes just in time for fall wheat planting [illegible] more can buy it in granular form at agricultural supply companies [illegible] advance directing the granules evenly in the furrow as plants [illegible]. For the best application, use a grain seeder attached to the [illegible] drill.

When the insect sprouts, Thimet circulates through the sap [illegible] of the plant. When each fly feed on the young plant, they [illegible] lethal of poison.

Moore recommends that farmers use Thimet only under the con- [illegible] (1) if they must plant wheat before the recommended fly-free [illegible] date, or (2) if they do not plant a resistant variety. There [illegible] resistant varieties include Trivi, Abner and Monon.

Moore cautions that wheat planted on or after the recommended [illegible] operations across the Kansas fly counter the recommended [illegible] not in more advantageous to farmers who must plant wheat before the [illegible] recommended date.

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Moore emphasizes that Thimet protects against Hessian flies only during the fall. Treated fields will not produce any flies during this period and will resist fly invasions from neighboring untreated fields.

Treated fields will not produce Hessian flies next spring either. But they will no longer be protected against fly invasions from neighboring untreated fields that were planted early.

For the recommended fly-free seeding date in your county, contact your farm adviser, who is a county representative of the University of Illinois.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Reports Facts on Farm Corporations

URBANA--Ten Illinois farmers incorporated their businesses during the past year, as shown by a recent survey made by the University of Illinois. In addition, about 15 other Illinois farm corporations had previously been established.

Except for one farm incorporated during the depression, all reporting farms had been incorporated since 1949. They were scattered from Union county in southern Illinois to Stephenson county in the far northern part of the state. Of the 16 farms reporting, each was in a separate county.

The farm corporations were close family-type corporations, none having more than eight shareholders. Most of them had from two to four owners.

The incorporated farms had from 193 to 16,000 acres. Excluding one large corporation, the average was 1,266 acres. Eight had fewer than 1,000 acres and three had fewer than 500.

When asked about method of taxation, half of the farms chose to be taxed like a partnership. In general, the larger ones did not chose the partnership method.

Net income also varied greatly. Over half of the farms reported net returns of less than $20,000 a year, and five reported less than $10,000.

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Capital assets ranged from $38,000 to $1,000,000. Five corporations reported assets under $100,000. Eight ranged from $100,000 to $300,000, and three were capitalized at over $300,000. Some owned only operating equipment and inventory and leased their land.

Most corporations produced beef or dairy cattle, hogs or some other combination of livestock. Only one reported a straight grain operation, and one operated an orchard.

All but two farmers were satisfied with their corporations. Here are some of their comments:

"There are many advantages in estate planning; we can make small distributions of stock to members of the family. Passing title is easy."

"The operation of the business becomes more flexible."

"Incorporation tends to hold the farm together as a unit."

"Credit once established is more secure, there is more of it and borrowing is done by the corporation rather than the individual."

"A corporation stimulates record-keeping, and bookkeeping is simplified."

"One set of machinery serves two shareholders."

"Incorporation provides for continuous operation even though one member dies. Only the stock is subject to probate."

"Either shareholder can take over management if the other is ill."

"By incorporating, one assumes no personal liability."

"Division between capital and labor is no longer a problem."

"A larger operation has tax advantages."

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Here are some of the unfavorable comments:

"Illinois capital stock tax is an additional tax burden. State assessment seems to produce higher values than if capital stock were locally assessed."

"Desires of shareholders sometimes conflict. Business planning is not satisfactory.

"A corporation has some additional expense."

This survey of Illinois farm corporations was made by N. G. P. Krausz, U. of I. professor of agricultural law. For those interested in more information on farm corporations, he has written a circular on this subject. Copies may be obtained from any county farm adviser or from the College of Agriculture at Urbana.

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9/19/60

FOR IMMEDIATE RELEASE

Announce U. of I. Animal Science Staff Changes

URBANA--O. Burr Ross, head of the University of Illinois Department of Animal Science, has announced the appointment of Stanley Smith to the beef cattle research division.

At the same time Ross revealed the selection of D. E. Becker as head of the swine division. Becker, a member of the Illinois staff for 10 years, succeeds the late Stanley W. Terrill. Becker is widely known for his work in swine nutrition.

Turning to the extension staff, Ross reported the one-year appointment of W. F. Nickelson as one of the four Illinois livestock extension specialists. Nickelson temporarily replaces Terry R. Greathouse, who is working toward his Ph.D degree at the University of Kentucky this year.

Nickelson is a native of Freedom, Oklahoma. He received his B.S. degree from Oklahoma State University and his M.S. from Illinois. He is currently working toward his Ph.D. degree at Illinois.

In discussing Smith's appointment to the beef cattle division, Ross said that he replaces George W. Mitchell, who has joined the Kentucky staff. Smith's work will involve beef cattle nutrition research and graduate teaching.

He is a native of Huntington, West Virginia. He attended West Virginia University, receiving his B.S. in 1953 in animal science, his M.S. in animal nutrition in 1957 and his Ph.D. in agricultural biochemistry in 1959.

During the past year he has been taking post-doctoral work in Illinois' animal nutrition division.

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9/19/60

FOR IMMEDIATE RELEASE

Soybean Yield Uncertain

URBANA--Illinois farmers might find it profitable to store soybeans if this year's crop is smaller than the USDA's estimate, according to T. A. Hieronymus, University of Illinois grain marketing economist.

However, Hieronymust says that just how much the recent hot weather cut this year's soybean yield is anybody's guess.

Here's how the agricultural economist views the current soybean situation:

It is possible that the 1960 crop will be smaller than the Government Crop Reporting Service forecast of 566 million bushels made September 1. There is a carryover of 25 to 30 million bushels from the 1959 crop, making the total estimated supply about 590 million bushels.

A total supply of 590 million bushels might mean a price drop of a nickel a bushel to around $1.95 a bushel at harvest.

But this yield prediction was made before the latest September hot spell. If the crop is considerably smaller than the estimate, a fairly large price increase is likely next spring.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

College of Agriculture Names Advisory Committees

URBANA--Dean Louis B. Howard of the University of Illinois College of Agriculture has announced the names of 38 leaders in agriculture and industry who will serve on advisory committees for the coming year.

Committee members are recommended by the departments, and the appointments are approved by the President and the University of Illinois Board of Trustees. Appointments are effective September 1.

These advisory committees are appointed to assist the Dean of the College and the departments in keeping abreast of the needs of agriculture in research, teaching and extension.

Committee members usually meet once or twice each year with the various departments. Those appointed are as follows:

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(Editor: See attached list.)

EEW:HDG:mfb
9/22/60
NO

ADVISORY COMMITTEES
College of Agriculture
September 1, 1960

Agricultural Economics

L. L. Colvis, General Manager, Illinois Livestock Marketing Association, 116 Merchant Street (P. O. Box 868), Decatur	1 year
**S. R. Golden, Route 1, Flora	3 years
I. Frank Green, Vice President, Commercial National Bank, Peoria	1 year
*James L. Humphreys, R. R. 1, Herrin	3 years
Harvey J. Schweitzer, Ph.D., Malta	2 years

Agricultural Engineering

H. V. Deffenbaugh, Farm Manager, Citizens National Bank, Paris	2 years
**George W. Endicott, Ridgeview Farm, Villa Ridge	3 years
**Albert Michael, Odell	3 years
A. D. Oderkirk, Manager, Babson Farms, Inc., DeKalb	1 year
F. Guy White, Bob White Farms, Girard	2 years

Agronomy

Martin Burrus, Burrus Seed Farms, Arenzville	2 years
Maxwell Crawford, R. R. 1, Milford	2 years
*Delbert Scheider, Red Oak	3 years
A. G. Sieben, Sieben Hybrids, Geneseo	1 year
*Paul Trovillion, Brownfield	3 years

Animal Science

J. R. Fulkerson, Fulkerson Farms, Jerseyville - Honorary Lifetime Member	
Lloyd Hanna, Roseann Farms, Farmersville (Manager, Gietl Bros., Springfield)	2 years
Henry A. Longmeyer, Greenfield	2 years
Henry A. Simms, Albion	1 year
Harold B. Steele, R. R. 2, Princeton	1 year
**Ralph J. Thomas, Manager, Associate Hatchery Department, DeKalb Agricultural Association, Inc., Sycamore	3 years

Dairy Science

*John C. Alison, Alison Farms, Route 2, Quincy	3 years
Homer Curtiss, Stockton	2 years
*Harold E. Hartley, Route 5, Centralia	3 years
Ralph L. Nichols, Hebron	1 year
*J. George Smith, Oswego	3 years

Forestry

K. Starr Chester, Technical Advisor, Alton Box Board Company, P. O. Box 276, Alton	2 years
A. C. Foley, President, T. A. Foley Lumber Company, Paris	1 year
*Lorenz F. Tammen, Midwest Soil Testing Service, Box 168, Danforth	3 years

Horticulture (Food Crops)

**Frank Chatten, R. R. 2, Route 24, Quincy	3 years
George DeVries, DeVries Farm, 3560 W. 99th Street, Evergreen Park	2 years
**L. A. Floyd, D.D.S., Bradford Bank Bldg., Greenville	3 years
*Charles E. Geise, Manager, Agricultural Research Department, California Packing Corporation, P.O. Box 89, Rochelle	3 years
Ed Ridgway, Manager, Ridgway Farms and Greenhouses, P. O. Box 87, Herrin	2 years

Horticulture (Floriculture, Ornamentals)

*Walter E. Ahrens, Danville Gardens, 1307 Cleary Avenue, Danville (President, Illinois State Vegetable Growers' Association)	3 years
George K. Ball, President, George J. Ball Company, West Chicago	1 year
*Harris H. Blixen, Woodlawn Gardens, 1407 St. Louis St., Edwardsville	3 years
John Tures, 1500 Lee St., DesPlaines (Matt Tures Sons Nursery, R. R. 1, Box 313-A, Roselle)	2 years
*B. O. Warren, Warren's Turf Nursery, 8400 W. 111th St., Palos Park (President, Illinois Turfgrass Foundation, Inc.)	3 years

General Committee

**I. Frank Green, Agricultural Economics
**F. Guy White, Agricultural Engineering
*Martin Burrus, Agronomy
**Harold B. Steele, Animal Science
*Ralph L. Nichols, Dairy Science
*A. C. Foley, Forestry
*L. A. Floyd, Horticulture

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*New appointee.
**Reappointed.

FOR IMMEDIATE RELEASE

Pasture a Good Place for Feeder Cattle

URBANA--University of Illinois tests show that newly arrived feeder cattle placed on good pasture outperformed similar cattle placed in drylot.

Livestock extension specialist D. E. Walker reports that the University bought 70 calves in August 1959. All calves weighed about 400 pounds.

Twenty of the calves were immediately turned onto 10 acres of new legume-grass seeding. The remaining 50 received good-quality legume-grass silage in drylot.

Workers continued this program for two months.

Results showed that 20 of the drylot calves developed shipping fever. Another 12 developed foot rot. Gains above pay weight averaged 42 pounds per head.

On the other hand, no shipping fever or foot rot occurred among the pasture calves. And their gains above pay weight averaged 70 pounds per head.

With many feeder cattle arriving in Illinois now, cattlemen might consider placing them on pasture.

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9/22/60

Give a good place for feeder cattle

URBANA--University of Illinois tests show that most feeder arriving cattle placed on good pasture outperformed similar calves placed in lot.

Research extension specialist F. M. Wolter reports that the average bought 70 calves in August 1950. All calves weighed about pounds.

Twenty of the calves were immediately turned onto 10 acres of legume-grass pasture. The remaining 50 received good-quality brome-grass silage in drylot.

Workers continued this program for two months.

Results showed that 20 of the drylot calves developed scours. Another 17 developed foot rot. Calves gained per weight average pounds per head.

On the other hand, no scouring fever or foot rot occurred among the pasture calves. Their gains averaged per weight average pounds per head.

With many feeder cattle arriving in Illinois now, veterinarians recommend placing them on pasture.

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FOR IMMEDIATE RELEASE

DHIA Processing Center Is Big Hit With Dairymen

URBANA--The Dairy Herd Improvement Association record-processing center in Urbana is fast becoming a big hit among Illinois dairymen.

University of Illinois dairy scientist Gary Harpestad says more than 1,000 of the state's dairymen are letting the processing center's giant electronic computer keep track of their production records.

About half of the herds on test in Illinois are now enrolled in the program. And herds are being switched from field to central processing at the rate of about 50 to 60 each month.

Harpestad says the center's 650-IBM electronic computer can easily turn out monthly records on 80,000 cows during a normal 40-hour week.

He believes the computer will eventually handle records for all of the cows on test in Illinois.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Illinois Tests Favor Grinding and Rolling Wet Corn

URBANA--A University of Illinois beef cattle scientist announced today that in tests both rolled and ground high-moisture corn produced faster and more efficient gains than shelled corn.

At the same time, A. L. Neumann cautioned farmers that the workers had prepared the corn at feeding time. If they had rolled and ground the corn at ensiling time, results might not have been the same.

The tests compares the feeding value of rolled, ground and shelled high-moisture corn of excellent quality. The corn averaged 31 percent moisture.

Workers fed the corn, along with a protein supplement, hay and a mineral supplement, to heifer calves.

Results showed that heifers receiving rolled corn made the highest daily gains--1.72 pounds per head. Heifers on ground corn ranked second with gains of 1.58 pounds daily, while heifers that received shelled corn scored average gains of 1.55 pounds daily.

Neumann gave two reasons why the heifers did not make faster gains: (1) they were fairly fat when they started the test; and (2) rain dampened the feed several times, since it was fed in uncovered outside bunks.

The latter undoubtedly reduced feed intake. Heifers receiving rolled and ground corn ate 13.4 and 12.1 pounds, respectively, of corn

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daily. On the other hand, heifers on shelled corn ate some 14 pounds daily.

Most important, however, was the improvement in feed efficiency that grinding and rolling caused. Heifers receiving ground corn required only 618 pounds of feed for every 100 pounds of gain. Heifers eating rolled corn took 636 pounds, while heifers on shelled corn needed 757 pounds.

Feed costs followed the same trend. Heifers on shelled corn had the highest cost, $21.91, for every 100 pounds of gain. Heifers receiving rolled corn had the lowest cost, $19.85, or a difference of $2.06.

The ground corn produced gains costing $20.09, or $1.82 less than those on shelled corn.

Neumann says these costs do not include grinding or rolling charges or the cost of the mineral supplement. He firmly believes, however, that results of this test indicate that grinding and rolling pay. According to this test, grinding added 35 cents and rolling 32 cents per hundred pounds to the value of high-moisture shelled corn. Of course, if hogs follow the cattle, grinding or rolling would be less beneficial.

Rolled corn in this test was prepared daily, as fed, with a mill with corrugated rollers. The ground corn was put through a hammermill with a 1/2-inch screen.

Previous tests have shown that fattening cattle do not digest some 5 to 10 percent of the shelled corn in their rations. That is why Neumann and his associates undertook this test--to see whether grinding and rolling would reduce these losses.

It certainly looks as if they would.

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9/26/60

FOR IMMEDIATE RELEASE

Tranquilizers Sometimes of Questionable Value

URBANA--Most of the suggested mass uses of tranquilizers in beef cattle are of little or no benefit, and on occasion they may even be detrimental.

Dr. J. R. Pickard, University of Illinois extension veterinarian, says this is the conclusion drawn by the Journal of the American Veterinary Medical Association after surveying both published and unpublished research findings.

According to an article in the August 15 issue of the journal, scientists have found the mass use of tranquilizers beneficial only in certain aspects of beef cattle feeding. They are effective and economical in reducing shrinkage when calves are being weaned, and in some cases they facilitate feedlot adjustment and handling.

A number of other uses are now being widely "suggested," Dr. Pickard notes. They include tranquilizing beef cattle to reduce shrinkage associated with loading, unloading and transport; reduce bruising and injury incurred in transit; improve feed consumption and weight gains in feeder cattle; and reduce the incidence of shipping fever. These uses, the journal points out, have questionable value.

The benefits derived from the use of injectable tranquilizers are frequently offset by added handling time and cost of restraining cattle and administering the drug. Benefits are also minimized or eliminated by the cost of the tranquilizer itself.

In addition, inflamed areas sometimes develop at the injection site in cattle tranquilized before shipment. They become evident only

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on slaughter. Pounds of flesh must be trimmed from the carcasses of such animals to remove these areas. The carcasses must then be downgraded.

Tranquilized cattle sometimes bruise more than normally and are even crippled during shipment because they lie down and are trampled by standing cattle.

The widespread use of tranquilizers is fostered by the farmer's desire to protect his cattle investment. But Dr. Pickard points out this important fact: Tranquilizers can be a valuable supplement to good management practices, but they cannot replace such practices. He recommends consulting a veterinarian regarding proper use of these drugs.

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UNIVERSITY OF ILLINOIS
AGRICULTURAL CONFERENCES
Urbana, Illinois

COLLEGE OF AGRICULTURE and the
DIVISION OF UNIVERSITY EXTENSION

FOR IMMEDIATE RELEASE

Agricultural Industries Forum
Set For January 31-February 1

URBANA--"Meeting Change in Agriculture and Industry" will be the theme for the third annual University of Illinois Agricultural Industries Forum on January 31 and February 1, 1961.

General sessions featuring nationally known authorities are planned, along with special-interest groups. The following speakers have accepted invitations to appear on the general sessions:

Earl W. Kintner, chairman of the Federal Trade Commission, will speak on "How Much Control of Business by Monopolies and Government Can We Afford or Endure?"

O. V. Wells, director of the Agricultural Marketing Service of the U. S. Department of Agriculture, will discuss "The Economic Environment Confronting Agricultural Industries."

Irwin A. Cockrane, director of the University of Illinois Bureau of Business Management, will talk on "This Business of Wheel Spinning."

Nicholas Nyradi, director of the Institute of International Studies, Bradley University, will speak on "Competing on a World Market." He was secretary-treasurer of Hungary before he came to the United States.

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For immediate release

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the U. S. Department of Agriculture, will discuss "The Economic
vironment Confronting Agricultural Industries."

Irvin A. Cockrane, director of the University of Illinois
ureau of Business Management, will give an "Inside Business of Agri
usiness."

Glenville Spradl, director of the Institute of International
udies, Bradley University, will speak on "Operating in a World Ma
ve secretary-treasurer of Hungary before he came to the United
ates.

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Special sessions are scheduled for those interested in marketing livestock, grain, dairy products, poultry and eggs, machinery and equipment, chemicals, fertilizer, seed and feed.

Garner House, one of the men's residence halls, will serve as Forum headquarters. Rooms and meals will also be furnished there. The opening session starts at 9:30 a.m. January 31, and adjournment is scheduled for 12:30 p.m. February 1. E. E. Broadbent, professor of agricultural marketing, will serve as Forum chairman again this year.

Anyone who is interested in the complete program may write to the Department of Agricultural Economics, University of Illinois, 305 Mumford Hall, Urbana. Those who have attended previous Forums will receive programs as soon as arrangements are complete.

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FOR IMMEDIATE RELEASE

U. of I. Offers Short Course for Illinois Veterianians

URBANA--Veterinarians from Illinois will converge on the University of Illinois campus for two days of intensive training during the 41st annual Illinois Conference and Extension Short Course for Veterinarians at the College of Veterinary Medicine October 6 and 7.

The program will start with a discussion of beef cattle problems, therapy for pig anemias and farrowing problems in sows. U. of I. veterinarians and the Illinois veterinary practitioners who operate laboratories supplying specific pathogen-free swine will discuss the technical aspects of producing "disease-free" stock.

Speakers from Iowa State University, the Universities of Pennsylvania and Iowa and Ohio State University will present papers on the diagnosis and treatment of small-animal diseases. New anesthetic and surgical techniques will be shown via closed-circuit television.

The short course serves the needs of veterinarians for continuing professional education, giving them the latest information on preventive, diagnostic and treatment techniques and practices. After two days of review and discussion, the veterinarians will relax at class reunions, a banquet and a dance.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Get Animals to Diagnostic Laboratories Quickly

URBANA--Veterinarians at Illinois state diagnostic laboratories say that they must receive animals quickly in order to give a clear, accurate diagnosis.

They prefer one or more typically sick live animals or birds from an affected herd or flock, says Dr. E. I. Pilchard of the Urbana Diagnostic Laboratory. Otherwise, they will accept several animals that have been dead only a few hours.

According to Dr. Pilchard, during an examination or a post mortem the veterinarian is working against time. Corruptive forces in nature take over immediately upon death. Intestinal bacteria quickly penetrate surrounding walls and diffuse throughout the body, invading and destroying tissue.

Blood cells "fall apart" soon after death. Blood counts and some blood chemistry examinations, necessary to detect anemia and certain deficiency diseases and blood parasites, cannot be performed if cells have decomposed.

Dr. Pilchard emphasizes that the need for fresh specimens is especially important because some disease-causing organisms die quickly. The bacteria causing leptospirosis often die in an hour or less. Most viruses are also highly perishable. Veterinarians need live viruses, however, because they are the only ones that react to test and thus indicate the exact nature of the disease.

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Other disease-producing organisms have greater endurance. The erysipelas and pullorum bacteria may persist in the body from a few days to several weeks. But if the animal's body is decomposed, it may be extremely difficult or impossible to detect the infectious agent.

Diagnostic laboratory veterinarians also depend on what is termed gross pathology, which deals with bodily changes that are evident to the naked eye. Such abnormalities as abscesses, tumors, pneumonias, hemorrhages and changes in color or structure of tissues point to a disease cause.

Local veterinarians often perform gross pathology examinations on the farm. They then send tissue samples from specific organs to a laboratory to confirm a preliminary diagnosis.

If a large animal is sent to a diagnostic laboratory, a veterinarian must make the arrangements. The findings are then sent to the farmer through the local veterinarian. This procedure alerts the local veterinarian to infectious disease outbreaks in the areas he serves.

Animals dying suddenly on the farm should be taken to a laboratory within 3 hours after death in summer and within 24 hours in winter. Sheep should be taken immediately in both winter and summer. Their heavily insulated coats retain heat that causes rapid decomposition even in winter.

The emphasis on speed benefits the farmer, explains Dr. Pilchard. A live or a recently dead animal gives a much clearer picture of the disease or disease complex attacking a herd. He adds, "It's also much easier to work on an animal that isn't ripe."

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FOR IMMEDIATE RELEASE

U. of I. Self-fed Ewes Perform Satisfactorily

URBANA--University of Illinois tests show that ewes can maintain their weight and bloom satisfactorily, without getting too fat, even though they are self-fed.

Few sheepmen have ever self-fed ewes, explains U. S. Garrigus, head of the sheep division. Self-feeding usually runs up feed costs, reduces productivity and makes ewes too fat.

The U. of I. has licked these problems by loading 60 percent of a self-fed ration with finely ground corn cobs. Cracked corn, ground alfalfa meal, soybean meal and minerals completed the ration.

The experimental ewes received this same ration, with a few variations, during pregnancy and until their lambs were weaned. Before lambing they received more corn cobs and less cracked corn.

A similar group of ewes were hand-fed a corn silage, soybean meal, cracked corn and mineral ration during the same time. Before lambing they did not receive cracked corn.

Ewes on the two rations gained about the same before lambing and weighed almost the same at weaning. Lambs from the self-fed ewes, however, averaged three pounds heavier at weaning than lambs from the hand-fed ewes.

Garrigus adds that the self-fed ewes were more uniform in appearance because the slower and less aggressive ewes could eat all the feed they wanted.

On the basis of these results, he firmly believes that bred and lactating ewes can be satisfactorily self-fed. This method can reduce labor costs and might even reduce total feed costs.

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He also believes, however, that self-feeding is probably best suited to large sheep producers or to small producers who work part-time away from the farm and cannot devote much time to their flock.

Garrigus warns farmers that self-feeders must be designed to satisfactorily self-feed a mixture containing a high percentage of roughage. And grinding roughage is a dusty and difficult job unless a farmer can use modern equipment.

A complete report of this study and others will be presented at the University's annual Sheep Day on Friday, October 28. All interested persons are invited to attend.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

U. of I. Sheep Day Program Announced

URBANA--A program liberally sprinkled with research reports and experiences of sheep producers sums up the University of Illinois Sheep Day scheduled for October 28.

The program gets under way at 9 a.m. CDT with various demonstrations and exhibits at the Sheep Farm, south of Memorial Stadium.

At 10 a.m. the program shifts to the Stock Pavilion, where U. of I. staff members will report the following research studies: (1) Nitrate poisoning in sheep. (2) Do high-roughage fattening rations cause soft carcasses? (3) Identifying carcass quality. (4) Sire comparisons for market lamb production. (5) What's in a sheep's head? (6) Self-feeding bred and lactating ewes. (7) Wool pools--how and why? (8) 1960 results of the sheep production project.

After lunch, Nolan Nelson, sheep producer from Morris, will discuss "Commercial and Purebred Ewes on My Farm." William Heggemeier, Kirkland, will report on purebred and feeder sheep he uses in his farm operation.

Kenneth McMillan, a U. of I. freshman from Prairie City, will tell how he earned his college money by raising sheep. U. S. Garrigus, head of the sheep division, will report on "Sheep Breeding Research and the Future."

L. L. Felts, University of Wisconsin, will wrap up the program with a talk on "Breeding for Productivity."

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NO

FOR IMMEDIATE RELEASE

Rambouillet Lambs Have Low Death Loss Percentage

URBANA -- Fewer Rambouillet lambs died before weaning than lambs of three other breeds during a 37-year period at the University of Illinois.

U. S. Garrigus, head of the sheep division, estimates that about five million lambs die before weaning every year in the United States. This represents a loss of approximately 50 million dollars in gross farm income.

To provide more information on these losses, Garrigus and statistician H. W. Norton summarized the University's flock records from 1921 to 1957. The records covered 4,231 lambs of four breeds.

Norton and Garrigus found that Rambouillets showed an average death loss of 15 percent; Shropshires, 17 percent; Southdowns, 21 percent; and Hampshires, 23 percent. He also found that Hampshire lambs were the most susceptible to pneumonia. On the other hand, more Rambouillet lambs died from lack of milk. Shropshires and Southdowns did not show any particular trend in death loss.

Losses of single lambs averaged 15 percent compared with twin lamb losses of 23 percent. Norton points out that, for every extra lamb, the producer realizes only two-thirds of an extra lamb.

The flock records at Illinois are probably unique. During the entire 37 years only one shepherd, W. J. Hampton, took care of the sheep. Since the flocks are maintained primarily for teaching and demonstration, they are not greatly disturbed by experimental work.

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FOR IMMEDIATE RELEASE

Livestock Marketing Conference Announced
at University of Illinois

URBANA--More than 150 key livestock marketing men will meet at the University of Illinois College of Agriculture next Saturday, October 15, to get the latest information on livestock marketing, mechanization, disease control and price outlook from University of Illinois economists and animal scientists.

This is a one-day conference for livestock marketing personnel.

A tour of the University's swine farm conducted by H. G. Russell, livestock specialist, starts at 8:30 a.m.

The formal program begins at 9:45 a.m. in Room 135 Animal Sciences Laboratory with a welcome by H. G. Halcrow, head of the department of agricultural economics. During the morning program E. E. Broadbent will discuss changes in livestock markets. B. C. Breidenstein will show some variations in pork carcass values. USDA agricultural economist R. N. Van Arsdall will talk on mechanization in the feedlot.

In the afternoon, A. H. Jensen's topic is "A Different Approach to Swine Management and Disease Control." L. H. Simerl will discuss the influences of farm programs on livestock marketing.

M. B. Kirtley will close the conference with a discussion of the outlook for livestock prices.

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FOR IMMEDIATE RELEASE

NOTE TO EDITORS: This is the first of a number of stories we will be sending your way concerning National Forest Products Week October 16-22. Next week you will receive a special packet on the subject prepared by the UI Department of Forestry.

Illinois Farmers Could Benefit From Ideals
Behind National Forest Products Week

URBANA--President Eisenhower has proclaimed the week of October 16-22 as National Forest Products Week.

The week was set aside to point out the contribution our woodlands make to the national economy and to emphasize the scientific handling of our timber resources for the benefit of people throughout the country.

Illinois farmers can benefit from understanding the ideas and conditions behind National Forest Products Week, according to L. B. Culver, University of Illinois extension forester.

Culver points out that, although Illinois has long been a leader in grain and meat production, forest products in the state are paying off at less than one-third of their potential.

He says that 2 1/2 million acres of non-forested land in the state would be better suited to growing timber crops than to their present use.

In addition, almost four million acres of poorly stocked Illinois woodlands are growing at less than half of their capacity.

Most areas too poor to support other crops will produce good pine plantations. There is a good market for these trees, since Illinois imports almost 100 percent of the pines and other softwoods it uses.

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Culver believes that farm woodlands can and should pay their share of taxes and fixed expenses.

He points out that National Forest Products Week would be a good time for farmers who have forested areas on their farms to contact their farm adviser or district farm forester for help in woodland management and marketing.

With a little care, Illinois farmers can turn their woodlands into the asset they can and should be.

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VISUAL COMMUNICATION
Extension District Meetings
September, 1960

First Day

10:00 a.m. Introduction and presentation of course outline.

Sensory Perception--Learning is accomplished by the reaction of the brain to sense stimuli. The various senses and their actions and interactions will be studied.

1:15 p.m. Vision Determinants--The "seeing" ability of the eye depends upon visual acuity, brightness discrimination, and color discrimination. Instructors will present materials that will help your visuals meet these physical standards.

Perception Determinants--The brain may be compared to an electronic computer. It takes messages as perceived by the eye and translates them into fact and form. Certain rules govern perception, and an understanding of these principles will help in designing visuals.

Effects of Audio-Visual Communication--Almost everyone will admit that visual teaching is effective. Some of the reasons will be presented and discussed.

3:30 p.m. Visual Techniques--The list of visuals and their groupings is large and will be presented. Some are old; some new. We hope you will receive new ideas to take home.

Principles of Visual Design--This session will cover the steps for visualization. Factors to be discussed are visibility of design and minimum standards for good visuals.

7:00 p.m. Teaching With Pictures--This session will cover use of pictures, captions, and subject-matter content.

Think Pictures--A challenging session to help you see more potential in the pictures you make.

Materials Critique--This is an optional session for questions, critique, and discussion on your materials and problems.

Second Day

8:00 a.m. Utilization of Visual Aids--In this session materials will be presented on adaptability, advantages, disadvantages, and use of visual media.

10:30 a.m. Effective Presentations--How to select equipment and make effective physical arrangements are some of the points to be covered in this session.

1:15 p.m. Question Period--This unit will review material presented to form a visual checklist for your personal use. Units of the Communications Handbook from the Extension Editorial Office will be presented to participants.

3:00 p.m. Adjourn

NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

New Facilities Essential to
Advance Soil and Crop Research

URBANA--Although Illinois has been blessed with some of the richest soils in the world, their productiveness for future generations will be in danger unless we advance our knowledge of how to use them properly, a University of Illinois agronomist declared today.

M. B. Russell, head of the agronomy department, stated that, although the present food-producing ability of our soils appears adequate, the pressures of a growing population will require that the soils produce to their highest limits in the future. The research to benefit future generations must be done now.

Research gives us the know-how to manage our soils wisely and benefits all citizens of the state, Russell points out. But to carry out an effective research and teaching program requires a highly skilled staff and adequate buildings and laboratories.

A skilled scientist must have adequate space and tools to work with if he is to use his talents fully. "We cannot attract and hold a competent scientific staff unless we give them the facilities they need," Russell emphasized. "There is keen competition for good research men; and when other states supply better facilities, they are likely to get the most capable men."

The present agronomy department quarters are now located in Davenport Hall. With only minor changes, the department occupies the

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same area it had in 1923 despite a three-fold increase in staff since that time. The present facilities are not comparable with those in other agricultural colleges in the midwest.

Every citizen of the state, as well as the farmer and landowner, benefits from the research and services of the agronomy department, Russell points out. Illinois crop and soil scientists helped originate and develop hybrid corn and improved soybean, wheat and oat varieties.

Research in soil chemistry has led to proper systems of fertilizer use. Soil tests have been developed to show farmers how to use plant foods wisely. Illinois farmers now lead the nation in soil testing and fertilizer use. This research has led to lower cost production and higher quality food for everyone.

Students trained by crop and soil scientists will fill responsible positions as farm operators, farm advisers, agricultural teachers, soil conservation technicians, farm managers, seed producers and processors and many other positions in business, industry and research.

To continue advanced research and teaching, the University of Illinois has proposed a new plant science building and drawn up the plans for it. But funds have not been made available to construct the building.

The University has included the Plant Sciences Building on the list of most urgently needed buildings. Passage of the Universities Bond Issue on November 8 will be the quickest way to obtain these much needed facilities, Russell believes.

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FOR IMMEDIATE RELEASE

Rules on Highway Use of Wagons and Trailers Clarified

URBANA--Farmers should now be able to use wagons and trailers to haul grain to market without harassment from state highway police. A recent opinion by the Illinois Attorney General has clarified the rules on use of farm wagons and trailers on highways, reports Norm Krausz, University of Illinois professor of agricultural law.

The Attorney General has stated that rules on farm wagons and wagon trailers issued by the Secretary of State and the Department of Public Safety are in error. Here are the Attorney General's conclusions:

1. Farm wagons, wagon trailers or similar vehicles are not subject to registration when used in connection with agricultural, horticultural or livestock-raising operations. The agricultural use provides the test--the kind of towing vehicle does not determine whether the wagon or trailer has to be registered.

2. If wagons and trailers are used in agricultural pursuits, the owner's name, weight of vehicle and other identification requirements need not be painted on the trailer. Again the type of towing vehicle makes no difference in the rules.

3. Special equipment requirements, such as safety chains, tail lights, stop lights, turn signals, reflectors and brakes, do not apply to farm wagons and wagon trailers or like vehicles when used in agricultural, horticultural or livestock-raising operations. Lights are necessary, however, between sunset and sunrise.

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4. Maximum speed restrictions on trailers do apply to farm trailers.

5. Safety tests do not apply to farm wagons and wagon trailers if used primarily in agricultural operations.

Krausz believes the Attorney General's opinion is well written. There is still room for interpretation, however. For example, suppose a farmer uses a trailer on a 200-mile trip to get a breeding animal. This is certainly part of his livestock operations. Yet it seems sensible that reasonable safety requirements, including safety chains and stop lights, be met.

When farm wagons and trailers are used on highways only incidentally or occasionally and for short distances, the hazard may not be great enough to justify meeting all motor vehicle law requirements. However, extended travel on busy highways for any purpose would seem to warrant reasonable safety rules. Perhaps the rules should vary with the kinds of highways, Krausz concludes.

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FOR IMMEDIATE RELEASE

What Takes the Pop Out of Popcorn?

URBANA--Much to their chagrin, University of Illinois plant scientists cannot discover what takes the pop out of popcorn.

You see, not all popcorn pops. Although the average popcorn-eater doesn't realize it, this failure to pop is a major problem to Illinois farmers. They produce more popcorn than farmers in any other state except Indiana and Iowa.

To shed more light on the popping problem, W. A. Huelsen of the department of horticulture tackled a series of tests. He eliminated several environmental factors that do NOT affect popping. These factors included frost, drought, rain, temperature, stage of maturity of corn when harvested, soil fertility and mechanical damage.

Disease, of course, is known to prevent popping. But Huelsen couldn't determine why normal-appearing popcorn sometimes fails to expand and pop.

He admits that one difficulty is that nobody knows why popcorn pops in the first place. And nobody knows why some types of sweet corn do not pop.

Huelsen recently retired after serving as professor of vegetable crops for 37 years. Some 20 to 25 percent of the sweet corn grown commercially in the U. S. contains one or more inbred lines that he developed.

During the next few years, the popcorn work Huelsen started will be continued to find out why popcorn pops and why it sometimes doesn't pop.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Bond Issue Affects Ag College Teaching Program

URBANA--The Universities Bond Issue now facing Illinois voters indirectly affects the teaching program of the University of Illinois College of Agriculture.

Associate Dean Karl E. Gardner states that the college is unusual in that it is not overcrowded in terms of students. But agricultural students must take at least 40 percent of their courses in the College of Liberal Arts and Sciences. This college is extremely crowded.

Consequently the College of Agriculture may have to turn away students because they cannot take the required rhetoric, chemistry, botany, zoology, mathematics and other courses offered in the College of Liberal Arts and Sciences.

This would be extremely unfortunate, says Dean Gardner. With farming such a highly technical business today, young men who start farming need a college education more than ever before. And students who cannot return to a farm definitely need a college education to fit them for the many non-farm agricultural occupations.

Even though the College of Agriculture has space for students, Dean Gardner points out the need for improved teaching facilities. Instruction in soil, chemistry, agricultural engineering and other areas is severely handicapped by lack of modern facilities.

Dean Gardner is aware of the fact that some people oppose the bond issue. They propose raising the building funds through an improved system of taxes. He realizes that this idea is sound. But he fears that it will take at least 10 years to reform the taxing system.

To do a good job of educating Illinois' young citizens, buildings are needed now. High school graduates cannot be expected to wait 10 years for the college to get ready for them.

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FOR IMMEDIATE RELEASE

Need More College Training For Farm Youth

URBANA--Because of the rapid changes in agriculture, farm families must encourage their children to seek education and training for non-farm employment, since only about 15 percent of the boys on farms today will have the opportunity to operate farms when they are adults.

This is what Dean Louis B. Howard of the University of Illinois College of Agriculture told the annual conference of agricultural and home economics extension workers this week.

Since the greatest unemployment occurs among the untrained, it is vital that more of our farm youth go on to college or at least to vocational schools, he emphasized.

If farm boys are to enjoy at least equal employment opportunity with city boys, they must increase their talents through more education, Dean Howard suggested.

He also recognized that if only 15 percent of the farm boys become farmers, only about the same proportion of girls will be living on farms in the future.

Looking to the future, Dean Howard suggested these needs for extension workers:

1. Put emphasis on those 4-H activities that will be of greatest value to the 85 percent of the farm youth who will not farm as well as those who remain in farming.

2. Help farmers adjust to problems brought on by surplus production and land retirement programs.

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3. Help improve the quality of farm and home management demanded by keener competition and narrower margins.

4. Develop educational programs that will enable farm families to more fully understand the public affairs programs that affect their political lives.

5. Recognize problems in suburban areas, such as drainage, community planning, landscaping and gardening and recreation programs and work cooperatively with other groups and agencies in solving these needs.

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FOR IMMEDIATE RELEASE

Corn Harvest Losses Vary With Method

URBANA--Farmers who harvest their corn with the conventional ear corn picker suffer the highest harvest losses, research by U. S. Department of Agriculture scientists show.

V. W. Davis, USDA agricultural economist at the University of Illinois, cites these results from tests conducted in Iowa during 1959:

Total harvesting losses with the conventional picker averaged about 13.5 percent of total yield when corn was planted on May 1 and harvested November 4. When the corn was planted on June 10 and harvested November 28, the total loss was about 12.6 percent. More than half of this loss occurred as shelled corn when the snapping rolls removed the ears from the stalk.

When picker-shellers were used, total harvesting losses averaged 8.44 percent for the early planted and harvested corn. For the later planting, losses totaled 9.35 percent.

Corn combines showed up best in reducing total harvesting loss. In the early planted corn, losses averaged 4.55 percent; and in late planting, about 6.1 percent.

The lower harvest losses for the field shelling methods can help pay for the investment in this equipment, Davis points out. But of course the farmer who is considering a switch from ear to shelled corn harvesting must also have adequate volume, available drying facilities and a system for storing, marketing or feeding shelled corn on his farm.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Illinois Livestock Teams Nearly
Sweep American Royal Contests

URBANA--The University of Illinois livestock judging team snared first place Saturday, October 15, among 21 teams competing in the collegiate judging contest at the American Royal Livestock Show, Kansas City.

The Illinois 4-H team lost first place to Texas by one slim point in the 4-H judging contest. Ranking behind Texas and Illinois were Kansas, Oklahoma, Mississippi, Iowa and Indiana.

The University team, coached by W. W. Albert, also stood first in judging quarter horses, third in beef cattle, eighth in hogs and tenth in sheep. Their combined score in these four categories was highest of all the competing teams--making them the over-all winner.

Members of the collegiate team included Robert Bohlen, Moweaqua; William Beeler, McLean; Glen Truckenbrod, Mendota; Fred Bunting, Mahomet; and Byron Jones, Saybrook. Team alternates included Tom Young, Champaign; Scott McWhinney, Orion; and Blaine Shoemaker, Aledo.

In individual honors Bohlen stood third in total points and third in beef cattle. Beeler stood first in quarter horses, and Truckenbrod ranked fifth.

The Illinois 4-H team is coached by U. of I. livestock extension specialist Donald E. Walker. In addition to standing second in

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total points, the team also ranked first in judging beef cattle and third in sheep.

Team members include Eugene Skaggs, Lacon; Charles Bloomberg, Lynn Center; Mike Dumphy, Sullivan; and John Huston, Roseville.

Skaggs swept individual honors by ranking first in total points. He also stood first in beef cattle and third in swine.

Dumphy ranked third in sheep, and Bloomberg stood second in beef cattle and fifth in sheep.

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FOR IMMEDIATE RELEASE

Push-Button Farming Not Here Yet

URBANA--The business-minded farmer who knows how to best use what he already has is the one who will still be farming for a profit in the years ahead, Roy Van Arsdall, USDA agricultural economist, told key livestock marketing men meeting at the University of Illinois last week end.

Today we hear a lot about the "gadgeteering" farmer who is increasing volume and cutting labor costs by moving material with machines. But, Van Arsdall asked, is he taking advantage of the equipment and facilities he already has, and is he using equipment that will make him the most money?

Illinois cattle feeders are finding out that it is expensive to have machines stand idle six to eight months of the year. The capital tied up in seldom-used machines is not working for the greatest return per dollar invested. Automated cattle feedlots in the west are run like factories, Van Arsdall said.

The secret is finding the right combination of machines and production methods that will result in the greatest net farm income, Van Arsdall says.

Unloading silage by hand from an upright silo is hard work. Nevertheless, when labor is figured at $1 an hour, nearly 350 beef cattle are needed to justify an unloader for corn silage. If labor costs $2, then the unloader starts paying for itself with 150 cattle.

Farmers can choose from at least half a dozen methods for distributing feed. Economists have found that hand feeding is the cheapest method for herds smaller than 50 head.

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If the farmer is building a new feed lot, a mechanized bunker will pay for itself with 50 head. However, the self-unloading wagon is the most practical method for the average cattle feeder who wants to mechanize his present system. The self-unloading wagon fits in well if the buildings are scattered or if pasture feeding is part of the program. Mobile equipment may be the more practical solution on rented farms, and the versatility of mobile equipment can be an advantage on farms with other livestock enterprises.

Mechanical feeders are best with moderate-sized droves. If the mechanical bunk feeder requires hand labor or supervision while working, it loses advantage to the self-unloading wagon when drove size is larger than 200. If the operator is free to do other chores after starting the machinery, then the feeder is the less expensive method up to 500 head.

Labor-saving devices cannot help increase income unless funds are also available to purchase the livestock, feed supplies and other production items.

Capital needs are only 4 to 11 percent greater in fully mechanized systems for beef cattle, sheep and hog enterprises than in ones that rely on hand labor. However, an outlay for feed may be returned within a few days, while an investment in equipment may take 10 years to recover.

It is the man in management who must decide whether mechanization offers any advantages on his farm. Buildings, livestock, equipment, labor and feedstuffs are seldom combined in just the right proportions. New labor-saving equipment may permit profitable expansion, but a farmer should compare all his farming enterprises to know where equipment will help increase net income most, Van Arsdall said.

Van Arsdall spoke at the Saturday afternoon session of the Livestock Marketing Conference held at the U. of I. College of Agriculture.

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FOR IMMEDIATE RELEASE

Fall Weather Triggers Canine Distemper

URBANA--Cold, damp fall weather triggers the distemper virus that kills roughly 70 percent of the unvaccinated dogs it attacks.

This toll is unnecessary, says University of Illinois veterinarian Dr. Erwin Small. Vaccination against distemper is nearly 90 percent effective, and it usually lasts the dog's lifetime.

Distemper commonly attacks young dogs. Puppies are likely to contract the disease before reaching one year of age. For this reason Dr. Small recommends taking a puppy to a veterinarian when it is two months old.

The veterinarian may vaccinate at that time or take a Normograph Test. By indicating the amount of natural immunity the puppy received from its mother, this test tells the veterinarian the best time to vaccinate.

Mature dogs as well as puppies can catch distemper while in good health. Injuries, parasites or too little food, however, may lower an animal's resistance to the distemper virus.

Natural infection results from direct or indirect contact with a dog that has distemper or that is a carrier of the disease. Because some animals recover, veterinarians recommend testing females before breeding and whelping to show the degree of immunity they might give to newborn pups.

Some distemper vaccines provide a three-in-one protection, adds Dr. Small. They protect the puppy against hepatitis and leptospirosis as well as distemper.

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Small Animals Injected Canine Distemper

DRAMA--Cold, damp fall weather triggers the distemper virus at a rate roughly 70 percent of the vaccination dose it [illegible].

This fall is unnecessary, says University of Illinois veterinarian Dr. Erwin Small. Vaccination against distemper is nearly 90 percent effective, and is usually long-lasting for dogs.

Distemper commonly attacks young dogs. Puppies are largely immune to the disease during their recovering one year of age, but this immunity wanes. Small recommends taking a puppy to a veterinarian when it is [illegible] this old.

The veterinarian may vaccinate at that time or take a more [illegible] test. By injecting the amount of natural immunity the puppy [illegible] from its mother, this test tells the veterinarian the proper [illegible] of vaccination.

Mature dogs as well as puppies can catch distemper while [illegible] health. Injecting, particular if the little good, however, may [illegible] an animal's resistance to the disease virus.

Natural infection results from direct or indirect contact [illegible] by the dog distemper or that is a carrier of the disease. Modern [illegible] vaccines, veterinarians recommend taking frequent [illegible] feeding and watering to show the degree of immunity some might give [illegible] from pets.

Some distemper vaccines provide a three-year protection, [illegible] or, small. They protect the puppy against hepatitis and leptospirosis as well as distemper.

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[illegible]
[illegible]

FOR IMMEDIATE RELEASE

Workshops Announced for FFA Chapter Reporters

URBANA--Nearly 500 reporters from Future Farmer of America chapters throughout Illinois will attend one of five "Reporter Workshops" during the next two weeks.

Donald Coil, executive secretary of the Illinois FFA, announces that the workshops are designed to help reporters do a better job of getting chapter news to the community.

Reporters will receive suggestions for (1) writing news stories, (2) preparing radio interviews and talks, and (3) taking more effective pictures.

Here's the schedule for the workshops: Princeton, Farm Bureau Building, November 1; DeKalb, Farm Bureau Building, November 2; Petersburg, Petersburg High School, October 26; Champaign, University of Illinois, November 4; and Mt. Vernon, Central Church of Christ, October 25.

The workshops will be presented by Extension Editorial Office staff members of the University of Illinois College of Agriculture.

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NO

FOR IMMEDIATE RELEASE

Investigate Source of Pet Skunks

URBANA--Only skunks bred and raised in captivity and properly immunized against rabies should be used as pets, says University of Illinois veterinarian, Dr. George Woods.

These animals, with names like Petunia, Lilac, Misty, Taboo, and just plain Stinky, are increasingly popular house pets throughout Illinois. But the source of these pets is a source of concern to veterinarians and public health officials.

At least one southwestern dealer made a practice of trapping wild, pregnant skunks and nursing litters. After weaning the young in captivity, they were sold as pets.

Wild skunks are an important rabies reservoir in Illinois and throughout the United States. They comprise roughly 21 percent of the total number of rabid animals reported annually. Dr. Woods adds, however, any captured wild animal may have been exposed to rabies. Because the incubation period of this disease varies, animals can develop rabies as long as six months after capture.

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FOR IMMEDIATE RELEASE

Corn Price Drop Likely; Suggests Using Government Loan

URBANA--A University of Illinois agricultural economist today recommended that farmers store their corn at harvest if they have storage space.

T. A. Hieronymus reported that very high yields will force some farmers to sell corn at harvest and prices will drop sharply. But prices will show some recovery after harvest.

Here is how Hieronymus appraises the present corn situation:

This year's crop is estimated at 4.25 billion bushels. It will not all be used up so the carryover will further add to the surplus stocks a year from now.

Although prices will drop due to harvest time selling, they should regain some of the loss after the crop is put under cover. Prices will probably get back up to 95 cents a bushel soon after harvest on east central Illinois farms.

Corn is of excellent keeping quality so that farmers can qualify for the loan at $1.06 a bushel average.

The government will sell a lot of corn during the next year because of the large amounts of poor keeping quality grain it holds.

Prices may not reach the loan level anytime during the year ahead as a result of the large crop and heavy government selling.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Universities Bond Issue Could Affect
Future Illinois Farm Engineering Development

URBANA--Efficient power machinery, modern farm drainage systems and automatic feed-handling equipment are just a few examples of the important contributions agricultural engineering researchers have made to today's modern agriculture.

Many of these new developments sprang from research work in the University of Illinois Department of Agricultural Engineering. Others were the direct result of training received at the University.

Frank Lanham, head of the department, points out that with today's high costs of farming it is becoming more important each year that new labor- and expense-saving equipment be made available to Illinois farmers.

And, as in the past, the key to developing these devices is a strong teaching and research program in agricultural engineering. The U. of I. ag engineering department has that kind of program. But Lanham explains that it is becoming more difficult each year to keep research and training at present levels.

The reason? It's mainly the poor facilities now available to the engineers.

The present main agricultural engineering building on the U. of I. campus was built as a "temporary" structure in 1905. The

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tractor laboratory, built in 1923, provides a rough-finished location for engine and tractor work.

Shop courses and laboratories filled with running machinery directly below classrooms often cause a noise level that makes effective teaching difficult. And lack of space and facilities often hamper research programs.

In spite of these and other handicaps, agricultural engineers at the University of Illinois have led the way in farm sanitation research, farm electrification, power extension and applications, harvesting methods for soybeans, design and development of the corn picker-sheller and more recently in modern farm building design.

But, if this work is to continue at a high level, ag engineering researchers and students need better and more modern facilities, Lanham explains. More than twice as many agricultural engineers are employed in Illinois as in any other state. However, physical facilities for training these engineers are often superior at neighboring institutions.

What is the answer to the problem?

Lanham says the Universities Bond Issue now facing the people of Illinois is one key to solving the problem. "The passage of the bond issue isn't the whole answer," Lanham points out. "But it could be a major key to getting the modern facilities the University's agricultural engineering students and research staff need and should have."

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HDN:mf
10/24/60
NO

FOR RELEASE, FRIDAY P.M., OCTOBER 28, 1960

Grundy County Farmer Finds That Sheep Work Well

URBANA--A farmer from Grundy County, Illinois, has already learned what many other farmers are finding out--that sheep are a good investment on farms limited by labor and capital.

Nolan Nelson of Morris told today's audience at the University of Illinois Sheep Day that his 55 ewes grossed an average of $39.86 this year. That adds up to $2,192.30.

He said that "with a small amount of labor and capital, we haven't found any other livestock program that works this well for us."

Nelson marketed 90 lambs from the 55 grade Columbia ewes. The ewes were bred so that lambs began arriving in late January and February. This allowed plenty of time to get them ready for the early market.

Nelson said he feeds a creep feed as soon as the lambs will eat. Then he feeds a commercial pelleted feed until they reach market weight. He's found that lambs start eating pellets earlier than a mixed feed and they eat more and stay on feed regardless of weather.

He gets back the extra cost of the pelleted feed by marketing his lambs early.

During the day Nelson pastures the ewes, keeping the lambs in drylot. In this way the lambs rest and eat all day instead of chasing after their mothers. Keeping lambs in drylot also prevents worm problems.

Nelson markets his lambs as soon as they reach 85 pounds. This year he sold his first lambs on May 18 for 27 cents a pound. He sold the last four on July 27 at 21½ cents.

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PAC:mf
10/24/60

FOR RELEASE, FRIDAY P.M., OCTOBER 28,1960

Sheep Day Audience Hears Report on Nitrate Poisoning

URBANA--The audience at today's University of Illinois Sheep Day learned that a possible relationship may exist between nitrate, vitamin A and carotene in nitrate poisoning cases.

Research assistant J. H. Sokolowski based his report on a recent study. This study was another in a series directed toward learning how nitrate poisoning can be prevented in sheep.

Sokolowski found that some relationship may exist between these three factors. But there were no significant indications that vitamin A or carotene, or a combination of the two, could be used in preventing nitrate poisoning. Carotene is the precursor of vitamin A.

He admitted that other research indicates that extremely high levels of vitamin A may have some benefit in treating nitrate poisoning. But Sokolowski was not using such high levels. He merely wanted to see the effect of nitrate on lambs receiving recommended levels of vitamin A or carotene, or a combination of the two.

He also pointed out that the ration used in this test featured 50 percent dehydrated ground corncobs plus ground oats. Rations in previous nitrate poisoning tests used 30 percent corncobs fed with ground yellow corn. Lamb gains on the corncob and yellow corn ration averaged almost twice as high as gains on this year's corncob and oats ration. This happened even though all lambs received the same experimental levels of nitrate.

This means that lambs receiving a poor quality ration, low in readily available carbohydrates, might be more susceptible to nitrate poisoning than lambs on adequate rations.

Nitrate poisoning causes animals to suffocate, since the oxygen content of the blood stream is decreased. Animals usually contract this "disease" by eating plants containing toxic levels of nitrate. There are also other causes.

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10/24/60

FOR RELEASE, REPLY P.M. [illegible]

[illegible] Influence Study Report on Rickets Prevention

[illegible] Chicago--[illegible] of today's University of Illinois Medical [illegible] uncovered that a possible relationship may exist between vitamin A and cretinism in infants posessing rickets.

Research assistant Dr. [illegible] Sonntagsen based his report on a [illegible] study. This study was another in a series directed toward [illegible] how rickets poisoning can be prevented in [illegible].

Researchers found that some relationship may exist between [illegible] these factors. But there were no significant indications that [illegible] A or carotene, or a combination of the two, could be used in [illegible] rickets poisoning. Therefore as the prevalence of vitamin A [illegible] be doubted that other research indicates that extremely high [illegible] of vitamin A may have some benefit in treating rickets poisoning [illegible] such has not been such high levels. [illegible] the effect of rickets on lambs successfully [illegible] vitamin A or carotene, or a combination of the two.

He also pointed out that the nation used [illegible] over ten [illegible] 50 percent contaminated ground [illegible] ground feed. Partly [illegible] rickets poisoning feeds used by [illegible] fed with [illegible] yellow corn. Corn grains on the cobs and yellow corn [illegible] higher albumen value [illegible] as high as twice in this year's [illegible] and [illegible]. This happened even though all lambs received the same [illegible] levels of rickets.

This means that lambs receiving a good quality ration, [illegible] readily available [illegible], might be very susceptible to rickets [illegible] lambs on adequate rations.

Rickets poisoning causes [illegible] to suffocate, since the [illegible] content of the blood stream is decreased. Animals usually [illegible] "disease" by eating plants [illegible] Rickets lowers [illegible] to die from other causes.

[illegible]
[illegible]

NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Dates For Custom Spray School Announced

URBANA--H. B. Petty of the University of Illinois has announced that the 13th annual Custom Spray Operators' Training School will be held January 25-26, 1961.

Petty, an extension entomologist, says that the school is sponsored by the U. of I. and the Illinois Natural History Survey.

It attracts some 700 persons who are associated with the agricultural chemical industry. They come to hear the latest findings in the development and application of chemicals.

More details on the program will be released when it is completed.

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PAC:mfb
10/27/60

FOR IMMEDIATE RELEASE

Vegetable Growers Announce Meeting Plans

URBANA--A panel of top-notch speakers headlines the Illinois State Vegetable Growers Convention November 9-10 at Southern Illinois University, Carbondale.

One of the featured speakers is T. C. Broyer of the University of California. He is world-famous for his knowledge of plant nutrition. His discussion concerns the role of nutrient elements in plant nutrition and deficiency symptoms.

J. W. Courter, program chairman from the University of Illinois, reports that scheduled topics include (1) new crops for southern Illinois, (2) pesticide residue problems, (3) a look at new developments in vegetable marketing, (4) plastic greenhouses in Kentucky, (5) Michigan's system for fertilizing greenhouse vegetables and (6) chain-store practices in buying fruits and vegetables.

Other speakers include S. H. Wittwer and John Carew, Michigan State University; George A. Marlowe, Jr., University of Kentucky; George C. Decker, Illinois Natural History Survey; and Russell Cole, Indiana Chain Store Council, Indianapolis.

All interested persons are invited to attend the sessions. The first one kicks off at 10 a.m. on Wednesday, November 9.

The meeting is jointly sponsored by the Illinois State Vegetable Growers Association, the Southern Illinois Small Fruit and Vegetable Growers Association, Southern Illinois University and the University of Illinois Agricultural Extension Service.

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10/27/60

FOR IMMEDIATE RELEASE

Dwarf Corn Challenges Regular
Corn For Silage In UI Tests

URBANA--Dwarf corn silage is making a strong bid to replace regular corn silage as the farmer's best source of important roughage nutrients.

University of Illinois dairy scientist J. H. Byers says dwarf corn was easier to chop than regular corn in tests this fall. And the pint-sized corn yielded nearly as much silage and dry matter per acre.

The research also indicates that dwarf corn may show a higher feeding value than its taller cousin when the two are compared in feeding trials this winter.

Byers says regular corn on the U. of I. dairy farm yielded 20.6 tons of ensilage and 6.6 tons of dry matter per acre this fall. Dwarf corn yields were slightly lower--averaging 18.4 tons of silage and 5.5 tons of dry matter.

However, Byers believes the dwarf corn TDN yield per acre may equal that of the regular corn even though total green matter yields were less.

Analysis of the dwarf corn plants shows a 5 percent higher proportion of ears to the rest of the plant. And it shows 5 percent less stalk. Since the stalk is the least digestible portion of a plant, researchers feel that the dwarf corn will be more digestible than the regular corn. This should give higher, more efficient livestock gains.

Recent dwarf corn feeding trials by U. of I. beef cattle researchers support this theory. The beef researchers found that steers

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receiving dwarf corn silage gained slightly better than steers receiving regular corn silage in both fattening and winter rations.

The dairy researchers believe they can cut green matter yield differences considerably by boosting dwarf corn plant population per acre. Next year they plan to increase per acre plant population from 16,000 to 20,000 by reducing the distance between plants and using narrower rows.

With more plants per acre, dwarf corn may easily turn out higher TDN per acre than regular corn, Byers explains.

The mechanical advantages of harvesting dwarf corn were quite apparent. The tall corn tended to lodge and fall over. This gave an uneven flow into the chopper and produced an uneven cut.

The dwarf corn stood straight. Researchers were able to keep a constant flow of corn running into the chopper--and at a faster rate. This shortened the cut on the ensilage and resulted in better packing in the silo.

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10/27/60

FOR IMMEDIATE RELEASE

Breeding Oats Resistant to "Yellow Dwarf"

URBANA--More than 3,000 strains of oats from all over the world have been tested for their ability to withstand attacks of yellow dwarf disease at the University of Illinois.

In 1959 Illinois farmers lost almost $25 million worth of oats to this virus villain. While the 1960 Illinois crop was not so severely damaged, researchers emphasize that potential damage can not be underestimated. This year the northeastern states were hard hit.

The virus responsible for the disease is called barley yellow dwarf virus (BYD) because it was first discovered to cause yellowing and dwarfing in barley. It is spread by nine species of aphids. As virus-carrying aphids feed, they infect healthy plants. So far as the researchers know, the virus is neither seed- nor soil-borne.

It was some time before aphids were associated with BYD. In fact, aphids may be gone as long as three weeks before the disease is noticed. And an aphid infestation doesn't always mean that the oat crop will be hit by BYD.

Early symptoms of the disease are yellow-green blotches that appear near the tips of the leaves and then enlarge and extend downward to the stems. Affected parts of the plant may turn red. Root systems are damaged, and in severe cases the plants die. Infection is most serious in seedlings, which are badly dwarfed and finally killed by the disease.

Developing varieties that are tolerant to the virus seems to be the best approach to controlling the disease, Henryk Jedlinski, USDA

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plant pathologist, said in the current issue of Illinois Research. Jedlinski, who is working with C. M. Brown, University of Illinois oat breeding specialist, explained that during a five-year study virus-carrying aphids were allowed to feed on each oat entry. The scientists selected the entries that withstood the disease best in this test.

Albion, an oat variety grown in the north-central states about 30 years ago, showed the highest BYD tolerance. However, it is susceptible to other diseases, has weak straw and produces poor quality grain.

One way to improve Albion is to cross it with adapted varieties. New varieties will not be available from this method until a cross can be slected that has the characteristics of the adapted varieties, as well as Albion's ability to tolerate BYD virus.

However, use of what plant breeders call a "backcross" will probably make a well-adapted oat variety with BYD tolerance available within a few years.

The researchers point out that there are different virus strains of BYD. They must still investigate the effects of these different strains on the performance of varieties now tolerant to the tested strain.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Research Director Urges Yes Vote on Bond Issue

URBANA--The associate director of the Illinois Agricultural Experiment Station this week urged citizens to vote yes on the Universities Bond Issue.

Writing in the current issue of Ag Alumni News, Tom S. Hamilton stated that the voters of Illinois would decide by their votes whether or not those seeking a college education just three years from now, and thereafter, would be able to do so. If the bond issue does not pass, only a few of the increased number of applicants will be able to go to college.

"If the bond issue does not pass, state tax funds will be so depleted by urgent demands for educational buildings that little, if any, will be available for research. Without research, education would soon become static because all new knowledge comes from research or creative efforts," Hamilton pointed out.

"Without research, educational standards could not increase, and there would be no improvement in any of our comforts, our conveniences, our industries, our defenses, our medical care or our children's health."

If the bond issue fails to pass, Hamilton predicts that competition will be so great between those seeking funds for educational buildings and those seeking funds for research that neither need can be satisfactorily met.

Without adequate funds for both school buildings and research, the United States will quickly become a second-rate nation, unable to compete with first-rate nations with respect to standards of living and health, national economy, national defense and national ideology, Hamilton emphasized. An educated nation will never become slaves, he concluded.

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10/31/60
NO

FOR IMMEDIATE RELEASE

January to June Fertilizer Sales Second Largest

URBANA--Total plant food sales in Illinois for the first six months of 1960 were the second largest ever reported for any six-month period.

However, sales were almost 10 percent under the record-breaking first six months of 1959. Wet weather played havoc with truck spreading and meant a lower tonnage of bulk-applied fertilizer this spring.

There is a trend toward higher analyses in mixed fertilizers, L. T. Kurtz, University of Illinois agronomist, said. About three-fourths of the mixed fertilizer tonnage was in 10 leading grades averaging 39.1 units of plant food. This compares with a 38.0 average for the same period in 1959.

About one-fourth of the mixed fertilizer sold was in a 1-4-4 ratio. The report, issued by the University of Illinois department of Agronomy, showed that 418,473 tons of mixed fertilizers and 158,837 tons of rock phosphate were sold from January 1 to June 30.

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EEW:mfb
10/31/60

FOR IMMEDIATE RELEASE

UI Farm Structures Day Set For November 17

URBANA--Latest developments in panelized farm buildings and conversion of old farm buildings to grain storage highlight the 1960 Farm Structures Day program at the University of Illinois Thursday, November 17.

Other high-interest features on the program include discussions on insulation and ventilation of livestock shelters, crib remodeling with plywood, and tips on prefabrication.

Agricultural engineer Don Jedele points out that panelized farm buildings are receiving a lot of attention throughout the state. Jedele is chairman of the day's program.

The buildings are especially suited for hog houses, cattle sheds and other livestock shelters.

The fabricated panels can be made by local lumber dealers. The buildings are easy to fabricate and erect. And they can take a lot of punishment from livestock and weather.

Of equal interest will be the discussion of farm grain storage. Agricultural engineer Gene Shove will compare the cost and service life relationships between rigid frame, tilt-up concrete and other new types of grain-storage structures with the more conventional types found on many Illinois farms.

Shove will also have on display a model of the self-supporting portable walls he has developed to adapt old farm buildings to corn and small-grain storage.

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The "L"-shaped panels are made for use in pole frame, rigid frame or stud construction.

Registration for Farm Structures Day begins at 8:30 a.m. The program starts at 9:15. A registration fee of $5.00 will cover the cost of lunch and program proceedings.

All lumber and building dealers and others interested in farm buildings are invited to attend.

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10/31/60

NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

New Course Offered at U. of I. Ag Short Course

URBANA--A new course covering agricultural policy and programs headlines the 10th annual University of Illinois Winter Short Course in Agriculture.

Warren Wessels, assistant to the Dean, College of Agriculture, describes the new course as "analyzing past and present programs affecting agriculture." It will also outline the role of the farmer and farm organizations in developing policies in a democratic society.

The short course is designed for young farmers who are interested in new farming information but who cannot attend college on a regular basis. Dates are February 6 to March 17.

Students who attend will learn new techniques in managing livestock and dairy cattle. They will get training in selecting livestock. They will also learn how to manage soils and crops to get maximum yields. And they can study agricultural marketing and prices, farm management and farm law.

Anyone 18 years of age or older may attend the short course. This includes women as well as men. In the past, ages have ranged from 18 to 65 years, but most students have been between 18 and 23 years.

For more information, write to Wessels at 104 Mumford Hall, Urbana, Illinois.

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PAC:mfb
11/2/60
NO

FOR RELEASE WEEK OF NOVEMBER 7, 1960

Water Evergreens Before Ground Freezes

Since evergreens stay active during the winter while other plants are dormant, they need a good supply of water before the ground freezes.

Soak the soil to a depth of 6 to 8 inches sometime around November 1. This advice comes from William R. Nelson, University of Illinois landscape specialist.

When the water supply runs dry during the winter, evergreens respond by turning brown.

To further protect evergreens, Nelson advises mulching. This reduces the effect of alternate freezing and thawing on the root system.

Nelson suggests using ground corncobs. Apply them 3 or 4 inches deep. Leaving this mulch on next spring will help to reduce weeds and conserve moisture.

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NO

FOR RELEASE WEEK OF NOVEMBER 14, 1960

Local 4-H'er To Make Club Congress Trip

_____ county 4-H'er __(Name)__ will receive one of the highest honors offered in 4-H Club work when he attends the 39th National 4-H Club Congress in Chicago November 27 through December 2.

_____ is one of 30 young Illinois delegates selected to make the Club Congress trip. The delegates were chosen from a field of more than 72,000 Illinois members.

They will join some 1,900 other delegates and leaders from the United States and about 20 other countries at the big six-day conference.

Group discussions, addresses by prominent speakers and talks with delegates and visitors from foreign countries are educational highlights of the congress.

Entertainment features include a "pop" concert by the Chicago Symphony Orchestra, featuring the 4-H Club members as soloists, and a Friendship Party at the Aragon Ballroom.

Club Congress is conducted by the state extension services and the U. S. Department of Agriculture in cooperation with the National 4-H Service Committee, Inc. All delegates are award winners in their respective states.

(Editor's note: A list of the 1960 Illinois 4-H Club Congress delegates is attached.)

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11/2/60

1960 ILLINOIS NATIONAL 4-H CLUB CONGRESS DELEGATES

Anne Akin	R. 1, St. Francisville	Lawrence
Carol Anderson	R. 1, Chapin	Morgan
Frank Beatty	R. 2, Avon	Fulton
Brenda Bewley	R. 2, Glasford	Peoria
Charles Bicklehaupt	R. 1, Mt. Carroll	Carroll
Tom Bidner	R. 1, Mahomet	Champaign
Ronald Boldt	R. 1, Seneca	LaSalle
Gary Coates	R. 2, Neponset	Bureau
Duane Dean	R. 1, Griggsville	Pike
Eugene Dillow	R. 1, Jonesboro	Union
Brenda Fisher	RFD, Macedonia	Franklin
Ron Gehrig	R. 1, Wyoming	Marshall-Putnam
Galen Haegele	Barnhill	Wayne
David Harms	R. 1, Pleasant Plains	Sangamon
Patsy Kessler	R. 1, Mode	Shelby
Kenny McMillan	R. 1, Prairie City	McDonough
Susan Miller	Cisco	Piatt
Mary Jo Oldham	306 Posey Court, Shawneetown	Gallatin
Lee Oltmanns	R. 2, Nokomis	Montgomery
Don Pritchard	R. 1, Maple Park	DeKalb
Clara Jane Raplus	R. 1, Box 163, St. Charles	Kane
James Richter	R. 1, Mascoutah	St. Clair
Chris Scherer	Claremont	Richland
Elaine Steimel	R. 2, DeKalb	DeKalb
Judith Sudheimer	R. 2, Carbondale	Jackson
Marilyn Tomlinson	125 E. Clinton, Rushville	Schuyler
Beverly Torok	R. 2, Monee	Will
Nancy Vogler	R. 1, Sciota	McDonough
Margaret Williams	R. 1, Stockton	Jo Daviess
Shirley Yana	Thawville	Ford

NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

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Students who attend will learn new techniques in managing livestock and dairy cattle. They will get training in selecting livestock. They will also learn how to manage soils and crops to get maximum yields. And they can study agricultural marketing and prices, farm management and farm law.

Anyone 18 years of age or older may attend the short course. This includes women as well as men. In the past, ages have ranged from 18 to 65 years, but most students have been between 18 and 23 years.

For more information, write to Wessels at 104 Mumford Hall, Urbana, Illinois.

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PAC:mfb
11/2/60
NO

FOR IMMEDIATE RELEASE

Dwarf Corn Challenges Regular Corn for Silage in UI Tests

URBANA--Dwarf corn silage is making a strong bid to replace regular corn silage as the farmer's best source of important roughage nutrients.

University of Illinois dairy scientist J. H. Byers says dwarf corn was easier to chop than regular corn in tests this fall. And the pint-sized corn yielded nearly as much silage and dry matter per acre.

Byers believes the per acre yield of total digestible nutrients from dwarf corn may equal that from regular corn even though total green matter yields are less.

That's because analysis of the dwarf corn plants shows a 5 percent higher proportion of ears to the rest of the plant. And it shows 5 percent less stalk. Since the stalk is the least digestible portion of a plant, researchers feel that the dwarf corn will be more digestible than the regular corn.

Recent dwarf corn feeding trials by U. of I. beef cattle researchers support this theory. The beef researchers found that steers fed dwarf corn silage gained slightly better than steers receiving regular corn silage in both fattening and winter rations.

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10/3/60

FOR IMMEDIATE RELEASE

Inside Story on Wholesale Vegetable Buying

URBANA--The vegetable grower who wonders what makes his regular buyer decide to buy from someone else can find out why at the Illinois State Vegetable Growers Convention, says J. W. Courter, University of Illinois small fruits specialist.

Courter is program chairman of the convention, which will be held November 9-10 at Southern Illinois University.

Courter says that John Carew of Michigan State University spent six weeks living with the men who make the fruit- and vegetable-buying decisions for one of the nation's largest food chains. Carew is one of an impressive list of speakers lined up for the convention.

"Produce buyers prefer to deal with volume organizations and experienced salesmen," he says. "Growers may have to cooperate if they are to solve the mass distribution marketing problem."

Buyers cannot inspect individual loads, so they must be able to trust the shipper. They give more business to the grower who frankly admits, "I haven't anything you would want. The quality is off, so I'm taking it down to the market."

Carew will have plenty more "inside information" to give the convention. The first session begins at 10 a.m. on Wednesday, November 9.

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11/3/60
NC

FOR IMMEDIATE RELEASE

X Equals Water Flow

URBANA--Higher mathematics has been recruited to help describe how water flows through soil.

A topic more complicated than it looks, soil water flow is the object of a $34,000 three-year research contract awarded to the University of Illinois department of agronomy by the U.S.D.A. Agricultural Research Service.

Among other things, scientists will be feeding "flow" equations and other such data into giant electronic computors. Expressing the dynamics of water flow mathematically is hoped to lead to greater understanding about such things as drainage and infiltration of water through the soil, and its flow to plant roots.

Arnold Klute, soil physicist, is project leader. His co-worker is mathematics professor E. J. Scott.

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RFH:cm
10/3/60
NO

NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Surprise Yields Recorded From Morrow Plots

URBANA--The 1960 yields on the famed University of Illinois Morrow Plots produced two surprising results. A plot growing continuous corn since 1876 with no soil treatment jumped 24 bushels over 1959. Yields averaged 49.7 bushels an acre, about double that of 1959 and the highest since 1902. On another continuous corn plot receiving complete soil treatment since 1955, the yield of 96 bushels was 40 bushels above the poor showing made in 1959 and more in line with past performance.

Agronomists L. B. Miller and A. L. Lang explain the 1960 results in this way: In each year following severe drouth, corn yields on the untreated plot have bounced back well above those of the previous year. In 1935, corn yields on this plot were 28 bushels above those of the year before. In 1937, they were 29 bushels higher. So the 24-bushel recovery in 1960 over 1959 is not too surprising. Lack of moisture limits the withdrawal of plant food from the soil. The next year, when rain is more plentiful, the crop responds to the extra nutrients that are available.

On another plot where the agronomists have used a complete plant food treatment only since 1955, yields averaged 96 bushels an acre. But in the dry season last year, they dropped to 56 bushels. The drop last year was believed to be due to lack of organic matter in the soil resulting from the many years of continuous corn without any

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soil treatment. With more adequate moisture during the first part of the growing season this year, the soil treatment produced reasonably good yields.

The top 1960 corn yield on the Morrow Plots, however, was recorded on another plot that made 119 bushels an acre. This plot has been growing continuous corn since 1876. But since 1904 it has had a manure-lime-phosphate treatment. And since 1955 it has received additional nitrogen, phosphate and potash.

The corn plot receiving a continuous manure-lime-phosphate treatment since 1904 and no additional plant food yielded 84 bushels an acre.

Only the continuous corn section of the Morrow Plots was planted to corn in 1960. The corn-oats plots were in oats and the corn-oats-clover plots were in clover. Next year all plots will be planted to corn for the first time since 1955.

The Morrow Plots, located near the center of the University of Illinois campus, were started in 1876. They are the nation's oldest soil experiment field.

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11/10/60

FOR IMMEDIATE RELEASE

Vegetables Go Under Plastic

URBANA--Plastic greenhouses are a coming thing among vegetable growers.

At the annual convention of the Illinois Vegetable Growers Association, a University of Kentucky specialist told of their recent results in Kentucky and suggested that Illinois growers could profitably follow suit.

Speaking at Southern Illinois University, George A. Marlowe said that heated, plastic-windowed greenhouses cost from 30 to 70 cents per square foot to build compared with $1 to $3 for commercial glass greenhouses, non-heated. And the better growers are getting excellent yields from vegetables housed under plastic.

Marlowe said that, by growing tomatoes and other vegetables in plastic houses, growers can schedule their harvest for active markets. Tomatoes that are ready at Thanksgiving bring from 35 to 50 cents a pound, he pointed out.

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11/10/60

NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Illinois Continues Lead in Soil Testing

URBANA--Illinois farmers continued their lead in amount of soil tested during the past year.

A report just issued by the University of Illinois soil testing laboratory shows that farmers had 561,000 samples tested in 1959. Tests were made on 53,992 farms, or about one out of every three in the state.

J. C. Laverty, in charge of the University soil testing program, credits Illinois' lead to the 80 county extension laboratories and 46 commercial laboratories serving farmers of the state. Some other states also have an extensive system of county laboratories, but they do not test as many samples. The University soil testing laboratory serves as the quality control center to check the tests of county and commercial laboratories.

The leading county laboratories in number of acres tested during 1959 were McLean, Christian, DeKalb, Jefferson, Vermilion and Shelby. Leading counties in terms of number of farms having tests made were Shelby, Macoupin, Christian, Madison, Clinton, Marion and Effingham.

Soil tests are the best way for a farmer to be sure he is applying the amounts of plant food nutrients needed by his soil without putting on too much or too little, Laverty emphasizes. They will help him decide whether plant food will give him a better return than spending his money in some other way.

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FOR IMMEDIATE RELEASE

Illinois Judging Teams Sharpen Up For International

URBANA--Four Illinois judging teams are holding final workouts this week as they prepare for judging contests to be held during the International Livestock Exposition in Chicago.

Included are the University of Illinois livestock and meats judging teams and the Illinois 4-H livestock and poultry judging teams.

The University's livestock judging team will compete with about 40 teams in the Intercollegiate Livestock Judging Contest November 26. The team already has one victory to its credit, as it snared first place last month at the American Royal in Kansas City.

The 1959 team placed fifth at the International, while the 1958 team captured first place.

Members of this year's team include Robert Bohlen, Moweaqua; William Beeler, McLean; Glen Truckenbrod, Mendota; Fred Bunting, Mahomet; Byron Jones, Saybrook; Tom Young, Champaign; Scott McWhinney, Orion; Blaine Shoemaker, Aledo; Bert Fringer, Assumption; and Bill Eaton, Brooklyn, Schuyler county.

The team coach is W. W. Albert, assistant professor of animal science.

The U. of I. meats team also faces stiff competition in its contest on November 29. Team members include Marvin Hayenga, Baileyville; Lance Humphreys, Gilson; Leo Phelan, Ransom; Phillip Dollahon, Seymour; Gordon B. Thorsen, Sheridan; William Gray, Hamilton; and Lendell Dierker, Forest City.

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Coach of the meats team is Burdette Breidenstein, associate professor of animal science.

The Illinois 4-H livestock team judges November 25. This team lost first place to Texas by one slim point last month at the American Royal. The 1959 team captured first place at the Royal and fourth place at the International.

Coached by U. of I. livestock extension specialist Donald E. Walker, the team members include Eugene Skaggs, Lacon; Charles Bloomberg, Lynn Center; Mike Dunphy, Sullivan; and John Huston, Roseville.

The Illinois 4-H poultry team, coached by U. of I. poultry extension specialist S. F. Ridlen, judges on November 26 in the National Invitational 4-H Poultry Judging Contest. Ridlen's 1959 team won fourth place, while his 1958 team snared first place.

This year's team members include Linda Krall, Cerro Gordo; Stanley Heckert, Shelbyville; Jim Shaffer, Shelbyville; and Larry Beall, Streator.

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FOR IMMEDIATE RELEASE

Name 31 To Represent Illinois
at National 4-H Club Congress

URBANA--Thirty-one Illinois 4-H'ers will receive one of the highest honors offered in 4-H Club work when they attend the 39th National 4-H Club Congress in Chicago Nov. 27 through Dec. 2.

The young delegates were selected for outstanding achievements in 4-H Club work from a field of more than 72,000 Illinois members.

They will join some 1,900 other delegates and leaders from the United States and about 20 other countries at the big six-day conference.

Group discussions, addresses by prominent speakers and talks with delegates and visitors from foreign countries are educational highlights of the congress.

Entertainment features include a "pop" concert by the Chicago Symphony Orchestra featuring two 4-H Club members as soloists, and a Friendship Party at the Aragon Ballroom.

Club Congress is conducted by the state extension services and the U. S. Department of Agriculture in cooperation with the National 4-H Service Committee, Inc. All delegates are award winners in their respective states.

The 1960 Illinois delegation includes Anne Akin, St. Francisville; Carol Anderson, Chapin; Frank Beatty, Avon; Brenda Bewley, Glasford; Charles Bickelhaupt, Mt. Carroll; Tom Bidner, Mahomet; Ronald Boldt, Seneca; Gary Coates, Neponset; Duane Dean, Griggsville; Eugene Dillow, Jonesboro; Brenda Fisher, Macedonia; Ron Gehrig, Wyoming;

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Galen Haegele, Barnhill; David Harms, Pleasant Plains; and Patsy Kessler, Mode.

Kenny McMillan, Prairie City; Susan Miller, Cisco; Mary Jo Oldham, Shawneetown; Lee Oltmanns, Nokomis; Don Pritchard, Maple Park; Clara Jane Raplus, St. Charles; James Richter, Mascoutah; Ray Rapp, Normal; Chris Scherer, Claremont; Elaine Steimel, DeKalb; Judith Sudheimer, Carbondale; Marilyn Tomlinson, Rushville; Beverly Torok, Monee; Nancy Vogler, Sciota; Margaret Williams, Stockton; and Shirley Yana, Thawville.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR RELEASE TUESDAY A.M., DECEMBER 6, 1960

SPECIAL: American Society of Agronomy News Coverage

But It Just Doesn't Taste Good

CHICAGO--University of Illinois scientists are developing corn that European corn borers won't want to eat.

Corn borers will stuff themselves on certain corn plants, while they may not give the next plant a second glance. It seems that they just don't like some corn.

Corn breeders have discovered that corn borer resistance is inherited. They are working to develop inbred lines of corn that will have the ability to resist the corn borer. These resistant inbred lines can then be used to produce a resistant high-yielding hybrid. Corn borers find most of today's hybrids very tasty.

In Illinois the 1955 bill for corn that the borers liked came to $73 million. In 1959 there were a lot fewer corn borers around, but their dinner bill was $11 million, according to USDA entomologists.

Robert Harrison, University of Illinois agronomist who is working with corn breeding specialist R. W. Jugenheimer, reported at the American Society of Agronomy meeting today in Chicago on his work to find a method of breeding resistance to the European corn borer.

Harrison planted inbred lines that were developed by different methods. He put the same number of European corn borer eggs on each plant. After three or four weeks he measured the damage to each plant by this generation of borers.

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Inbred lines with excellent resistance to first-brood European corn borers include R71, R74, R109B, R112, R113, R168 and R172. These lines are available to private growers from the Illinois Agricultural Experiment Station.

Agronomists want to develop corn-borer-resistant lines and at the same time keep the high yield and standability of modern hybrids.

The first generation of borers feed on leaves. Entomologists figure that each mature first-generation corn borer cuts the yield of that plant by 3 percent.

Damage by second-generation borers ranges from 1/2 to 1 percent, depending on maturity of the crop when the borers start. Second-generation borers work into corn stalks and lower the plant's resistance to viruses and diseases. Economic effects of resistant hybrids are increased yields, better standability, easier harvesting and less ear droppage, Harrison said.

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11/17/60

FOR RELEASE TUESDAY A.M., DECEMBER 6, 1960

SPECIAL: American Society of Agronomy News Coverage

Bandseeding Alfalfa Acts As Insurance Against Loss

CHICAGO--When used along with other good seeding practices, bandseeding alfalfa can pay off in higher yields.

Late-summer seedings in four of the five years at the University of Illinois have shown this result. S. G. Carmer, University of Illinois agronomist, reported at the American Society of Agronomy meeting in Chicago today that alfalfa yields the year following seeding were 0.2 to 0.8 ton per acre higher on bandseeded plots than on broadcast ones.

No companion crop was planted with the August seedings.

Carmer used a band of phosphate fertilizer (0-45-0 at 100 pounds of P_2O_5 per acre) 1 1/2 to 2 inches under the rows of alfalfa.

The phosphate encourages more vigorous early growth and helps the seedlings get firmly established to better survive the winter, possible fall drouth or low fertility.

Bandseeding alfalfa in the spring has not increased yields. Because of the extra phosphate stimulus, the oat companion crop probably competes more with the alfalfa, Carmer said.

Tests are under way to reduce companion crop competition and yet keep the good effects of bandseeding.

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FOR RELEASE TUESDAY A.M., DECEMBER 6, 1960

SPECIAL: American Society of Agronomy News Coverage

Chemical Nurse Crop For Alfalfa

CHICAGO--A chemical nurse crop for spring seedings of alfalfa makes possible a yield of two tons per acre during the first year, according to University of Illinois research.

Another advantage of a chemical nurse crop for alfalfa is that weed and companion crop competition is eliminated. Besides there being more hay during the seeding year, the quality is higher.

B. J. Gossett, University of Illinois agronomist, reported today at the American Society of Agronomy meeting in Chicago on his recent experiments to determine the effect of weed control and seeding methods on the establishment and yield of alfalfa in the seeding year.

Gossett found that a chemical treatment of 1 pound of 4-(2,4-DB) and 2 pounds of dalapon per acre gave excellent control of grass weeds and satisfactory control of broadleaf weeds. While the treatment did cause some injury to alfalfa, the alfalfa soon outgrew it.

Eptam, a pre-emergence herbicide, also gave excellent control of grass weeds. However, eptam was not effective on broadleaf weeds when it was applied at 3 pounds per acre.

There was more damage to the alfalfa when eptam was used on band-seeded alfalfa than when the alfalfa was broadcast. The reason probably was that the band-seeded alfalfa came into direct contact with the eptam, Gossett said.

Gossett cautioned farmers to make sure the chemicals they use have been cleared by the Federal Food and Drug Administration for use in this way.

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FOR RELEASE WEDNESDAY A.M., DECEMBER 7, 1960

SPECIAL: American Society of Agronomy News Coverage

Sudangrass Hay Research Reported

CHICAGO--Thickly planted thin-stemmed varieties of sudangrass hay dry faster than others.

The variety and seeding rate of sudangrass affect the size of the stem. And sudangrass hay with thin stems dries quicker than the thicker stemmed types, according to A. W. Burger, University of Illinois agronomist.

Burger presented a paper on "The Effect of Variety and Rate of Seeding on the Drying Rate of Sudangrass Herbage for Hay" at the American Society of Agronomy meeting in Chicago today.

Here are the results of a two-year study conducted at the University of Illinois:

1. Diameters of thin-stemmed varieties, such as Piper and Wheeler, decrease after the first harvest.

2. Diameters of thick-stemmed varieties, such as Georgia 337, Stoneville Selection, DeKalb 1, DeKalb 2 and Greenleaf, do not change.

3. Stem diameters of sudangrass varieties get smaller as seeding rate increases from 12 to 48 pounds per acre.

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FOR RELEASE WEDNESDAY A.M., DECEMBER 7, 1960

SPECIAL: American Society of Agronomy News Coverage

Corn, Soybeans Robbed By Giant Foxtail

CHICAGO--If a farmer has 50 foxtail plants in a foot of row, he can lose 25 percent of his corn or 28 percent of his soybean yield, according to University of Illinois field crops specialist Ellery Knake.

Knake reported on his three-year weed competition study at the American Society of Agronomy meeting in Chicago today.

His research indicates that on a given acre of Illinois farm land there are enough nutrients, moisture and light to produce a certain amount of dry matter. The plant food and energy used by the weeds cannot also be used by the crop.

For example, he found that the greater the number of weeds on soybean plots, the greater the loss in straw and beans. Any increase in weeds in corn meant less grain and stalks.

From the results of Knake's research, it is possible to estimate yield loss due to competition from giant foxtail. Six surviving giant foxtail plants per foot of row can reduce corn yields by 12 percent.

Soybeans also suffer heavily from weeds. A field that would normally yield 35 bushels of soybeans per acre if weed free would suffer at 10 percent loss if six giant foxtail plants per foot of row remained. Knake says this means a 3 1/2-bushel loss on every acre.

Grass weeds like giant foxtail can be controlled with certain chemicals. But the cost of most pre-emergence herbicides will run from $2 to $5 an acre with band application. On many Illinois farms even this expense will be more than repaid because of the serious losses that weeds are causing.

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FOR RELEASE TUESDAY A.M., DECEMBER 6, 1960

SPECIAL: American Society of Agronomy News Coverage

Red Clover Can Substitute For Alfalfa In Hay Mixtures

CHICAGO--A red clover and alfalfa combination in a hay mixture yields as much as one with only alfalfa, according to experiments in northern Illinois.

Results of testing more than 100 forage hay crop mixtures at the Northern Illinois Experiment Field, near DeKalb, were presented by J. A. Jackobs, University of Illinois forage crops specialist, at the morning session of the American Society of Agronomy meeting today in Chicago.

Jackobs planted combinations of certified Ranger alfalfa, Kenland red clover, Ladino clover and each one separately as the only legume in the hay mixture.

Results showed that mixtures with 2/3 alfalfa and 1/3 red clover or 1/3 alfalfa and 2/3 red clover can yield as much as alfalfa alone.

In his analysis Jackobs found that the final 1/3 unit in the all-alfalfa mixture only slightly increased over-all yield. His data indicate that 1/3 unit of red clover or ladino clover had a much greater effect on yield.

Jackobs said that the more orchard grass the hay mixture contains, the lower the legume production. Yield was almost the same when orchard grass was the only grass in the hay mixture as when it made up just 1/3 of the grass seeding mixture.

Jackobs investigated the effects of different proportions of certified Lincoln smooth brome, commercial timothy and Potomac orchard grass on the yields.

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FOR RELEASE THURSDAY P.M., DECEMBER 8, 1960

SPECIAL: American Society of Agronomy News Coverage

Better Drainage For Claypan Soils

CHICAGO--Scientists are checking the possibilities of recruiting deep-burrowing earthworms to help solve the drainage problem in claypan soils in southern Illinois.

In addition to being good fish bait, earthworms have long been known to increase the fertility of soil. However, their task in claypan soils would be different.

About a foot and half below some soils in southern Illinois, there is a heavy clay pan. This pan prevents drainage and delays the farmer in getting onto the fields to cultivate during wet springs.

University of Illinois agronomist C. K. Martin told the American Society of Agronomy meeting today in Chicago about the results of some drainage experiments using deep, narrow wells in claypan soils.

Deep-burrowing earthworms, which Martin added to test plots at the University of Illinois Carbondale experiment fields, penetrated as deeply as 30 inches. The earthworms could be improving drainage and aeration, Martin said.

Although the use of deep holes and earthworms has given encouraging results, more work is needed before he can make positive recommendations, Martin emphasized.

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FOR RELEASE WEDNESDAY A.M., DECEMBER 7, 1960

SPECIAL: American Society of Agronomy News Coverage

X-rays Used In Soil Investigation

CHICAGO--Agronomists are bombarding soil with X-rays to determine its mineral and chemical make-up.

X-rays are helping to explain differences in age and development of a soil as well as in the amount of weathering that has taken place.

Most soils are made up of many different kinds of minerals that vary widely in their chemical and physical properties. The kind and amount of plant nutrients released to the growing plant depend on the mineral composition of the soil. Thus minerals greatly influence the soil's productivity, use and management.

New techniques and methods of using X-rays for chemical analysis of soils were reported today by A. H. Beavers, University of Illinois agronomist, at the American Society of Agronomy meeting in Chicago.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

UI Research Shows Farmers Can
Apply Ammonia As They Plow

URBANA--University of Illinois agricultural engineers say farmers can save time, money and labor by combining plowing and ammonia application into one operation.

Ag engineer Jack Butler points out that ammonia application usually costs $2 or more an acre--not counting the cost of the ammonia. And it usually ties up farm labor when it is badly needed in other field operations.

Farmers can lick this problem by putting in the ammonia as they plow. Two years of University research shows that very little ammonia is lost if the job is done right.

Here's how the U. of I. research worked:

The engineers set the ammonia tank on top of the plow or disk and let the tank hose trail along in the furrow.

To get as much soil as possible above the ammonia, they ran as deep in the soil as the plowing depth would allow. Application rates varied with tillage speed. But, in general, rates ranged from 140 to 200 pounds per acre on the basis of 40-inch spacing.

When researchers compared average losses from more than 50 plow, disk, and conventional knife application tests, they found that all losses were below one percent, although those with knife application were lowest.

Butler says the operation isn't restricted to plowing and disking. Any tillage tool that permits ammonia release at least four inches under ground can probably be used to apply anhydrous ammonia.

Researchers point out that this way of applying ammonia works equally well for fall and spring plowing.

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FOR IMMEDIATE RELEASE

Hard Wheat Is Real Surplus Problem

URBANA--A University of Illinois grain marketing economist stated this week that our real wheat surplus problem doesn't involve all wheat, but only hard wheat.

L. F. Stice pointed out that we do not have a national wheat problem, but regional problems. The regions are the plains states, the major producers of hard wheat, and especially the central and southern plains states that produce hard red winter wheat.

Stice reports that by July 1, 1961, hard red winter wheat stocks will rise to 1,232 million bushels. Since we use and export only about 550 million bushels of this kind of wheat, there will be more than a two-year supply on hand before the 1961 crop is harvested. Hard wheat is used primarily for bread.

In contrast, the supply of soft red winter wheat on hand next July 1 will total only 12 million bushels, about a three weeks' supply. Out of this year's supply of 206 million bushels, we expect to export 59 million bushels and use 135 million bushels in the U. S., Stice reports. This kind of wheat grown in southern Illinois and Indiana is used for making cake flour and other pastries.

The 1960 production and prospective use of all classes of wheat except hard red winter are nearly in balance. The 1960 crop of hard red spring wheat is estimated to be 190 million bushels, and disappearance 189 million. This year's production of white and durum wheat will actually fall short of use.

Any new legislation to alleviate the wheat surplus problem must recognize that not all wheat-producing areas of the country have this problem, Stice emphasizes. The bulk of our present wheat surplus came from wheat farms in Nebraska, Kansas, Oklahoma, Texas and Colorado. A much lesser amount was produced in Minnesota, Montana and the Dakotas.

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FOR IMMEDIATE RELEASE

Turf Specialists Meet December 1

URBANA--The University of Illinois plays host December 1 and 2 to the first major conference ever held by the relatively young Illinois Turfgrass Association.

Specialists in horticulture, plant pathology and agronomy will bring colleagues up to date on a variety of topics, including turf management, weed control, turfgrass diseases, grass varieties, fertilizers and insect control.

Any grassy cover receiving intensive management is turfgrass, according to the association's secretary, University of Illinois horticulturist H. R. Kemmerer. This takes in everything from home lawns to football gridirons--and golf courses too, both greens and fairways.

Kemmerer says the rise of the turfgrass profession is largely due to increased leisure of home owners and the landscaping demands coming from construction of homes, schools, parks, highways, golf courses and buildings of all kinds. Commercial people involved in all of these areas will be attending the meeting.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Census Shows Illinois Farmland Values at $319 an Acre

URBANA--The 1959 agricultural census shows that Illinois farmland has an average value of $319 compared with $230 in 1954.

University of Illinois agricultural economist F. J. Reiss points out that sharply rising land prices during the past 10 years have made capital gains as important to landowners as the earnings from farmland.

Reiss also makes these observations on land values:

Current trends in the farmland market indicate that 1959 may have been the peak year in land prices.

The highest per-acre values were reported in the Chicago area of Cook, DuPage, Lake and Kane counties. Only three other counties reported average values over $500 an acre. These were Champaign, Macon and Piatt.

Values of land and buildings showed a higher percentage gain in southern Illinois than in any other part of the state outside the Chicago area. The land values in 36 counties crossed by and south of U. S. Route 40 showed a rise of 47 percent, from $103 in 1954 to $151. The average increase for the state was only 39 percent.

In the Chicago area, land values are affected primarily by nonagricultural factors. Outside this area, the 1959 average values ranged from a low of $59 an acre in Pope county to a high of $545 in Champaign county.

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Values rose proportionately more in southern Illinois than in the more fertile soils in central and northern Illinois. The probable reason is the good response the less productive soils make to fertilizers, weed and insect control measures and timely use of tillage and harvesting machinery.

The larger returns obtained through use of new technology on southern Illinois soils have probably increased land values more in this area than elsewhere in the state.

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UNIVERSITY OF ILLINOIS
AGRICULTURAL CONFERENCES
Urbana, Illinois

COLLEGE OF AGRICULTURE and the
DIVISION OF UNIVERSITY EXTENSION

FOR IMMEDIATE RELEASE

Cover Plants Have Landscaping Role

URBANA--Home owners are encouraged to consider ground cover plants in their landscaping schemes for next spring.

In stature, these low-growing, mat-forming plants are halfway between lawn grass and shrubs, said University of Illinois horticulturist H. R. Kemmerer in describing their role in landscaping at the Illinois Turfgrass Conference December 1 in Urbana.

He added that most of these plants have trailing branches that give the landscape a two-dimensional effect. And they are quite functional, according to Kemmerer. They can be used where mowing is difficult or impossible, as on steep slopes, or beneath low branching trees, or between the house and walk. When used in shrub borders, they effectively tie the shrubs into one harmonious unit.

Among the types adaptable to Illinois, Kemmerer listed purpleleaf euonymus, myrtle, prostrate Japanese juniper, English ivy and Hall's Japanese honeysuckle.

Ground cover plants grow from one to six inches high, and as a bonus most of them contribute a bright dash of color or scent to the landscape. For instance, purpleleaf euonymus turns from green to purplish-red in winter. Myrtle offers little blue flowers in late spring, and the Japanese honeysuckle dispenses a sweet scent with an aura of the deep South.

Kemmerer said that the spring garden books would have long lists of ground cover plants to choose from, and he urged home owners to be sure to select types hardy enough for their area. As a good reference, Kemmerer cited University of Illinois Circular 715, which has an Illinois hardiness zone map and classifies plants accordingly.

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NEWS FROM AGRICULTURE
UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Cite Farming Adjustments on Illinois Farms

URBANA--A revealing picture of the adjustments being made by Illinois farmers was unveiled this week by University of Illinois agricultural economists.

A. G. Mueller reported how 109 farms in a ten-county area of east-central Illinois have made changes as a result of economic and technical farming developments between the years 1951-52 and 1958-59.

The average size of these farms has risen from 287 to 321 acres, an average of 34 acres per farm. Actually, 50 farms added acres, 49 made no change and 10 reduced acreage.

Operators on these farms have stepped up production of their high-profit crops, corn, soybeans and wheat. They have reduced oat, hay and pasture acreage. On the average, corn is up 19 acres, soybeans up 40 acres and wheat up 4 acres.

These farm operators also boosted their average crop yields. Corn yields averaged 15 bushels higher--from 72 to 87 bushels. Soybeans gained only one bushel an acre. Oat yields moved up from 44 to 54 bushels an acre. Wheat yields climbed from 27 to 37 bushels.

These higher yields were achieved in two ways, Mueller believes. Farmers on these farms boosted the fertilizer tonnage they used by 64 percent between the two periods. Improved crop varieties and new technologies in chemical control of weeds and insects probably helped

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to improve yields too. Weather was probably not a factor in explaining yield increases, because soybean yields were only one bushel higher in the 1958-59 period.

In terms of volume of farm products produced on each farm, Mueller figures that crops rose 45 percent and livestock 23 percent.

The financial picture on these farms points up the reasons why many farmers face serious income problems. Costs per farm soared $6,809, while the market value of products sold went up only $1,877, even though physical production increased 48 percent. Profits dropped $4,932 and farm family earnings averaged $2,457 less between the two periods.

Farm family expenses for living, income tax and interest payments climbed from $4,312 to $5,610, according to home account records. So, with earnings down $2,457 and living costs up $1,300, the real income of farm families in this study was about $3,757 lower than seven years earlier.

Although these east-central Illinois farmers stepped up their production by an average of 48 percent per farm, falling farm prices and rising farm costs resulted in the lower profits and earnings for labor, capital and management. This higher production was accomplished with no change in the amount of labor. Actually, labor dropped about one-half month per farm.

Price changes explain the less favorable financial picture between the two periods. The over-all index of prices received by Illinois farmers dropped about one-fifth. Corn prices were down 44 cents a bushel, oats 28 cents, wheat 39 cents and soybeans 82 cents. Fed cattle

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improve yields [illegible] however [illegible] probably not a [illegible] of supplying
and locomotives, because farmers yields were only one season higher
[illegible] 1956-59 period.

In terms of values of farm products produced or sold [illegible]
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prices averaged $7.06 a hundred pounds less. Hogs were down $1.79 a hundredweight. Milk prices were 70 cents a hundred pounds lower, and eggs averaged 11 cents a dozen less.

In another study of 180 farms in six different areas of the state, U. of I. farm management specialists D. F. Wilken and R. B. Schwart found similar adjustments taking place. They report that the northern Illinois dairy counties and the central Illinois grain counties had the greatest drop in management returns. Southern Illinois and western Illinois livestock areas fared a little better.

The shifts taking place toward increased production of high-value cash crops, hogs and beef are an attempt by farmers to maintain their financial position in a period of falling farm prices. With a high output per man needed to keep going, the future needs for capital on farms may be great. The problems of obtaining adequate credit to finance the farm business in the 1960's will be of major importance, the agricultural economists conclude.

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FOR IMMEDIATE RELEASE

Diet Helps Bull's Fertility

URBANA--The question of a bull's fertility may be settled during the early months of its life.

Animals with a history of underfeeding are not nearly so effective, bullwise, as their normally fed counterparts.

In a study supervised by N. L. VanDemark, University of Illinois dairy scientist, it was found that underfed bulls weren't ready for service until 20 months of age, 8 months later than the normally fed bulls. For the next four years their semen production was consistently 40 percent less.

These findings were announced recently by VanDemark and co-workers at the annual meeting of the American Society of Animal Production in Chicago.

VanDemark said they switched rations on some of the test animals after they had reached maturity, but, as expected, the fertility lag continued in those underfed earlier. Also, later underfeeding did not significantly impair the fertility of the bulls that had received better care during the early months of their lives.

According to VanDemark, the results underline the importance of proper feeding during the critical early months. Poor rations permanently impair sexual development, he said. When switched to regular rations after maturity, the test bulls got fatter, but that's all. And he made it clear that the test animals being underfed were not on starvation rations.

Though sexually stunted bulls may get by in small, naturally serviced herds, they cannot, in many cases, keep pace with the increasing technology in animal production. For instance, in artificial breeding, VanDemark said, bulls may be expected to service up to 100,000 cows a year.

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t Being Bull's Fertility

URBANA--The question of a bull's fertility may be settled
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Though sexually stunted bulls may get by in small, naturally
rviced herds, they can't, in many cases, keep pace with the increasing
g technology in artificial insemination. For instance, in artificial
mination, VanDemark said, bulls may be expected to service up to
,000 cows a year.

FOR RELEASE WEDNESDAY P.M., DECEMBER 7, 1960

Research Report on Developmental Stages in Corn

CHICAGO--Space rockets aren't the only things that function in stages. Scientists at the University of Illinois have found that the life cycle of corn can be divided into stages.

There are critical points in each developmental stage when extreme environment changes have the greated effect on yields, O. T. Bonnett, plant breeding specialist, told the American Seed Trade Association meeting in Chicago today.

It is during a period of sixteen days, about eleven days before and five days after full tasseling, that environmental extremes have the greatest effect on seed yields, Bonnett said. In this period the tassel emerges, the ear shoot elongates and silking occurs.

For example, if corn plants are shaded when the tassel emerges, the ear shoots don't develop and seed is not produced.

Corn can't shorten some of its stages to beat killing frosts. For example, the tasseling period takes just so long no matter how late or early the corn begins to tassel.

Illinois researchers have found that high temperatures during pollen shed will cut yields. Except in the early growing stages, above-average rainfall increases yields.

Although information on the developmental pattern and time sequence isn't much help to the farmer, it is extremely useful to the researcher who is hunting for reasons why yields are high in some years. Also, the results of experiments can be interpreted more accurately with information like this.

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FOR RELEASE WEDNESDAY P.M., DECEMBER 7, 1960

Corn In The Future May Come
Equipped With Spare Chromosomes

CHICAGO--University of Illinois plant breeders are testing the possibilities of giving corn plants an extra set or two of chromosomes.

Today's corn has just two sets of ten different kinds of chromosomes. Chromosomes carry genes that are the basic substance of life. The genes determine the various characteristics of a variety.

Usually plants have only two sets of chromosomes. If two sets are added, the plant is called a tetraploid. Man-made tetraploid rye and red clover, as well as sugar beets, are raised on a limited scale in northern Europe.

Ornamentals and certain fruits with extra chromosomes are widely grown because of their showy flowers or larger fruits.

Scientists at the Illinois Agricultural Experiment Station are working to harness the desirable results of this genetic phenomenon that occurs when chromosomes are added.

D. E. Alexander, corn breeding specialist, reported at the American Seed Trade Association meeting in Chicago today that some synthetic varieties of corn hold up well in tests with regular hybrids.

However, corn plants with two extra sets of chromosomes are not twice as vigorous or twice as fast growing as today's hybrids, Alexander said.

Illinois researchers have found that plants with four sets of chromosomes appear to be more severely damaged by drouth than those with

-more-

only two sets. And the cells are twice as big in plants with extra chromosomes.

Alexander has found seed abortion higher in man-made types, although one type, Synthetic B, has attained a seed set of 77 percent.

Synthetic varieties aren't just around the corner. But Alexander says there's a good possibility that in the future farmers in underdeveloped countries can save seed from tetraploid corn and plant it the next year without the heavy loss in yield that is common with today's hybrids.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

1961 Farm Outlook Packet

Family Farm Will Remain; Little Change in Farm Prices

URBANA--The family farm will remain the basic unit in American agriculture, but it will be more mechanized, more specialized and require more capital investment than in the past.

This is the view of Harold G. Halcrow, head of the University of Illinois department of agricultural economics. He also feels that the outlook for farm prices in the next few years is that they will continue at the general level of the past two or three years. A return to the price relationships of the early 1950's does not seem likely.

The price trends of recent years reflect the broad shift in world markets as the effects of World War II and the Korean War recede into the background, Halcrow points out. Food will continue to be one of the great bargains of our society, and farm problems will continue to be one of the major domestic issues.

The battle over farm price policy that has raged intermittently for almost 40 years is not headed for an early or easy settlement in the 1960's, Halcrow emphasizes. He suggests four areas to which government policy-makers and others interested in agriculture should devote more attention:

1. Young people in rural areas need a broader education so that they will not be solely dependent on farming as a future occupation. Studies show that there is room in farming for about one out of four or five of the young people who grow up on farms. Many of these young people are not aware of the great opportunities open to them through education.

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2. Off-farm employment will greatly aid those who find themselves in low-income situations and who have the qualifications for and an interest in off-farm employment. Ways should be found to provide job training so that those who take nonfarm jobs won't have to start so far down on the income ladder.

3. Farm families need help in planning and financing the best adapted family farms.

4. We need to recognize more clearly the place of programs that will "cushion" the shock of a price squeeze pending more fundamental allocation of resources. We should have emergency programs, but we should be willing to modify these programs in time to prevent difficult adjustment problems.

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FOR IMMEDIATE RELEASE

1961 Farm Outlook Packet

Hog Prices Favorable; Lower Prices Expected by Next Fall

URBANA--Hog producers should plan now to take advantage of present favorable hog prices but should be ready for price adjustments by the fall of 1961, a University of Illinois livestock marketing economist suggests.

E. E. Broadbent points out that with wet corn now selling at 70 to 85 cents a bushel, it is profitable to hold hogs to sell at heavier weights. Normally it is not profitable to sell hogs at this time of year if they weigh over 240 pounds. When a producer has to take a discount of 65 cents to $1.00 a hundred for the heavier hogs, he has no incentive to hold longer.

Broadbent points out that highest prices normally come in June for 200- to 220-pound market hogs. Hogs weighing under 180 pounds and over 240 pounds take quite severe discounts at that time. Because of the smaller 1960 fall pig crop, spring and early summer markets in 1961 should be quite favorable.

Studies show that in February and September the market does not price the different weights so closely. Last year during these months the price on 190 to 260 pounds showed little difference. For the swine industry to improve its pork market, however, Broadbent suggests that farmers would be better off to sell hogs at the preferred weights of 200 to 220 pounds. The individual farmer may gain by holding to heavier weights in the short run, but in the long run he will hurt consumer demand for pork because of the excess fat on the heavier pork cuts.

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FOR IMMEDIATE RELEASE

1961 Farm Outlook Packet

Higher Milk Production Expected; Little Price Change Likely

URBANA--Dairy farmers will probably produce a little more milk in 1961 than they did in 1960, but their prices are likely to average about the same, according to University of Illinois agricultural economist R. W. Bartlett.

The prices that milk producers receive after April 1 will depend partly on the support level established for the next 12 months. But it seems likely that the support price will be at least as high as it has been in the past year.

Here is how Bartlett appraises the dairy situation for 1961:

Consumers are expected to use about as much fluid milk as they did in 1960. They will also continue to buy frozen dairy products at a high rate. Purchases during 1960 averaged 51 pounds a person compared with about 25 pounds just before World War II.

Cheese consumption is likely to remain high. Consumers bought over 8 pounds a person in 1960, a 48 percent increase over 1935-39.

The decrease in consumption of butter, evaporated milk and fluid cream is expected to continue. Butter use averaged 7.8 pounds per person in 1960 compared with 17 pounds in 1935-39. Evaporated milk consumption has dropped 39 percent since 1950.

Commercial developments of fresh and sterile concentrated milk are likely to continue during 1961. Four companies established aseptic canning plants for sterilizing milk and milk products during 1960. These products include sterile whole milk in plastic containers, a specialized skim milk product, partly sterilized cream in paper containers and sterile cream in tin cans.

While this development is still in the pioneering stage, Bartlett believes that in the not-too-distant future consumers will be able to buy milk concentrates, in fresh, sterile and dry whole milk powder form as substitutes for fresh whole milk.

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FOR IMMEDIATE RELEASE

1961 Farm Outlook Packet

Huge Corn Supplies to Hold Prices Near Loan

URBANA--Corn prices have passed their low, but huge supplies will prevent them from reaching the loan price until late spring or summer, a University of Illinois agricultural economist believes.

L. F. Stice reports that the 1960 Illinois corn crop brought Illinois farmers overflowing cribs, knotty production and marketing problems and disappointing prices. The 1960 crop of 694 million bushels set a new record and is 3 percent larger than last year's crop.

Prices dropped 20 cents a bushel below those of last year during the peak of the harvest movement. Depressed prices resulted from the record corn crop, a large volume of high-moisture corn and a shortage of storage space and drying capacity, Stice explains. The build-up in government stocks, a large grain sorghum crop, a cut of 6 cents a bushel in the government price support and a cut-back in hog production also contributed to lower corn prices.

By early December, prices at country elevators had moved up 8 to 10 cents a bushel as lighter marketings eased the pressure on storage and drying facilities. Low prices also stimulated buying by users who had storage space.

Here is how Stice appraises the situation for 1961:

Further improvement in prices will be moderate, as marketings will be large during the winter and spring months. Some corn on farms will be sold because of high moisture, or cribs will not qualify for the government loan.

Commodity Credit Corporation will also make large sales of nonstorable corn. CCC put some high-moisture and damaged corn into temporary storage when taking over 1959 loan corn. The need to make room for the 1960 loan corn is also likely to increase sales.

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Illinois corn price recovery will also be slowed by the large crops in Indiana and Ohio. These states have a location advantage for supplying the eastern feed grain markets.

Corn use may almost equal the 4.1-billion-bushel record set last season. Feed grain consumption per animal, abundant cheap, high-moisture corn and large-volume cattle feeding will nearly offset the cut-back in hogs and poultry on farms this winter. Corn exports may not quite equal those of last year because the European feed grain output is up and those countries also have some poor-quality wheat to feed.

If the 1960-61 corn use runs from 4.0 to 4.1 billion bushels, then about 200 million bushels will be added to the accumulated surplus next October 1.

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FOR IMMEDIATE RELEASE

1961 Farm Outlook Packet

Some Chance for Higher Soybean Prices Next Spring and Summer

URBANA--Soybean prices have a fair chance of going up substantially next spring and summer, a University of Illinois agricultural economist believes.

T. A. Hieronymus says that a sustained decline from the present $2.00 to $2.05 price appears unlikely.

Here is how Hieronymus appraises the 1961 soybean outlook:

Total supplies for the 1960-61 marketing year beginning October 1 are estimated at 583 million bushels compared with 590 million bushels last year. Since about 23 million bushels were carried over last year, the carryover this coming year may be reduced. Before short supplies produce any real fireworks in price movements, the carryover must drop to around 10 million bushels. A moderate rise in soybean use could produce a tight situation.

Exports could surpass the 142 million bushels shipped abroad last year. In mid-November, exports were running about 6.5 million bushels ahead of the same time last year. Japan is slated to buy an extra 5 million bushels next spring.

Disposing of soybean oil will continue to be a problem. World fat and oil supplies stand at all-time highs. With competing oil supplies up and soybean oil prices about 25 percent higher, large exports for dollars do not appear probable. Oil prices are apt to decline except as the government finds new ways to dispose of the surplus.

Meal prices will probably rise by spring and summer. Favorable feeding ratios for hog and egg producers favor increased use of soybean meal. Current low meal prices will encourage large use. A larger 1961 pig crop and spring chick hatch will also strengthen the demand for meal. Meal supplies could run short and cause a substantial rise in soybean prices.

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FOR IMMEDIATE RELEASE

1961 Farm Outlook Packet

Time for Caution in Cattle Business

URBANA--A University of Illinois livestock marketing economist believes that 1961 will be a time for caution in the cattle business.

M. B. Kirtley expects that earnings will generally be relatively low. Producers will find that careful selection of the time and place to market their cattle will be especially important. Further problems also appear likely in 1962, when supplies of beef will be higher and hog slaughter will also be high.

Here is how Kirtley appraises the cattle picture for 1961:

Cattle prices will continue to move lower. Prices of better grades of fed cattle will probably average about $2.00 a hundred pounds below 1960 prices. Lower grades will decline even more.

Slaughter will rise, but the number of cattle will still be higher on January 1, 1962, than on January 1, 1961. The 1961 calf crop will be considerably above that of 1960.

Cattle prices will be stronger in the early part of the year. Limited numbers of fed cattle scheduled to come to market in January and February should mean prices close to those of a year earlier. The spring market, which has been favorable for the past three years, will be good, but not so much above winter prices as in recent years.

Feed supplies are large, but not many more cattle will be fed in 1961 than in 1960. The cost of replacement cattle and declining slaughter prices have not left much net for many feeding operations. Therefore, most of the increased beef supply will not be grain-fed.

Beef supplies in 1960 were near the 85.4-pound record set in 1956. Next year the supply will be near 89 or 90 pounds and will set a new record. Imports of beef, while only a small part of our total supply, will decline because of the increase in domestic supplies.

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FOR IMMEDIATE RELEASE

1961 Farm Outlook Packet

Poultry Outlook Less Favorable; Higher Production Ahead

URBANA--Illinois poultrymen face less favorable price prospects for 1961, a University of Illinois agricultural economist believes.

James R. Roush says that the favorable 1960 prices will encourage expanded production of eggs, broilers and turkeys in 1961. And prices paid to producers will drop below those of 1960.

Egg prices increased 12 percent during 1960 because of lower production. Broiler and turkey prices moved up over those of 1959, however, in spite of record production during 1960.

Here is how Roush views the future outlook for eggs, broilers and turkeys:

Egg prices during the first half of 1961 should average above those in the first half of 1960. Since producers bought fewer egg-type chicks last winter and early spring, there will be about 7 percent fewer birds in laying flocks on January 1, 1961, than a year ago. Although production per bird is running a little higher, total production during the first half of the year should average below that of the same period last year.

Egg prices during the last half of 1961 will depend largely on how many egg-type chicks producers buy this winter and next spring. Hatchings have been above those of a year ago since last May. Egg prices through the first quarter of the new year will probably encourage increased purchases of egg-type chicks.

For the year 1961 as a whole, egg prices received by Illinois producers should average above the 26 cents a dozen received in 1959 but below the 31 cents received in 1960.

Broiler and turkey production during 1961 will probably be at least 5 percent above the record production of 1960. If this happens, prices probably will be lower than in 1960. Poultry meat will face increased competition from larger supplies of both beef and pork.

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FOR IMMEDIATE RELEASE

1961 Farm Outlook Packet

Farm Product Demand May Increase; Little Change Seen in Farm Costs

URBANA--Consumer demand for U. S. farm products may rise some in the year ahead, but probably not so much as in most of the past 10 years, a University of Illinois agricultural economist believes.

L. H. Simerl points out that domestic demand for farm products will depend primarily on consumers' incomes and their willingness to spend money for food. And consumer income is closely related to industrial production levels, employment and wage rates.

Here is how Simerl views the present economic situation and outlook:

Industrial output, which ran ahead of sales in the first half of 1960, has been cut back about 3 percent. This cut-back has balanced output with sales, but it leaves many businessmen with somewhat excessive stocks of some materials and finished products.

Since present industrial capacity seems to be more than adequate to supply buyers' wants, businessmen see no need to increase their outlays for new plants and equipment. Changes in the rate of capital investment are the principal cause of swings in business activity.

Efforts to check the outflow of gold may prevent large increases in government spending to boost business activity. It would also be a serious mistake to expect that money for spending to stimulate the economy can be obtained by "plugging tax loopholes." Looking at the economy as a whole, this device is simply a means of increasing taxes and replacing private spending with public projects.

A bright spot in the business picture is that individuals are now saving at a rate of $29 billion a year, up $4 billion from 12 months ago. Increased savings provide a basis for increased spending, and income, at some future date.

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Foreign demands for farm products have been at record rates in recent months. But further increases seem likely to be prevented by attempts to limit dollar spending in foreign countries.

Consumers spent about $3 billion more for food in the third quarter of 1960 than a year earlier. If some of this increase could get back to the farmer, his income would improve considerably.

Simerl also sees two possible favorable developments in the over-all 1961 farm outlook. Marketing costs, the spread between farm and retail prices, may not increase as they did in most of the past 15 years. And farm operating costs likewise may be kept under better control than they were in the 1950s.

Wages are the biggest item in marketing costs and in many of the things farmers buy. If wage increases are no greater than increases in labor productivity, then there should be little or no increase in farm marketing or operating costs.

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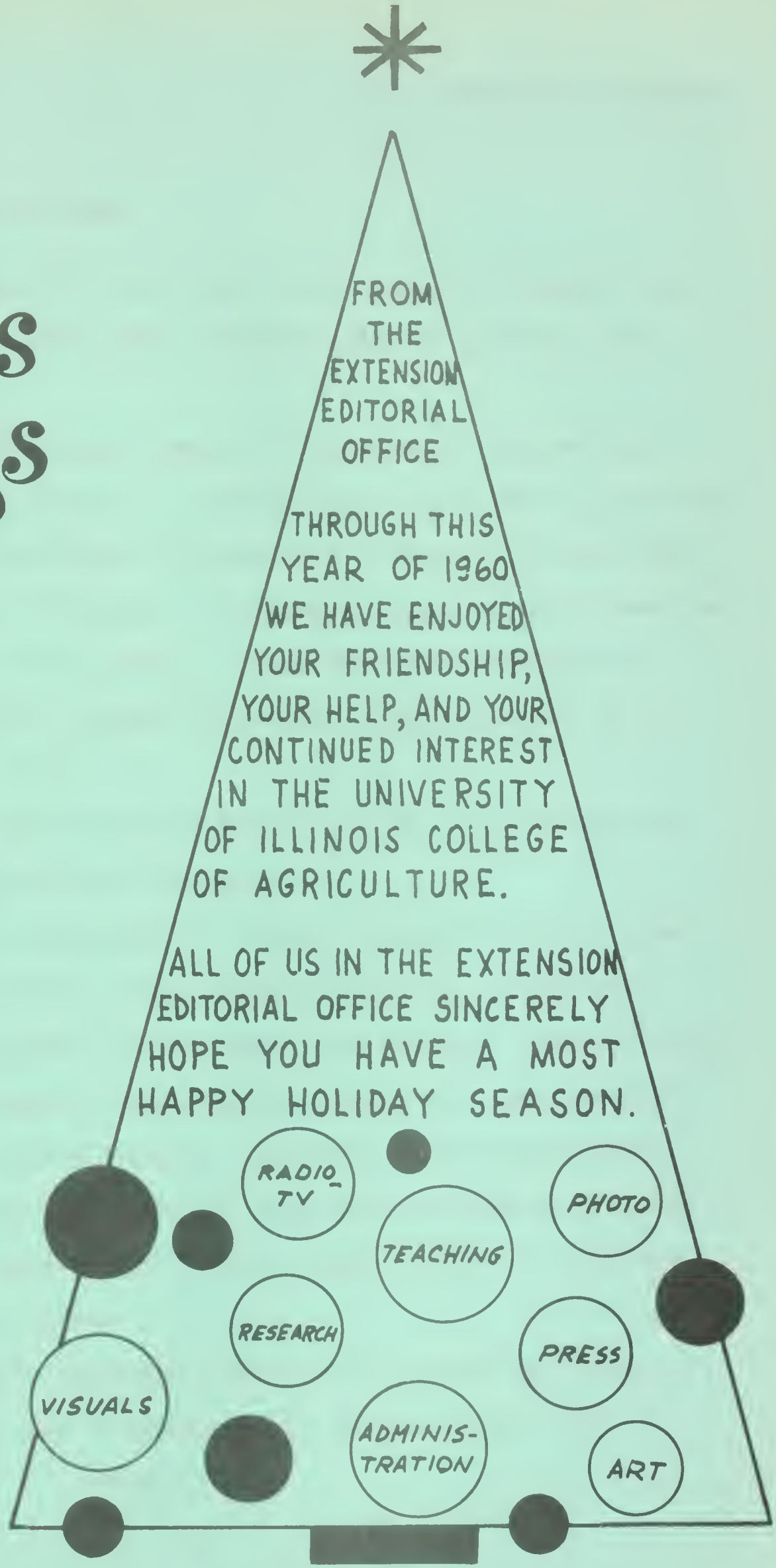
Season's Greetings



UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE

FOR IMMEDIATE RELEASE

Illinois Land Prices Show Declines

URBANA--Prices paid for farm land have declined somewhat in much of Illinois during the past year, a University of Illinois land economist reports.

From a survey made among farm land appraisers, brokers and professional farm managers, Charles L. Stewart has found that prices for privately sold land were down about 14 percent in central Illinois and about 10 percent in northern Illinois. Scattered reports show a smaller drop in the southern part of the state. Since the end of September, when the survey was completed, Stewart has noted some evidence of increased interest in buying land.

The decline amounted to about $65 to $70 an acre in central Illinois and $30 to $42 in northern Illinois.

Highly productive land sold at auction seemed to bring lower prices than that sold in private sales, Stewart reports. Some east-central Illinois auctions showed "shockingly" low prices. Auction sales were handicapped in some cases by unfortunate choice of time and place and by reservations of rights by owners, the land economist believes.

Some private sales were made on long-time contracts at lower interest rates than most lenders would make. This helped to maintain land prices on such private sales.

Some Illinois areas reported little or no slump in prices. Some river-valley land that had a higher yield potential and was

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Illinois Land Prices Declines

Farmers in the U.S. Corn Belt have observed somewhat lower prices of farmland during the past year. A nationwide or Illinois land market survey.

Based on a survey made among farm land appraisers, brokers and professional farm managers, it appears the trend that prices of farmland had generally risen above 1974 levels in recent months has reversed in prices in southern Illinois. Professional reports show a decline in the southern part of the state. Since the end of September the survey has indicated similar evidence of lower prices and weaker interest in buying land.

The decline averaged in about 500 to 750 an acre in central Illinois and 250 to 500 in northern Illinois.

Many productive land sold at auction around $1 an acre less than land in previous years, stronger markets. Some average-quality Illinois farmland sold "bookkeeping" the payment. Auction sales in Bureaucrat in some cases by commission or course of farm and ranch by reservations or rights by course, the land commission business.

Some private sales were made. A farm-lease land from de lot farmer after from farm farmers could sell. Land helped to maintain farm product on farm payment sales.

Some Illinois farms reported little or no sales in October. The principally land sale had a price years potential and was

protected from overflow or clearable at reasonable cost attracted buyers from higher priced areas.

Several reasons were given for the land price slump. Some believed it was due partly to fewer nonfarm investors buying land. Others cited high taxes and interest. Others credited high returns from other investments. Some reported the uncertainty farmers felt about raising funds to buy land as a reason for the drop at auction sales. Low and possibly declining net incomes of farm operators were also given as a reason.

Stewart retired from his position as professor of land economics in September 1959 and during the past year has served as a special consultant on a land appraisal research project.

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FOR IMMEDIATE RELEASE

Illinois Youths Named Winners

URBANA--A 17-year-old miss from Springfield, Illinois, was named national winner last week in the fresh market division of the National Junior Vegetable Growers Association.

The announcement of Jill Armstrong's selection came at the NJVGA convention in Colorado Springs, Colorado, December 4-8. At the same time 15 other Illinois youngsters were named state winners in their respective divisions.

For winning the national award, Miss Armstrong received a Benrus watch, gold pin, rosette ribbon and NJVGA jacket. She made her winning entry on a 2/3-acre plot, growing 20 different vegetables. She sold $967.20 worth of produce last summer for a $712.30 profit. This total averages out to $5.02 an hour for labor. The NJVGA average is about $2.25 an hour.

State winners named in this division include Mary Ann Casa, JoAnne Paciorek and Nick Dorosheff, all of Springfield, and Carol A. Probasia, San Jose, and Miss Tedi Dodge, Grayslake.

State winners in the canning crops division include John Pohl, LaMoille; Donald Avery, Mendota; Lawrence Beall, Streator; Harold A. Steiner, Tremont; and Kenneth DeMunn, Belvidere.

Named state winners in the variety trials division were Sophie A. Dyrcz, Blue Island; David F. Beyes, Vandalia; Robert C. Eyman, Mulberry Grove; Leslie Benefiel, Hagarstown; and Marion Durr, Fillmore.

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Entries in each division are judged on their costs and profits in relation to garden size, production practices, cultural improvements, yields and other activities of the youngsters. In addition, entries in the variety trials division are also judged on comparisons made between different varieties.

All first- and second-place state winners receive a silver pin and a blue ribbon. In the above listings of state winners, the first and second names are the first- and second-place winners, respectively. Winners of third, fourth and fifth places receive bronze pins and red ribbons.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

Changes in Social Security

URBANA--At least four changes in the Social Security law are of interest to farmers, says George B. Whitman, University of Illinois economist.

Here's a brief rundown of the changes made during the last session of Congress:

1. If you become severely disabled, a change in the law permits payments at any age if you have paid Social Security tax for five of the past ten years previous to the disability.

2. A year and a half of working time under Social Security is still required before any benefits can be paid. But under the new law most people can become insured more quickly than before. Some older people who did not work long enough under the old law may now be eligible for payments.

3. Parents working for sons or daughters in their farm business are covered by Social Security after 1960.

4. The new law now says that any nonprofit organization can cover an employee who wants Social Security. Before, two-thirds of the employees had to want coverage.

Whitman suggests that farmers check at least every three years with the local office to see that their Social Security record is correct. He also urges farmers to get in touch with the local office for more information on the recent changes.

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FOR IMMEDIATE RELEASE

Illinois Custom Spray School Announces Program

URBANA--Spray operators, insecticides and herbicides once again take the University of Illinois spotlight when the 13th annual Illinois Custom Spray Operators' Training School meets January 25-26.

Several reports to be given include:

1. "Penetration and Translocation of 2,4-D and 2,4,5-T," by Fred W. Slife, U. of I. agronomist.

2. "Granular Size, Formulation, Distribution and Their Effect on Soil Insect Control," by J. W. Apple, University of Wisconsin.

3. A soil insecticide research report that especially concerns winter applications, to be presented by J. H. Bigger, Illinois Natural History Survey entomologist.

4. "Control of Quackgrass and Wirestem Muhly With Atrazine,' by W. O. Scott, University of Illinois agronomist.

5. "Chemical Control of Aquatic Weeds," by H. E. Hiltibran, INHS.

6. "Mold Prevention in Stored High-Moisture Corn," by J. F. Tuite and G. W. Isaacs, Purdue University.

7. "Hessian Fly Control in Wheat With Systemic Insecticides," by J. H. Bigger.

8. "Face Flies--Their Abundance, Distribution and Results of Farm Control Tests," by Steve Moore, U. of I. and INHS extension entomologist.

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Chairman H. B. Petty, extension entomologist with the U. of I. and INHS, reports that the formal program gets under way January 25 at 9:45 a.m. Early arrivals, however, can see movies beginning at 9:00. The movies concern new developments in agricultural chemicals.

Preceding the Spray School, the Agricultural Spraying Association and the Illinois Aerial Applicators' Association will hold a joint meeting on January 24 at 3:30 p.m. The meeting features a discussion of "Policy, the Backbone of Your Business." Irwin Cochrun, director of the bureau of business management, will present this discussion.

For a complete copy of the Spray School program, write to H. B. Petty, 280 Natural Resources Building, Urbana, Illinois.

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12/19/60

FOR IMMEDIATE RELEASE

"Slobber" Hay Still Problem for Illinois Dairymen

URBANA--New cases of "slobber" hay are being reported already this year--two weeks earlier than first cases have been reported in the past, according to John Byers, University of Illinois dairy scientist.

Byers warns dairymen who feed second cuttings of red clover and alfalfa hay or silage this winter to watch for signs of excessive salivation, or slobbering, in their herds.

Over the past few years dairymen from all parts of the state have reported that cows in their herds began slobbering within 1 1/2 to 24 hours after eating second cuttings of affected forage.

In all cases the animals ate one to three feedings of the "slobber" forage, salivated excessively and then refused to eat any more. Many dairymen said it was not uncommon to find 1 to 1 1/2 inches of saliva in mangers after cows ate the forage.

U. of I. dairy scientists are working to find what causes the condition. Although they have found no positive answer, research indicates that dairymen can prevent total loss of affected hay by mixing second forage cuttings with first or third cuttings at a ratio of about one-third "slobber" hay to two-thirds regular hay.

Byers says dairymen can also fight the problem by holding the affected hay over for a year. It seems to lose the slobber factor on standing.

Byers says it's important that dairymen who find affected hay report it to the University of Illinois department of dairy science.

Researchers are working to solve the problem. The key to their success will depend on getting samples of the hay as soon as it is discovered in a dairy herd.

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NEWS FROM AGRICULTURE

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE URBANA, ILLINOIS

FOR IMMEDIATE RELEASE

UI Tests Completely Automatic Beef Feeding System

URBANA--University of Illinois agricultural engineers plan to carry feed automation to the limit this winter at their new, completely automatic beef feeding installation.

Agricultural engineer Don Daum says the main purpose behind the automatic feeding set-up is to fit together components from many different manufacturers into a single working unit.

Daum points out that there are many pieces of automatic equipment on the market. But, to date, little has been done to fit these pieces into a compact, automatic feed handling unit.

Key to the U. of I. feeding system is a commercial silo unloader controlled by an automatic timer and modified to deliver silage at a uniform rate.

Under the new feeding system, silage is stored in a concrete stave silo, grain in a self-unloading bin, and protein supplement in a hopper-bottom bin.

Pneumatic pressure switches govern the flow of grain and supplement into an automatic blender-grinder and deliver the ground concentrates by auger to a storage bin over the silage conveyor.

At this point, two automatic time clocks take control of the feed handling operation. One clock selects the time of day of the feeding period. The other clock controls the length of the feeding period.

The clocks have direct control over a vibrator feed meter located under the concentrate bin. They also control silage unloading and delivery equipment.

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Taking its clue from the automatic clocks, the vibrator feed meter meters the correct amount of concentrate mixture into the silage as it moves by auger conveyor from the silo to the feed bunk.

In the feedlot, an experimental bunk distributor can be set to dump the material on either side of the bunk.

The new beef feeding system was first operated in January 1960 feeding silage only. The system has been modified considerably during the summer and is probably in for some more minor changes now that researchers are trying it out in a full-scale feeding program this winter.

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12/27/60

FOR IMMEDIATE RELEASE

Spring Oat Recommendations
Announced by U. of I. Agronomists

URBANA--University of Illinois agronomists have some definite recommendations to make on which spring oat varieties to plant in 1961.

In northern Illinois, Goodfield rates high on the list. Goodfield has very good lodging and rust resistance and is high in test weight, says W. O. Scott, U. of I. agronomist. It is a new variety, released in 1959 from Wisconsin, and data from Illinois research plots shows it yields comparatively well on highly fertile soils.

Minhafer is also recommended. The outstanding characteristic of this oat is its resistance to all prevalent stem and leaf rusts in the cornbelt.

Clintland 60 and Newton are other varieties worth considering in northern Illinois.

While Beedee does not equal the disease resistance of the other varieties, it has short, plump, wide kernels and is a good feeding oat.

Shield is a new early Canadian oat variety. It has high yields but does not equal the other varieties in disease resistance.

In central Illinois, Scott recommends Minhafer, Clintland 60 and Newton. On high fertility soils where lodging may be a problem, Scott suggests trying Goodfield.

From their performance at the Brownstown Experiment Field in 1960, the two best varieties for southern Illinois are Missouri 0-025 and Newton. Mo. 0-025 has moderate leaf and stem rust resistance.

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Newton was the outstanding variety in 1959 in areas where yellow dwarf virus was present.

There are many things to consider in determining whether a particular variety is adapted to your area, Scott said. Some of them are time of maturity, yield, lodging resistance, disease and insect resistance, quality and ability of the variety to produce a good crop under poor as well as favorable conditions.

Scott suggests that farmers talk over variety selections with their county farm adviser.

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Illinois Nutrition Conference
to Analyze Vitamin A Problem

URBANA--A panel of leading animal nutritionists will thoroughly evaluate the puzzling vitamin A deficiency problem during the University of Illinois Nutrition Conference, February 1-2.

As many livestock men and feed dealers know, the problem concerns cattle that develop vitamin A deficiency symptoms even though their rations supply adequate carotene, the precursor of vitamin A.

This panel scrutinizes the problem from several different angles in an attempt to better understand it. B. Connor Johnson, U. of I. animal biochemist, describes vitamin A's role in the animal body. George E. Mitchell, University of Kentucky, discusses vitamin A deficiency under feedlot conditions.

G. S. Smith, U. of I. beef cattle research man, attacks the problem from yet another angle: the possible effects of high nitrate silage on vitamin A in the body.

W. H. Pfander from the University of Missouri discusses chronic nitrate toxicity and its possible relationship with vitamin A deficiencies.

These however, are only a few of the interesting talks that the audience will hear.

The program gets underway February 1 at 1:30 in the Clark House. H. M. Scott, U. of I. poultry nutritionist, is the first speaker scheduled. His talk covers interesting changes in the amino acid requirements of chicks.

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A talk by Illinois' D. E. Becker should interest hog producers and feed manufacturers alike. Becker reports how various preparations of grain affect its utilization by hogs.

Swine researcher A. H. Jensen's talk will also catch the attention of hog men. His talk concerns the feeding and nutritional considerations of "disease-free" hogs.

Dr. Albert Tannenbaum will present one of the conference's most interesting talks. A leader in the field of cancer research, he'll discuss nutrition in relation to how cancer begins. He is director of cancer research at Michael Reese Hospital, Chicago.

Although the conference is planned primarily for feed and nutrition personnel, anyone may attend. A $6.00 registration fee, however, will be charged to help cover costs of the out-of-town speakers and the manual of proceedings.

For more information, contact E. E. Hatfield, Stock Pavilion, University of Illinois, Urbana.

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