



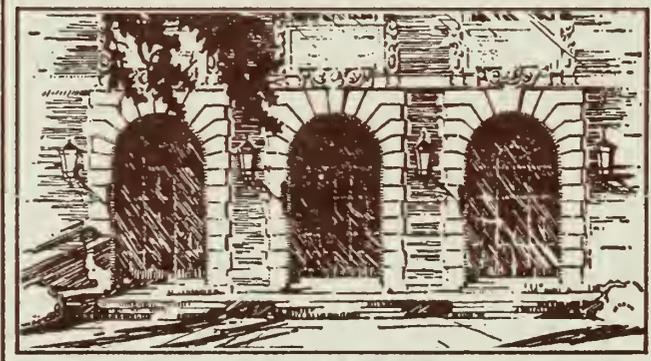
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# NEWS FROM AGRICULTURE

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URBANA, ILLINOIS



FOR IMMEDIATE RELEASE

## Crop Performance Day Set for January 24

URBANA--Latest research results on the performance of 1960 hybrid and experimental corn varieties will be given at the University of Illinois Crop Performance Day January 24.

The meeting starts at 9:30 a.m. in the ballroom of the University's Illini Union, according to W. O. Scott, U. of I. agronomist.

A panel of experts will be on hand to answer questions on high-density corn. Members of the panel will discuss the best fertilization levels for high-population corn, the problem of shading, the most successful breeding programs to follow and the types of equipment needed to cultivate and harvest high-population corn.

Last year more than 300 Illinois farmers and seedmen attended Crop Performance Day.

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Some Sheep Flocks More Valuable Than Others

URBANA--A University of Illinois livestock specialist announced today that the average Illinois farmer with a sheep flock received a gross income of \$24 per ewe during 1960.

Yet some farmers received more than \$35 from their ewes. G. R. Carlisle says that records of 345 Illinois sheep flocks show why some flocks produced more income than others for their owners.

The average ewe produced 91 pounds of lamb that was marketed by September 1. This same average ewe also produced 8 2/3 pounds of wool.

On the other hand, ewes in high-income flocks produced 125 pounds of lamb that was marketed by September 1. These ewes produced 11 pounds of wool. Farmers with high-income flocks also received about \$2.00 more per hundredweight when they sold their lambs.

This combination of one-third more lamb, 2 pounds more wool and a higher price for marketed lambs adds up to a 50 percent larger gross income.

Farmers reading between the lines will realize that good management is the answer to higher incomes from sheep flocks. Many farmers will find helpful ideas in the leaflet, "Ewe Flock Management in the '60s." Copies are free and available from University of Illinois county farm advisers.

Farmers can also write to Carlisle for a copy. His address is 326 Mumford Hall, Urbana, Illinois.



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Panel Discussion Feature of ISHIA Meeting January 14

URBANA--A panel discussion of current swine problems and progress toward their solution highlights the Illinois Swine Herd Improvement Association's annual meeting January 14 in Peoria.

Panel members include O. Burr Ross, head of the University of Illinois department of animal science; J. W. Albrecht, veterinarian from Princeton; and Harold Boucher, secretary, Hampshire Swine Registry.

Another U. of I. speaker, livestock specialist, H. G. Russell, summarizes data from the association's test stations last year. The data include backfat thickness, loin eye measurement, carcass length, weight gains and other facts from every hog tested.

H. L. Self, Iowa State University, discusses artificial breeding of swine. L. L. Stewart, Indiana hog producer, reveals changes he has made in the last five years to keep pace with the changing and growing swine industry.

Suggested changes in the USDA daily market reports is the topic of B. H. Jones, Chicago Stockyards.

All interested persons are invited to attend the meeting. Starting at 10 a.m., it will be held in the Jefferson Hotel.

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FOR IMMEDIATE RELEASE

## Confinement Hog Production Needs Careful Planning

URBANA--Confinement production of hogs involves a lot more than just locking them up in the old horse barn, says Roy Van Arsdall, U.S.D.A. economist at the University of Illinois.

A confinement system should be designed for labor efficiency. Van Arsdall emphasizes the importance of mechanical means of handling feed and water as well as equipment for handling manure.

For most efficient feed conversion, temperatures should be kept at a moderate level within the house, Van Arsdall said. A closed house must be properly ventilated to control moisture.

Van Arsdall figures that a good, fully equipped farrowing house costs about \$300 per sow space. On the basis of about four litters a year with an average of 7 1/2 pigs per litter, this cost amounts to about \$10 per market hog produced per year.

A finishing house costs about \$10 per market hog produced per year. This cost is figured by assigning a cost of \$2.50 per square foot and allotting 10 square feet per hog and allowing four and a half to five months to finish a bunch of hogs.

A farmer can expect to invest about \$10,000 if he produces 500 hogs per year. This figure includes the cost of self-feeders and waterers.

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If the houses and equipment are bought new, the costs will be slightly more than for pasture production. However, Van Arsdall says that depreciation is greater with portable housing and partly compensates for this difference.

A confinement system can free land for more intensive cropping. The system can reduce labor needs and make it possible to distribute labor more evenly throughout the year, Van Arsdall said.

Another advantage of this setup is that pigs are easier to handle, sort and vaccinate.

Handling manure is the main disadvantage of a confinement system, according to Van Arsdall. Also, because the hogs are unable to supplement their diet as they would on pasture, a farmer with a confinement system must thoroughly understand the nutritional requirements of hogs. And diseases can cause havoc if good sanitation practices aren't followed, Van Arsdall warned.

Van Arsdall thinks there is a definite trend toward confinement production of livestock in Illinois.



Ag Short Course Offers 21 Courses

URBANA--Some 21 courses ranging from farm arithmetic to animal hygiene will be offered to young farmers during the University of Illinois winter short course in agriculture February 6 through March 17.

Short course supervisor Warren Wessels says that courses will be offered in agricultural economics and engineering, crop and livestock production and management and prevention and control of animal diseases.

Another course that has been highly popular during previous short courses is dating, engagement and marriage.

Wessels points out that the College of Agriculture sponsors the short course for young farmers who cannot attend college on a regular basis. Anyone 18 years old or older may attend. Although most students are between 18 and 23 years, ages of previous students have ranged up to 65 years.

Total costs for attending the short course range between \$190 and \$230. This total includes tuition, fees, books and supplies, housing and meals.

Prospective students may apply for \$100 scholarships offered by the Illinois Foundation FFA and many member banks of the Illinois Bankers Association.

Short course students, explains Wessels, share in all the privileges of regular University students. This includes athletic events and social functions.

For more information concerning the short course, contact your county farm adviser or vo-ag teacher or write to Warren Wessels, 104 Mumford Hall, Urbana, Illinois

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FOR IMMEDIATE RELEASE

## Custom Spray School Offers Wide Range of Topics

URBANA--Many topics and speakers offer something interesting to every person attending the Illinois Custom Spray Operators' Training School, here on January 25-26.

This unique school is designed for ground and aerial spray applicators. But farmers, agricultural chemical sales and development personnel, hybrid seed producers, vegetable canners and other interested persons may also attend.

The school focuses attention on the proper use of agricultural chemicals.

The specific program topics cover the latest developments in controlling insects, weeds and diseases and the proper use of certain application equipment.

Here are several of the 26 reports scheduled: (1) effect of rainfall and soil texture on pre-emergence chemicals; (2) weed control in corn, pre- and post-emergence; (3) corn leaf aphids in Ohio, Indiana and Illinois; (4) Simazine and Atrazine residues in soil; and (5) equipment for granular herbicides.

The majority of speakers come from the University of Illinois and Illinois Natural History Survey, which jointly sponsor the school. A number of other speakers, however, come from the University of Wisconsin, Purdue University and Iowa State University .

THE HISTORY OF THE UNITED STATES

The first part of the book is devoted to the early history of the United States, from the discovery of the continent by Christopher Columbus in 1492 to the establishment of the first permanent English colonies in the early 17th century.

The second part of the book covers the period from the end of the 17th century to the beginning of the 18th century, when the colonies began to assert their independence from British rule.

The third part of the book deals with the American Revolution, from the outbreak of hostilities in 1775 to the signing of the Declaration of Independence in 1776.

The fourth part of the book covers the period from the end of the Revolution to the beginning of the 19th century, when the United States emerged as a major power on the world stage.

The fifth part of the book deals with the period from the beginning of the 19th century to the end of the Civil War in 1865, a time of rapid expansion and internal conflict.

The sixth part of the book covers the period from the end of the Civil War to the present day, when the United States has become a superpower and a leading nation in the world.

Add Custom Spray School - 2

Registration for the school begins at 8:15 a.m. on January 25. The official program gets under way at 9:50 a.m. Early arrivals may watch movies concerning agricultural chemicals which begin at 9 a.m.

A registration fee of \$1.50 is charged. It includes the cost of a manual containing copies of all talks and reports.

The school meets in the Illini Union Ballroom on the University of Illinois campus.

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g Short Course Deadline Drawing Near

URBANA--The deadline of January 27 for enrolling in the University of Illinois winter short course in agriculture is drawing near, warns short course supervisor Warren Wessels.

Dates for the short course are February 6 through March 17. The six-week course offers young farmers an opportunity to keep up to date on modern farming practices. At the core of the short course are such subjects as the management of beef cattle, dairy cattle, hogs, sheep, crops and soils.

Livestock selection is also emphasized, as are agricultural engineering courses dealing with shop work and farm equipment. Marketing and prices and farm management are two courses offered in agricultural economics.

A brand-new course covers agricultural policy and programs. It analyzes past and present federal programs affecting agriculture.

Anyone, man or woman, 18 years of age or older may attend the short course. Costs for the course average about \$200. A number of 100 scholarships, however, are available. They're offered by the Illinois Foundation FFA and many member banks of the Illinois Bankers Association.

For more information on the short course, contact your county farm adviser or vo-ag teacher or write to Warren Wessels, 104 Mumford Hall, Urbana, Illinois.



Rural Pastors' Short Course Announced

URBANA--Illinois rural pastors and lay leaders will take part in a three-day short course at the University of Illinois discussing ways in which the church can more effectively serve the community.

This thirty-first annual Rural Pastors' and Lay Leaders Short Course, to be held January 30, 31 and February 1, 1961, has as its theme, "The role of the church in rural communtiy life."

Program speakers will discuss important problems facing the rural community and list some resources available for solving them. Visitors will also have an opportunity to meet and talk with U. of I. specialists in social work and rural development.

Arthur L. White, Henry county superintendent of schools, Cambridge, will speak Tuesday evening on public education in rural communities.

The three-day meeting will get under way Monday evening with an annual dinner in the University YMCA. Last year more than 100 pastors and lay leaders attended.





FOR IMMEDIATE RELEASE

## U. of I. Offers Extramural Ag Courses in State

URBANA--Karl E. Gardner, associate dean of the University of Illinois College of Agriculture, announces that the college will offer five extramural courses this spring.

The courses are:

1. Plan Pathology 377: Diseases of Field Crops. The first class meets Saturday, March 1, 9 a.m., at Jacksonville High School.
2. Rural Sociology 317 (same as Sociology 317): Rural Community Organization and Analysis. This course meets at Benton in the Farm Bureau Building beginning Monday, February 13, at 6:30 p.m.
3. Agronomy 306: Fertilizers and Their Soil Reactions. Beginning Saturday, February 11, this course meets at Pekin High School.
4. Farm Mgt. 324: Farm Operation. This course meets at Edwardsville in the Farm Bureau Building beginning Thursday, February 9, 6:30 p.m.
5. Ag Econ. 305: Ag Policies and Programs. Beginning Tuesday, February 14, this course meets at Springfield High School.

Persons taking the courses may receive graduate or undergraduate credit.

Gardner points out that these courses will be offered provided at least 15 students register. He adds that a registration fee will be charged. Registration will be held at the first class meeting.

Before registering, students should make sure that they have the necessary prerequisites for taking the course.

For more information, contact Gardner, 104 Mumford Hall, University of Illinois, Urbana.

Section 101 - General Provisions

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2. The purpose of this Act is to provide a general framework for the administration of the various departments of the Government.

3. The provisions of this Act shall apply to all departments of the Government, unless otherwise provided.

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U. of I. Holds Top-Level Ag Chemicals Meeting

URBANA--The University of Illinois and Illinois Natural History Survey join hands January 25-26 to sponsor one of the top agricultural chemical meetings in the nation.

Called the Illinois Custom Spray Operators' Training School, it will attract more than 800 people to the campus.

Every phase of the ag chemical world will be represented: the research men who spend painstaking hours and thousands of dollars developing new chemicals; chemical manufacturers and distributors; and custom spray operators and farmers who apply the chemicals to fields and crops.

In brief, the school reports new developments in chemical warfare against crop and livestock insects and weeds. Much of the research reported will come from the U. of I. and I.N.H.S. But speakers are also traveling from Purdue, Ohio and Iowa State Universities and the Universities of Wisconsin and Missouri.

The school began 13 years ago largely through the efforts of extension entomologist H. B. Petty. At that time the agricultural chemical industry was in its infancy.

Since then it's taken giant strides as farmers strive to reduce weed and insect losses in producing crops and livestock. These losses amount to more than seven billion dollars annually.

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Farm Managers Discuss Challenge of Sixties

URBANA--Members of the Illinois Society of Professional Farm Managers and Rural Appraisers will converge on the University of Illinois campus for a two-day conference to closely examine some of the predicted farm trends for the sixties.

Registration begins at 12:30 p.m. Thursday, February 2, in the Illini Union building. The meeting ends Friday afternoon, February 3.

W. N. Thompson, U. of I. farm economist, will serve as moderator of a panel discussing the meaning of these trends to farm managers.

The panel, and the subject each will discuss, includes E. H. Foreman, Bloomington, developments in soils and crops; Tillman Bubenzer, Noblesville, Indiana, prospects for livestock production; Denver Kunz, Carlinville, trends in buildings and equipment; and Nye Bouslog, from the Union National Bank of Macomb, views of farm financing.

Later Thursday afternoon members will have an opportunity to question a group of specialists on highway condemnation appraisal.

Panel members are Richard E. Quinn, special assistant attorney general, attached to the Illinois Division of Highways, Springfield; Wallace M. Mulliken, Thomas, Mulliken and Mamer, Champaign; and Earl F. Crouse, Farm Business Council, Inc., Urbana.

N. G. P. Krausz, U. of I. professor of agricultural law, will compare the advantages and disadvantages of farm partnerships and farm corporations. Krausz shares the evening program with A. J. Berwick, president of Doane Agricultural Service, Inc., who is going to discuss the legal liabilities of farm managers.

An annual award luncheon on Friday, February 3, will round out the program.

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FOR P.M. RELEASE WEDNESDAY, JANUARY 25, 1961

Note to Editors: Attached are several stories covering talks to be given at the Illinois Custom Spray Operators' Training School January 25-26 on the University of Illinois campus.

## Petty Describes Insect Outlook for 1961

URBANA--H. B. Petty said today that face flies might present one of the farmer's most important insect problems in 1961.

"They will be just as bad as last year, if not worse," he continued. "They'll probably be most severe in the northern one half to two thirds of Illinois. So far they have not been troublesome in the southern one third to one half. Face flies are so named because they cluster on the faces of cattle and horses."

Petty, describing the 1961 insect outlook, spoke before the Illinois Custom Spray Operators' Training School. He is an extension entomologist with the University of Illinois and the Illinois Natural History Survey.

He said that two Illinois areas could look forward to chinch bug troubles. One area includes DeWitt, Macon and Piatt counties and fringes of the counties surrounding them. The other covers southeastern Bond county and the north-central section of Clinton county.

Before chinch bugs develop, however, they must have dry, hot weather and thin, open stands of small grains.

The outlook for corn borers is not too serious. How severe they become depends mainly on weather and planting time. If farmers

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plant early and the weather is favorable for the borer, damage could occur north of a line from St. Louis to Paris, excluding extreme northeastern Illinois. This applies to field corn.

Grasshoppers will probably present moderate troubles north of a line from Lawrenceville to Carthage.

In southwestern and west southwestern Illinois, Hessian flies increased this past year. In southeastern and east southeastern Illinois, however, a dry fall and poor germination lowered the fall infestation of these pests that attack wheat.

Petty adds that Hessian flies were at a peak in 1956. Then their numbers decreased until 1958. Now he warns that they are approaching another peak, which may occur this year in some areas.

Northern counties can again expect a spittlebug problem. But it will not be serious. Central counties will have a light infestation. Since spittlebugs attack hay, and hay is a surplus crop in many areas, few farmers attempt to control these insects.

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Top Hybrids of 1960 Reported

URBANA--Last year's top-performing commercial corn hybrids in University of Illinois department of agronomy tests were announced today at Crop Performance Day.

The 1960 tests were conducted on 425 corn hybrids grown on 10 fields over the state, according to G. L. Ross, crops testing technician.

Ross points out that small differences found in any one year's tests do not necessarily mean that one hybrid is superior to a close second. High performance for several years is a more reliable indicator

Here are the hybrids that produced highest yields this past year:

Extreme northern Illinois at Woodstock: DeKalb 640, Pioneer 6707, Pioneer 6670, Moews 500A, P.A.G. 305.

Northern at DeKalb: Pioneer 5536, Moews CB65A; DeKalb 400, Troyer L13, Hulting 260SC.

East north-central at Ashkum; DeKalb 632, DeKalb X82030, Illinois 3347 (Station), DeKalb A703, Northrup King KT632.

West north-central at Galesburg: Bear OK96, Illinois 3343 (Station), DeKalb 805, Fooster F44, McAllister 55A.

East-central at Urbana: Pioneer 6201, DeKalb X91-005, Pioneer 312A, Van Horn V.H. 111, Steigelmeier Hi-B-Jack S-600.

Central at Stanford: P.A.G. SX19 (Exp. 15019), Pioneer 309A, Pioneer 312A, Steigelmeier Hi-B-Jack S-600, DeKalb 633.

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Add Top Hybrids of 1960 - 2

West-central at Bowen: Bear Unicorn X600, P.A.G. SX19, Prairie Gold D-896, Pioneer 80202, Whisnand, 852.

South-central at Greenfield: DeKalb 805, Illinois 8001 (Station), Bear Unicorn X606, Pioneer 6122, Moews 524.

Extreme southern Illinois at Wolf Lake: P.A.G. 444, Illinois 3348 (Station), Schenk's S-99W, DeKalb 1023, Schenk's S-90W.

The results from the Brownstown fields were discarded because of poor stands.

The researchers also reported the top-performing hybrids in test fields with increased planting rates:

Northern Illinois at DeKalb: Hy2x0h7 (Station), Illinois 3348 (Station), Illinois 1996 (Station), Sieben S-440E, P.A.G. Exp. 15018.

East-central at Urbana: P.A.G. SX19 (Exp. 15019), Monier 6-M-6, Pioneer 80202, DeKalb 805, P.A.G. 444, Pioneer 3756A.

South-central at Greenfield: P.A.G. SX19 (Exp. 15019), DeKalb 803A, DeKalb 640, Illinois 1332 (Station), Pioneer 321 (4549).

All hybrids tested averaged 93.8 bushels an acre. The highest average yield per acre was 112.7 bushels at Stanford in McLean County. Some hybrids showed definitely better standing ability than others.

Complete yields and other performance features of all hybrids tested will soon be available in a bulletin, "1960 Commercial Illinois Corn Tests," from the College of Agriculture, Urbana.

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Soybeans Show Little Response  
to Molybdenum Treatments

URBANA--No widespread benefits are likely in Illinois from treating soybeans with molybdenum, a University of Illinois agronomist reported today.

A. L. Lang, speaking before the annual Illinois Custom Spray Operators' Training School, cautioned, however, that research data are not sufficient to make specific and detailed local recommendations.

Lang reported that field tests were conducted on five experiment fields in 1960. Except for one field, the results showed no positive or negative effects from the molybdenum treatment.

At the Carlinville field, however, all molybdenum-treated plots averaged about 3 bushels an acre more than untreated plots. The Illinois soil scientists are now interested in making further chemical tests of the soil and the soybean seed to see whether they can identify the cause of this yield increase. On this field there seemed to be no relation between plots with lime, no lime or other fertility treatments.

Lang also reported survey results from 196 farmers. They showed that 47 increased their yields from using molybdenum-treated seed, 63 had no difference in yields and the rest had no fair comparison because they treated the whole field and left no check. Those who reported higher yields had increases of 1/2 to 4 bushels an acre for the molybdenum treatment.

Lang also reported that in 1960 Indiana tests at five locations molybdenum treatment failed to affect either growth or yield. Chemical analysis of the beans at the U. S. Regional Soybean Laboratory at Urbana showed no effect on the percent of protein or oil as a result of the treatment.



Farmers Spend \$3 Million for Insecticides

URBANA--Illinois farmers paid more than \$3 million for insecticides during 1960, H. B. Petty reported today at the Illinois Custom Spray Operators' Training School.

Petty also estimated that use of insecticides increased profits from crop production nearly \$7 million.

These figures represent insecticides applied against the major crop insects. Included are the cutworm, potato leafhopper, sweet clover weevil, corn borer, soil insects, corn leaf aphid, cloverleaf weevil and meadow spittlebug.

Farmers directed the majority of their insecticide money toward controlling soil insects. In 1960 they treated 1,900,000 acres compared with approximately 1,300,000 acres in 1959, a jump of 600,000 acres.

Soil insecticides alone, however, increased farmers' profits by more than \$5 million. Soil insects attack plants from underground, destroying the root system.

Petty said that insects in general were not so severe last year as in previous years. But certain ones, including underground corn-feeding insects, were as troublesome as usual.

Petty is an extension entomologist with the University of Illinois and the Illinois Natural History Survey.

## RECENT ADVANCES IN THE TREATMENT OF TUBERCULOSIS

During the past few years, the treatment of tuberculosis has advanced rapidly. The use of streptomycin, a new antibiotic, has revolutionized the therapy of this disease. It is a powerful bactericidal agent which acts against the tubercle bacillus. Its use has made it possible to treat patients who were previously considered incurable. The combination of streptomycin with isoniazid, another new drug, has further improved the results. Isoniazid is a potent tuberculostatic agent which acts by interfering with the synthesis of mycolic acid, an essential component of the tubercle bacillus cell wall. The use of these drugs has led to a marked reduction in the mortality and morbidity of tuberculosis.

Other important advances in the treatment of tuberculosis include the use of para-aminosalicylic acid (PAS) and cycloserine. PAS is a tuberculostatic agent which acts by interfering with the synthesis of folic acid, an essential component of the tubercle bacillus cell wall. Cycloserine is a tuberculostatic agent which acts by interfering with the synthesis of peptidoglycan, an essential component of the tubercle bacillus cell wall.

The use of these drugs has led to a marked reduction in the mortality and morbidity of tuberculosis. It is important to note that the use of these drugs must be accompanied by a high degree of patient compliance. The patient must take the drugs regularly and for a sufficient period of time to achieve a cure. The use of these drugs has also led to a marked reduction in the duration of treatment. Patients who were previously treated for two years or more can now be cured in a period of six to nine months. This is a significant advance in the treatment of tuberculosis.

The use of these drugs has also led to a marked reduction in the incidence of drug resistance. The tubercle bacillus has developed resistance to many of the drugs used in the treatment of tuberculosis. However, the use of streptomycin and isoniazid has led to a marked reduction in the incidence of drug resistance. This is because these drugs act against the tubercle bacillus at different sites, making it difficult for the tubercle bacillus to develop resistance to both drugs simultaneously.

The use of these drugs has also led to a marked reduction in the incidence of side effects. The tubercle bacillus has developed resistance to many of the drugs used in the treatment of tuberculosis. However, the use of streptomycin and isoniazid has led to a marked reduction in the incidence of side effects. This is because these drugs are highly specific for the tubercle bacillus and do not act against other organisms. The use of these drugs has also led to a marked reduction in the incidence of toxicity. The tubercle bacillus has developed resistance to many of the drugs used in the treatment of tuberculosis. However, the use of streptomycin and isoniazid has led to a marked reduction in the incidence of toxicity. This is because these drugs are highly specific for the tubercle bacillus and do not act against other organisms.

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Insecticides Not Recommended  
for Corn Leaf Aphids Yet

URBANA--An Ohio State University entomologist said today that he does not yet recommend using insecticides to control corn leaf aphids.

"We are still not certain that growers will receive a reasonable return for such an investment," C. A. Triplehorn continued. He spoke at the Illinois Custom Spray Operators' Training School.

Triplehorn added, however, that malathion and parathion can effectively reduce aphid populations. This means getting the insecticide into the plant's whorl at or just before tassel emergence.

The scientist explained that severe aphid damage seems to be associated with hot, dry seasons. In fact, it's sometimes difficult to distinguish drought damage from aphid damage.

The Custom Spray School is sponsored jointly by the University of Illinois and the Illinois Natural History Survey.



Simazine and Atrazine Often  
Hazardous to Following Crop

URBANA--Winter wheat and spring oats are often damaged when they follow a corn crop treated with simazine or atrazine, a University of Missouri researcher reported today.

O. H. Fletchall explained that these two weed killers are widely used in cornfields. Their residues, however, often remain in the soil long after the corn is harvested. Therefore they can damage certain crops planted after the corn.

These residues are NOT harmful to the crops planted after corn: sorghum, soybeans, cotton and corn.

Research scientists are still trying to determine whether the residues can affect forage crops seeded the following spring.

Fletchall spoke before the Illinois Custom Spray Operators' Training School on the University of Illinois campus.

He pointed out three outstanding characteristics of simazine and atrazine that make them so popular: (1) they control weeds for the entire season, (2) they are effective against almost all annual weeds that infest corn and (3) at reasonable application rates they do not injure corn.



Soil Insecticides Approved for Winter Applications

URBANA--A research entomologist with the Illinois Natural History Survey said today that he now approves the winter application of soil insecticides.

But J. H. Bigger said that winter applications are not designed to replace spring applications. They are merely a labor-saver, since farmers can make the applications during the slack season.

Up to now, entomologists have believed that winter applications were not so effective as spring applications. But after four years of testing, they appear to be equally effective in controlling soil insects that cause thousands of dollars of damage.

Farmers can make winter applications between December 1 and March 15. Disking in the application is not necessary even though the field is muddy, frozen or snow-covered. Freezing and thawing apparently work the insecticide into the soil before warm spring weather arrives.

Applications after March 15 must be disked in immediately. Otherwise the chemicals will evaporate when temperatures climb above 60 degrees.

Bigger used aldrin and heptachlor in his tests. He applied them as granules or in mixed dry fertilizers at the rate of 1 1/2 to 2 pounds per acre. If aerial applications are used, he suggests applying them in limited areas on a trial basis.

Bigger gave his report before the Illinois Custom Spray Operators' Training School meeting on the University of Illinois campus.

THE UNIVERSITY OF CHICAGO



FOR IMMEDIATE RELEASE

## UI Scientists Grow Cow Mammary Gland Cells in Test Tubes

URBANA--A group of University of Illinois dairy biochemists are working to answer a question that has for centuries puzzled scientists and laymen alike.

The question is: How do cows produce milk?

To carry out their research, the scientists have removed mammary gland tissue cells from dairy cow udders and transplanted them into small laboratory flasks.

The amazing thing is that some of the cells have been living and reproducing in the flasks for nearly three years.

Bruce Larson, U. of I. researcher in charge of the project, says that for a short time the test tube cells actually continue to make milk. After a few days, however, they lose this ability even though they continue to grow and organize as if they were still in the cow.

The U. of I. researchers are using the test tube cells to study processes that control formation of milk in the mammary gland. They hope that this research may ultimately unlock enough secrets to explain how milk is produced within the cells.

"Most of our efforts so far have been aimed at stretching the period in which the tissue cells produce milk-like constituents in the test tubes," Larson explains.

-more-

PHYSICS DEPARTMENT  
5712 SOUTH DIXIE AVENUE  
CHICAGO, ILLINOIS 60637

Dear Professor [Name]:  
I am writing to you regarding the results of the experiment we conducted last week. The data shows a clear correlation between the variables we studied, which is consistent with the theoretical model we discussed in class.

The first part of the experiment, where we varied the temperature, yielded results that were very similar to those we observed in the previous semester. This suggests that the underlying physical processes are quite robust and not significantly affected by the specific conditions of the experiment.

It is interesting to note that the error bars in our measurements are quite small, indicating a high level of precision in our data collection. This is a testament to the care and attention to detail that you and the other members of the lab have put into the project.

Based on the data, I believe we can conclude that the relationship between the two variables is indeed linear, as we hypothesized. The slope of the line is approximately [value], which is very close to the theoretical prediction. This agreement between experiment and theory is a very satisfying result.

The second part of the experiment, where we varied the [variable], also yielded results that were very consistent with our expectations. The data points fall very closely on the line we predicted, further supporting our hypothesis. It is clear that the physical principles we are studying are quite well understood at this point.

I am very pleased with the results of the experiment and the effort that you and the other members of the lab have put into it. The data is excellent, and the conclusions we have drawn are well-supported. I hope that this experiment has provided you with a deeper understanding of the physical processes we are studying.

Stretching this milk-producing period actually may be the key to the whole problem. If researchers can find the substances needed to make the test tube cells produce milk, they will have taken a giant step in finding internal factors within the cow that cause milk production.

In the research, tissue cells are taken from dairy cows immediately after slaughter. The U. of I. scientists transplant the tissue into small glass flasks.

Everything possible is done to make the environment within the flasks as nearly as possible like conditions in a live cow's udder.

For example, the flasks are stored in a giant incubator that keeps the cells at normal body temperature at all times. Also, the cells feed from a special liquid medium containing many of the essential nutrients usually carried to the cells in the blood stream of the cow.

For best growth, the cell medium has to be changed at least twice a week. Since complete sanitation is imperative to maintain healthy cultures, the medium change takes place in a small, completely sterile laboratory adjacent to the large one.

All instruments that go into this germ-free, glassed-in laboratory are carefully sterilized. Purified air is filtered into the room, and assistants who work there are required to wear special clothing and face masks.

What happens to the tissue cells as they grow in the laboratory?

Not too much growth occurs the first day or two, Larson explains. This is the period in which the cells keep producing milk. But after two or three days milk production drops off entirely. The

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cells start to grow vigorously, but in not quite the same way as they grew in the cow.

Therefore the mammary gland study is also providing information on what happens to body cells when they grow under abnormal conditions--information that is needed in cancer research to find why some cells become cancerous and others remain normal.

But, whatever type of research the mammary tissue cell study branches into, the main objective of the project remains the same--to find out how cows make milk.

It's a question that's more difficult to answer than most people think. So far it's been one of nature's best kept secrets--a secret that for centuries has been locked within myriads of tiny cells too small for the naked eye to see.

It is a pleasure to have you here, and we are glad to see you again.

The first part of the book is devoted to a study of the history of the

movement for the abolition of slavery in the United States.

The second part of the book is devoted to a study of the

present position of the movement for the abolition of slavery.

The third part of the book is devoted to a study of the

future of the movement for the abolition of slavery.

1848

Agricultural Industries Forum Coverage

Railroads Providing Flexible  
Service to Livestock Industry

URBANA--A major railroad executive today cited examples of how the nation's railroads are tailoring their services to meet the critical needs of the livestock industry.

J. E. Lehew, supervisor of livestock and packing-house products for the Pennsylvania railroad, reported that American railroads transport about 300,000 loads of livestock each year. He cited these examples of the services provided to accommodate the livestock industry:

Longer stock cars have been built to speed movement of slaughter livestock from market to packing plant at low rates.

The fattening in-transit privilege for feeder stock reduces transportation rates when fed cattle are shipped on to market.

Some railroads speed delivery between mainline and branch-line stations and at terminal junctions by substituting trucking service. "Piggy-back," or trailer-on-flat-car, shipments are employed to modernize rail service for livestock.

Special train schedules and "piggy-back" movements to reduce transit time are also used to move meat products from packing plant to consumer. Newer types of equipment are being built to promote better handling of meat. Loss and damage prevention is continually being studied.

Lehew spoke before the livestock marketing session of the University of Illinois Agricultural Industries Forum.



Agricultural Industries Forum Coverage

Trucks Speed Livestock and Meat Hauling to East

URBANA--A Chicago trucking firm executive today cited some revolutionary changes taking place in livestock and meat movement to the east coast as a result of new and flexible transportation methods.

Rollin F. Allyne of the Emery Transportation Co. reported that trucks hauled 53 percent of the livestock shipped from Chicago last year compared with only 30 percent four years earlier. He cited these reasons for greater use of trucks in livestock and meat shipments:

Trucks are more flexible in moving direct from shipper to receiver. Improved highways have reduced travel time. A two-man truck-driving team can move livestock from Chicago to New York in 18 to 20 hours.

Newer and larger trailers have raised the size of payload a truck can haul. The 40-foot possum-belly trailer can handle 32 to 34 steers compared with only 19 head in the earlier 35-foot single-floor trailer.

Improved refrigeration equipment and better highways are making it possible to truck more meat from midwest plants to the eastern markets. Although Allyne made no predictions, he reminded the audience that eastern packing plants were originally established because of the long transit time from the midwest--a situation that no longer exists.

Livestock shrinkage is less because the transit time is less. For handling meat, trucks also have an advantage because mechanical refrigeration equipment produces less shrink than the water-ice refrigeration in rail cars. More uniform temperatures can be maintained with mechanical refrigeration equipment. Even with a 100-degree temperature outside, the refrigerated trucks can maintain a zero-degree temperature inside and still have more refrigeration capacity. Truckers are being trained to distribute the cold by placing the packaged products in the most efficient way.

Allyne prepared his paper for the livestock marketing sessions of the University of Illinois Agricultural Industries Forum. It was presented by Harold Rubenstein, vice president of Emery Transportation Co.

Official Information from the Bureau

THE UNITED STATES OF AMERICA

SECTION 1. The purpose of this Act is to provide for the collection of information concerning the activities of persons who are engaged in the production, distribution, or sale of obscene materials.

SECTION 2. The Secretary of the Department of Justice is authorized to conduct such investigations as may be necessary to carry out the purposes of this Act.

SECTION 3. The Secretary of the Department of Justice is authorized to require any person who is engaged in the production, distribution, or sale of obscene materials to furnish such information as he may be required to furnish.

SECTION 4. Any person who fails to comply with the requirements of this Act shall be guilty of a misdemeanor.

SECTION 5. The Secretary of the Department of Justice is authorized to require any person who is engaged in the production, distribution, or sale of obscene materials to furnish such information as he may be required to furnish.

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SECTION 14. Any person who fails to comply with the requirements of this Act shall be guilty of a misdemeanor.

Agricultural Industries Forum Coverage

Farming Conditions Limit Full Mechanization

URBANA--Customary methods of producing crops and livestock on Illinois farms hinder the development of the most complete and efficient mechanized livestock units, a USDA agricultural economist at the University of Illinois stated today.

Roy N. Van Arsdall reported that livestock operations can be mechanized to a high degree. The high investment costs can be reduced by an intensive and highly specialized year-round production program.

But heavy seasonal demands for labor from crops produced on the same farm present a real problem to the farmer who wants to set up an intensive year-round livestock program. If he is fully employed with livestock, the planting and harvest periods put a great overburden on his labor. If he sets up his livestock program to fit into slack crop production periods, his buildings and livestock equipment may be only partly employed and he may not get the full returns for his investment.

Van Arsdall also warned that livestock automation is not a magic way to convert low returns into high ones. He emphasized that net income depends on net income per unit times volume produced. Low-producing cows, hens or sows can't be profitable for their owners even if their feed is handled mechanically, he pointed out.

But Van Arsdall believes that many good farmers are now handling only one-third to one-fourth as many livestock as they could manage if they improved their working methods. These are the farmers who would benefit from mechanizing their livestock production and boosting the volume produced per man.

Van Arsdall spoke before the feed, equipment and farm supply dealers' session at the University of Illinois Agricultural Industries Forum on the campus.

Industrial and Commercial

Industrial and Commercial

...-The main purpose of this report is to provide a general survey of the industrial and commercial conditions in the United States during the year 1914. The report is divided into two main parts, the first of which deals with the general conditions of the country, and the second with the conditions of the various industries and commercial activities.

...The first part of the report deals with the general conditions of the country, and is divided into three chapters. The first chapter deals with the general conditions of the country, and the second and third chapters deal with the conditions of the various industries and commercial activities.

...The second part of the report deals with the conditions of the various industries and commercial activities, and is divided into ten chapters. The first chapter deals with the conditions of the agricultural industry, and the second and third chapters deal with the conditions of the manufacturing industry.

...The fourth and fifth chapters deal with the conditions of the transportation industry, and the sixth and seventh chapters deal with the conditions of the commercial industry. The eighth and ninth chapters deal with the conditions of the public utility industry, and the tenth chapter deals with the conditions of the other industries and commercial activities.

...The report is based on the data collected by the Bureau of Mines during the year 1914, and is intended to provide a general survey of the industrial and commercial conditions in the United States during that year. The report is divided into two main parts, the first of which deals with the general conditions of the country, and the second with the conditions of the various industries and commercial activities.

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1915

Agricultural Industries Forum Coverage

Exports Not Complete Answer to Farm Problem

URBANA--Exports are not the complete answer to domestic farm problems, a U. S. Department of Agriculture official declared here today.

Paul E. Quintus, assistant administrator for market development, stated that exports can take some of the pressure off supplies. But they cannot absorb all the production that our highly efficient farms can make available, he emphasized.

Our agricultural exports are, however, helping destitute people in underdeveloped countries resist aggression and subversion. This is in line with our foreign policy objectives, he emphasized.

Quintus pointed out that during 1960 the value of farm products shipped overseas set a new record, about \$4.8 billion. These exports represent the annual production of about 60 million acres, which is equivalent to the entire harvested output of farms in Illinois, Indiana and Iowa and enough to take up most of the output of Kentucky too.

Special government programs have played a major role in the record amounts of wheat and flour exported this past year, he reported. Of the \$875 million worth of wheat and flour exports, about \$646 million moved out under special government programs. The remaining \$229 million worth was sold for dollars.

Feed grain exports are much less dependent on government help. Only about 5 percent of the 1960 exports moved out under special government export programs. Soybean exports set a new record of 142 million bushels last season, but were not involved in government export payments of any kind.

CHICAGO, ILL., MAY 11, 1938

ARTICLE IN FULL

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION  
PUBLISHED WEEKLY  
CHICAGO, ILL., MAY 11, 1938

ARTICLE IN FULL  
CHICAGO, ILL., MAY 11, 1938

COLLEGE OF AGRICULTURE and the  
DIVISION OF UNIVERSITY EXTENSION

FOR RELEASE WEDNESDAY, FEBRUARY 1, 1961

Agricultural Industries Forum Coverage

More Exports Key to Stopping Gold Loss

URBANA--Selling more American products abroad is the key to stopping the drain of American gold to foreign countries, an internationally known financial authority declared here today.

Nicholas Nyradi, director of international studies at Bradley University, told a group of agricultural businessmen that the favorable balance of American export trade in 1960 presents the only silver lining to the somber picture of our deficit in international payments and loss of our gold stocks.

Rising exports are proof that American products, in spite of several handicaps, can still compete on world markets, Nyradi declared. A policy to boost exports is a better remedy for the outflow of gold than many "snake remedies suggested by financial experts," he emphasized.

Such proposals as raising U. S. tariffs, limiting imports by quotas, reducing American travel spending or "buy American" orders to the armed forces commissaries abroad can only lead to retaliatory measures against American products on foreign markets. Such control measures would cause more damage than would be offset by the meager reduction in the gold outflow they would achieve, he stressed.

American export trade could also be increased by trying to sell our \$8 billion worth of farm surpluses on the world market, Nyradi

Department of Chemistry

Chicago, Illinois

Dear Sirs:

I have the honor to acknowledge the receipt of your letter of the 15th inst. regarding the matter mentioned therein. I am sorry that I cannot give you a more definite answer at this time, but I will endeavor to do so as soon as possible.

The matter is being considered by the appropriate authorities, and I will keep you advised of any developments.

I am sure that you will understand the need for a careful and thorough examination of the matter.

I am, Sir, very respectfully,  
Yours truly,  
[Signature]

Very truly yours,  
[Signature]

stated. This would have to be done at depressed prices, he admitted. But the premiums paid to farmers would help to improve our balance of international payments instead of bursting the storage bins of the Commodity Credit Corporation, he reasoned.

Nyradi labeled our favorable \$5 billion balance of trade in 1960 an economic miracle. It was achieved despite higher costs of production than our competitors had. He explained our favorable exports in this way: "The quality of our products is superior and our mass production methods are better and more efficient than those of many foreign countries."

But he warned that the situation isn't so rosy as the figures indicate. He pointed out that the most disastrous consequence of the 1959 steel strike was the growing influx of foreign steel and steel products on the American market. While American steel industry is operating at a low level of total capacity, some products, like nails and wire, are making further inroads on the American market.

To keep a favorable trade balance, we must think now about effective measures to hold it, Nyradi warned. American wages will continue to be higher than those in other countries for some time. Several foreign countries are also increasing their production efficiency.

He advocated more liberal depreciation allowances for American industry, a method used to a greater extent in foreign countries than here.

The growing competition of communist countries on the world market must also be watched carefully, he warned. Free countries must consider production costs in their trade policies. But communist countries can sell, trade, barter or even dump their products on the world market strictly for power political aims without the limitation of sound economic policy.

Nyradi was born and educated in Hungary and held the post of under-secretary of the treasury and minister of finance there. Increasing Soviet pressure brought him to this country in 1948. He is now an American citizen and has won renown for his knowledge of European affairs and communist activities. He spoke before the general session of the University of Illinois Agricultural Industries Forum.

The first part of the report is devoted to a description of the project and its objectives. It is followed by a detailed account of the work done during the period covered by the report. The results of the work are then presented and discussed. Finally, the report concludes with a summary of the work done and a list of references.

The work done during the period covered by the report has been of a general nature. It has consisted of a study of the various factors which influence the rate of reaction between two substances. The results of this study are presented in the following table:

The rate of reaction between two substances is influenced by a number of factors. These factors are: the concentration of the reactants, the temperature, the surface area of the reactants, and the presence of a catalyst. The rate of reaction increases as the concentration of the reactants increases, as the temperature increases, as the surface area of the reactants increases, and as the concentration of the catalyst increases.

The rate of reaction between two substances is also influenced by the nature of the reactants. For example, the rate of reaction between a solid and a liquid is slower than the rate of reaction between two liquids. This is because the surface area of the solid is smaller than the surface area of the liquid.

The rate of reaction between two substances is also influenced by the presence of a catalyst. A catalyst is a substance which speeds up the rate of reaction without being consumed in the reaction. The rate of reaction between two substances is faster when a catalyst is present than when it is not present.

The rate of reaction between two substances is also influenced by the nature of the products. For example, the rate of reaction between two substances is faster when the products are gases than when the products are solids. This is because the surface area of the products is larger when they are gases than when they are solids.

COLLEGE OF AGRICULTURE and the  
DIVISION OF UNIVERSITY EXTENSION

FOR RELEASE TUESDAY, JANUARY 31, 1961

Agricultural Industries Forum Coverage

Expects More Chemical Use in Weed Control

URBANA--The discovery that weeds are costly and generally can't be controlled by cultivating is causing farmers to use more chemicals, a University of Illinois agronomist declared here today.

Widespread use of fertilizers and insecticides has eliminated some barriers to high yields, F. W. Slife reported. Now weeds are getting the attention they deserve, he emphasized. On some farms weeds are not a problem. But on many others they can cut yields by 10 to 20 percent.

Slife cited research showing that giant foxtail reduced corn yields by nearly 20 bushels an acre and soybean yields by 10 bushels an acre. With a million acres of Illinois cropland infested, losses from this weed alone add up to millions of dollars, he pointed out.

New chemicals and chemical treatments are being developed at a rapid rate. If chemical companies continue to develop weed control chemicals as fast as they have in the past, Slife sees newer and better control methods ahead.

He cited granular forms of herbicide as one recent development. Because of their convenience, the granular forms of pre-emergence herbicides will probably become more important in the future than liquid sprays, Slife believes.

Slife spoke before the fertilizer and chemical session of the University of Illinois Agricultural Industries Forum.

THE UNITED STATES OF AMERICA

Department of the Interior

Geological Survey

Washington, D.C.

Report of the Director of the Geological Survey

for the year ending June 30, 1900

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Roberts Receives Farm Managers Award

URBANA--Thomas H. Roberts, Sr., DeKalb, this afternoon received the annual award of the Illinois Society of Professional Farm Managers and Rural Appraisers for outstanding contributions to Illinois agriculture.

Douglass F. Graves, vice-president of the Harris Trust and Savings Bank, Chicago presented the award, an engraved plaque, to Roberts at the annual award luncheon in the Illini Union ballroom on the campus of the University of Illinois.

The plaque read: "The Illinois Society of Professional Farm Managers and Rural Appraisers presents to Thomas H. Roberts, Sr., its highest award in recognition of his distinguished contributions to American agriculture as a business executive, civic leader and pioneer in plant and poultry genetics."

Roberts is president of the DeKalb Agricultural Association, Inc., DeKalb. He has made significant contributions in the fields of plant and poultry breeding research.

Roberts served as farm adviser in DeKalb county for ten years and was a member of the founding committees of the Pure Milk Association and the Illinois Farm Supply Company. In 1960 he received the Gamma Sigma Delta Award of Merit.

The annual award luncheon ended the two-day conference of the Illinois Society of Professional Farm Managers and Rural Appraisers at the University.



Agricultural Industries Forum Coverage

State Milk Price Control Against Public Interest

URBANA--A University of Illinois agricultural economist said today that state milk price control to prevent use of milk as a loss leader is not in the public interest.

R. W. Bartlett stated that state laws for the control of sales below cost have definite limitations. Usually the number of accounting and legal enforcement personnel are inadequate. Cost surveys used to set prices often permit inefficient milk distributors to continue their operations.

Federal laws already exist that could control use of loss leaders without permitting inefficient firms to stay in business, Bartlett believes. For this reason he recommended setting up a code of ethics in cooperation with the Federal Trade Commission and the anti-trust division of the Department of Justice. This would encourage pricing of milk and milk products at cost or above. He also recommended more funds for enforcement agencies to investigate and prosecute firms whose operations are illegal.

Bartlett cited the experiences of a number of states that had milk control laws at one time and have now abandoned them. He spoke before the dairy marketing sessions of the University of Illinois Agricultural Industries Forum.

Department of the Interior

Office of the Secretary

Washington, D.C. 20500

Dear Sir:

I am pleased to inform you that your application for a

license to practice as a geologist in the State of

California has been approved.

Your examination score was 85 percent, which is

well above the minimum requirement of 70 percent.

The Board of Geology has recommended that you be

licensed as a geologist in the State of California.

You may wish to contact the Board of Geology for

more information regarding the licensing process.

Very truly yours,

Secretary of the State

Office of the Secretary

Department of the Interior

Washington, D.C. 20500

(Of Special interest to  
SOUTHERN ILLINOIS DAILIES)

Dixon Springs Station Announces Sheep Day Program

URBANA--Southern Illinois sheepmen can gather new facts and information on sheep production when the Dixon Springs Experiment Station holds its annual Sheep Day February 15.

Managed by the University of Illinois College of Agriculture, the Station is located near Robbs in Pope county. The program features reports of sheep management and feeding studies conducted at the Station.

Reports included are (1) causes of lamb losses and suggested prevention, (2) early weaning and lamb management, (3) reports of lamb feeding trials, (4) synchronized breeding and management and (5) the value of wool and lamb pools.

The audience will also hear discussions of management practices that lead to a successful sheep business and changes in sheep production and marketing.

During the afternoon, the group will tour the Station's sheep barns and listen to U. of I. personnel describe the feeding and management operations.

The program starts at 9:30 a.m. and winds up at 3 p.m.





FOR IMMEDIATE RELEASE

## Cite Trends and Prospects for Illinois Poultry Industry

URBANA--Fewer farms, fewer laying hens and more eggs per hen describes the trends in the Illinois poultry industry in recent years, University of Illinois poultry specialists reported this week.

Speaking before the poultry sessions at the University of Illinois Agricultural Industries Forum, James R. Roush and S. F. Ridlen stated that in the past five years the number of Illinois farmers with laying hens has dropped 35 percent, the number of hens 27 percent, and the volume of egg sales 3 percent.

While the number of Illinois farms raising broilers has dropped 63 percent, the number sold per farm has more than doubled, and total sales have dropped about 23 percent.

The number of Illinois turkey farms has dropped 45 percent. But average flock size has jumped 151 percent and total turkey sales have risen 37 percent.

In another session industry representatives pointed out the changes needed to keep the Illinois poultry industry abreast of competition.

Sheldon Swann, Kauffman Turkey Farm, Waterman, expressed concern about the decline in number of turkeys grown in Illinois compared with neighboring states. He pointed out that Illinois growers have the advantages of nearby markets, abundant feed supplies, equal or better

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climatic conditions and ability to produce a high-quality product. He felt that the reason for not expanding had been stories of occasional high death losses, hard work and risks.

Speaking for the broiler industry, Fred Munroe, Joliet hatcheryman, pointed out that Illinois growers have the advantages of close markets and abundant low-cost feeds. But for the industry to prosper there must be close cooperation between grower, hatcheryman and processor. Each segment must run its facilities at near capacity to compete with producers in other states, he pointed out.

Ralph Thomas, DeKalb Agricultural Association, Inc., pointed out that the egg industry has been slower to move into larger units than the turkey and broiler industries. But changes are taking place in the marketing and production systems, he stated.

He reported rapid expansion in large-scale egg-producing units in the west and south. Midwest producers now face stiff low-cost competition from other areas. To meet the competitive challenge, Illinois producers must do these things:

Market eggs direct to consumer or join in a quality marketing arrangement under contract.

Produce only high-quality eggs.

Build flock size large enough to make eggs a major part of the total farm business.

Concentrate production areas to reduce the cost of moving supplies to big-city markets.

Have a source of high-quality started pullets or have an operation to grow pullets efficiently.

Plan production and keep feed costs low. Feed suppliers and hatcherymen must be well informed on financing, housing, nutrition, marketing, diseases and business management. In many cases these men might want to set up their own egg production and egg marketing businesses, Thomas concluded.

The first part of the report discusses the current state of the industry and the challenges it faces. It highlights the need for a strategic approach to address these challenges and the importance of innovation and collaboration.

The second part of the report outlines the key findings of the research. It identifies the main drivers of growth and the key areas for investment. It also provides a detailed analysis of the market and the competitive landscape.

The third part of the report presents the recommendations for the industry. It suggests a range of strategies and initiatives that can be implemented to improve performance and drive growth. It also provides a detailed analysis of the risks and opportunities associated with these recommendations.

The fourth part of the report provides a detailed analysis of the risks and opportunities associated with the recommendations. It identifies the key risks and provides a detailed analysis of the opportunities. It also provides a detailed analysis of the risks and opportunities associated with the recommendations.

The fifth part of the report provides a detailed analysis of the risks and opportunities associated with the recommendations. It identifies the key risks and provides a detailed analysis of the opportunities. It also provides a detailed analysis of the risks and opportunities associated with the recommendations.

Announces New U. of I. Vegetable Crops Specialist

URBANA--C. J. Birkeland, head of the University of Illinois department of horticulture, has announced the appointment of J. S. Vandemark as extension specialist in vegetable crops.

Vandemark replaces Norman F. Oebker, who is now in Arizona.

A native of Fairgrove, Michigan, Vandemark attended Michigan State University. He received a B.S. degree in 1941 and an M.S. in 1946. Last year he completed work for his Ph.D. from the U. of I.

Vandemark has worked extensively with sweet corn packaging, precooling, space fumigation and sugar fertilization during his career. Before coming to Illinois, he worked nine years as a Purdue University extension specialist. He has also been assistant director of the commodity division, American Farm Bureau Federation.

One of his more interesting jobs, from a geographical standpoint, was with the Central Aguirre Sugar Company in Puerto Rico, where he headed up the research division.

In his Illinois extension work, Vandemark works closely with vegetable growers and canners. He does much of his work in Cook, Madison and St. Clair counties. But he also travels extensively throughout the remainder of the state.

Married and the father of one child, Vandemark is a member of Gamma Sigma Delta, Sigma Xi and Phi Sigma.

CONFIDENTIAL - SECURITY INFORMATION

UNITED STATES DEPARTMENT OF JUSTICE  
 FEDERAL BUREAU OF INVESTIGATION  
 MEMPHIS, TENNESSEE  
 DATE: 5/15/68  
 TO: DIRECTOR, FBI  
 FROM: SAC, MEMPHIS (44-1987) (P)  
 SUBJECT: MARTIN LUTHER KING, JR.;  
 ASSASSINATION; CONSPIRACY;  
 RACIAL MATTERS; CIVIL RIGHTS  
 RE: Memphis teletype to Bureau dated 5/14/68.

Enclosed for the Bureau are two copies of a letterhead memorandum (LHM) prepared by the Memphis Office on 5/14/68. The LHM contains information regarding the activities of the Memphis Office in connection with the investigation of the assassination of Dr. King.

The Memphis Office has received information from reliable sources that the following individuals are active in the Memphis area and are believed to be active in the activities of the Memphis Office:

- 1. [Name redacted]
- 2. [Name redacted]
- 3. [Name redacted]
- 4. [Name redacted]
- 5. [Name redacted]

The Memphis Office is continuing to monitor the activities of these individuals and will report any further information received to the Bureau.

Very truly yours,  
 [Signature]

44-1987-101



FOR IMMEDIATE RELEASE

## UI College of Agriculture Prepares for Annual Farm and Home Festival

URBANA--Preparations are swinging into high gear as the University of Illinois College of Agriculture readies itself for another Farm and Home Festival.

The Festival annually attracts nearly 15,000 farm and city people from all parts of Illinois and from adjoining states.

Theme of this year's Festival is "Foundations for the Future." The giant show, set for April 6, 7 and 8, will revolve around four major exhibit areas designed to show how basic research today may open up new horizons for living in the future.

Here are a few examples of the type of research Festival visitors will see:

Dairy scientists are building their exhibit on the theme, "From Roughage to Milk." They'll also show how fruit flies, mice and goats are finding themselves in the unlikely position of aiding dairy cow genetic research.

"Flavor" is the theme of the food technology exhibit. The scientists will show how various factors affect food flavors. On hand also will be the U. of I. national champion dairy products judging team.

U. of I. entomologists are preparing glass cases to house live termites and ants to show how these insects live. Practical aspect of the exhibit is to show the best methods for controlling these pests.

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Slated to meet the "Home" section needs of the Festival are a number of exhibits designed for the modern homemaker.

For example:

A miniature electrically operated woolen mill will show various phases of wool cloth production.

Weaving, ceramics and jewelry designed by professional home economists will be on display.

The specially built wheelchair kitchen will show recommended dimension arrangements and storage ideas adapted for wheelchair use.

Foods researchers will display wise use of food freezers, a variety of packaging materials and publications about food freezing.

Though most exhibits in the home section are concerned with the new and modern, the highlight of the section quite possibly may be two rooms set to display articles from a historic costume collection.

The display will include seven wedding gowns dating from 1830 to 1961. The gowns will be on figures and surrounded by palms to give a "wedding" atmosphere. Also on display will be historic fans, antique lace handkerchiefs and collars.

Saturday, April 8, is the annual Ag Student Guest Day and Home Economics Hospitality Day. High school students will have an excellent opportunity to see the campus, hear about career opportunities and learn how students live while going to college.

The Festival also includes the Town and Country Art Show, featuring the best works selected from local shows throughout the state.

It is noted that the 1950 Festival was the first to be held in the city of London, and that the festival was held for the first time in the city of London.

The festival:

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Nitrate Slows Hog Gains in Illinois Tests

URBANA--University of Illinois tests have shown that nitrate added to swine rations significantly slows gains.

A research assistant in animal science, J. T. Tollett, added 0.61, 1.23, 1.84, 2.4 and 3.17 percent nitrate, as potassium nitrate, to corn--soybean meal rations. A control group received no addition. He found that levels above 1.84 percent significantly depressed gains.

Further tests confirmed that the nitrate, not the potassium, caused the slower gains.

In another test, Tollett added varying levels of nitrate and vitamin A to a milo diet fed to hogs. In all cases, regardless of the vitamin A level, the rate and efficiency of gain were significantly slower. Dietary nitrate also increased the methemoglobin level in the blood, and this response was not affected by vitamin A supplementation.

In other words, the vitamin A did not prevent the toxic effects of nitrate in swine.

Tollett explained that nitrate toxicity and vitamin A deficiencies are becoming more serious in cattle and sheep. The vitamin A deficiencies occur even though the animals receive an adequate amount of the vitamin or carotene, the forerunner of vitamin A found in forages.

There is increasing evidence that these two problems, nitrate toxicity and vitamin A deficiencies, are linked together. If so, it's possible that they are increasing because of increased levels of nitrogen fertilizer being applied to crops.

[Illegible title]

[Illegible text block 1]

[Illegible text block 2]

[Illegible text block 3]

[Illegible text block 4]

Add Nitrate - 2

Plants absorb the nitrate; then livestock absorb the nitrate from forages. The nitrate converts to nitrite in the animal's body. Nitrite prohibits the blood from transporting oxygen--consequently the animal suffocates.

Only one or two cases of nitrate poisoning have been reported in swine so far. But the U. of I. swine staff are already studying the problem so that they'll be one jump ahead if it does become widespread.

Tollett gave this report at the recent U. of I. Nutrition Conference.

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The first part of the report is a general introduction to the project. It describes the objectives of the study and the scope of the work. The second part of the report is a detailed description of the methodology used in the study. This includes a description of the data collection methods and the statistical analysis techniques used. The third part of the report is a discussion of the results of the study. This includes a comparison of the results with the objectives of the study and a discussion of the implications of the findings. The final part of the report is a conclusion and a list of references.



FOR IMMEDIATE RELEASE

## Trend to Country Hog Markets May Mean Higher Costs

URBANA--A University of Illinois livestock marketing economist reports that the shift from terminal to local hog marketing may bring some high marketing costs for Illinois hog producers.

E. E. Broadbent points out that several of the more efficient Illinois country markets handle over 100,000 head of hogs a year and will employ about three or four men. Many markets, however, handle fewer than 30,000 hogs and employ about two men at each buying point.

Obviously the larger volume gives a definite advantage to the large-scale market operator. His fixed costs for salaries, overhead, interest, taxes and maintenance will be spread over more hogs sold.

Broadbent believes that the large-volume operator could pay as much as 25 cents a hundred pounds more for hogs than the low-volume operator. He points out that, with a market volume of 20,000 hogs a year, a market employing two men must cover its costs with an average of 33 hogs a day. On some days, 10 to 12 hogs must cover expenses.

If many small local markets keep operating, they must do it either by paying relatively low prices for the livestock they buy or by employing low-salaried help. Broadbent questions whether either practice builds much stability into the market for livestock.

Looking to the future, he believes that hog markets will be forced to consolidate to reduce costs and to coordinate their services to livestock producers.



13th 4-H and FFA Dairy Calf  
Sale Set for February 25

URBANA--Early consignments and intense interest shown by breeders indicate that the 13th annual 4-H and FFA dairy calf sale will be one of the best of the series, says J. G. Cash, University of Illinois dairy specialist.

About 85 top-quality calves from Holstein, Guernsey, Brown Swiss, Jersey and Ayrshire breeds will be sold at 11:00 a.m. Saturday, February 25, at the College of Agriculture's stock pavilion.

This sale is unique in many ways. So far as is known, it was one of the first of its kind in the country. The entire sales force donate their services so that consignors won't have to pay a charge for selling. In the past 12 years 1,070 calves have been sold at these sales.

Only bona fide Illinois 4-H and FFA members are eligible to buy calves at this sale. 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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Dates for U. of I. Area Swine Days Announced

URBANA--The University of Illinois College of Agriculture has announced that its annual Swine Day will be held on campus March 28.

At the same time, dates for area Swine Days were announced as follows:

Mt. Vernon --- March 29

Carlinville --- March 30

Rushville --- April 3

Galesburg --- April 4

Amboy --- April 5

Research in hog management and production carried on during the past year at the University of Illinois is released at Swine Day. Programs for the area events are similar to that for Swine Day held on campus.

More details will be released when the program is announced.





FOR IMMEDIATE RELEASE

## Farm Boys Still Lag Behind in Attending College

URBANA--Associate Dean Karl E. Gardner of the University of Illinois College of Agriculture repeated again today that not enough farm boys are attending college.

He cited figures showing that rural farm youths comprise only 6.4 percent of all college students in the nation. Yet the rural population makes up 11 percent of the total population.

He also revealed another study concerning "plans" of youth to attend college. Only 34 percent of rural farm boys are planning to attend, compared with 55 percent of the urban boys. Only 20 percent of the urban boys are undecided about college, while 27 percent of the farm boys can't make up their minds.

Gardner has repeatedly warned that only one out of every three farm boys in the corn belt can expect to farm after high school graduation. This means non-farm jobs for the other two. While there are unlimited job opportunities off the farm, the college graduate advances faster, earns more money and has a greater job security than the boy with no college education.

There are vast opportunities in agriculture as well as in business, engineering, the social, biological and physical sciences, education and the humanities.

More details on agricultural careers will be presented at the College's Ag Student Guest Day Saturday, April 8 at Urbana. It's held in conjunction with the Farm and Home Festival. All interested high school students are invited to attend.



Suggests Rations for Fattening Lambs Rapidly

URBANA--The University of Illinois announces that it has completed another lamb-feeding trial testing rations that produce rapid gains.

The ration producing the best gains, an average of .44 pound daily, contained: (1) 64 percent ground corn, (2) 16 percent ground corncobs, (3) 10 percent soybean meal, (4) 5 percent alfalfa meal, and (5) vitamins, minerals, and antibiotics.

Sheep researcher E. E. Hatfield says that the lambs were fed free choice. Feed intake averaged 2.6 pounds daily.

He points out that the 64 percent ground corn and 16 percent ground corncobs are equivalent to the ratio of corn to cob in ground ear corn.

Hatfield adds that lambs received 15 milligrams of antibiotic per pound of feed, or 30 grams per ton. This is twice the level normally included in feeder lamb rations. This probably prevented digestive troubles in lambs put on a full feed immediately without a "warmup."

Hatfield warns lamb feeders to keep alert for "overeating" disease. Lambs receiving highly concentrated rations, such as the one described above, are more susceptible to this disease.



Foreign Students Get Acquainted  
With Illinois Farm Families

URBANA--A group of eight foreign students recently took a swing around northern Illinois to visit with farm families and study corn-belt farming at its best.

"The ideas we exchanged with the farm families, however, were much more important than the production know-how we swapped," The group unanimously agrees.

Evidently the farm folks felt the same way, for they often kept their guests up until 1 a.m. while talking and drinking coffee. And they were reluctant to bid them goodby, reports tour leader Frank Shuman.

Enrolled in the University of Illinois College of Agriculture, the students hail from Ireland and India. They include John T. Scully, R. P. Agrawal, D. S. Malik, M. N. Mishra, Rishi Ram, P. S. Shiwastawa and A. D. Tiwari. All except Scully and Tiwari are studying agronomy. Scully is working in agricultural economics, and Tiwari is studying veterinary medicine.

The group visited Livingston, McHenry, Whiteside and McLean counties. In Livingston county they toured a poultry farm that nets an income of \$27,000 on 40 acres. The owner explained that before launching his 13,000-bird project he first gained valuable experience in breeding, feeding, and managing poultry.

The group visited several outstanding dairy farms in McHenry county. They learned how sound production and management practices

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make this county produce more milk per square mile than any other county in the nation.

The story of a 25-year "Soil Fertility Build-Up Program" highlighted a luncheon and forum discussion in Whiteside county. Because of this county's outstanding soil testing program, farmers produce one of the highest corn yields in the corn belt. Over 80 percent of the farmers test their soil.

The group also visited a bulk fertilizer plant where nitrogen, phosphate, and potash are mixed and applied directly to the soil. They saw how mixtures are formulated according to soil test analysis.

The group learned the fascinating story of hybrid corn at a seed company in McLean county. Luncheon in the company's cafeteria was also a high spot of this stop. The cafeteria served rice with hot pepper and Indian chutney from Bombay, making the Indian guests feel right at home. In addition, a lovely vase made from Moradabad brass, which comes from northern India, was a table centerpiece. One of the women who helped prepare the food had bought the vase to show her interest in international good will.

These gestures of friendship and the many ideas that were exchanged helped the foreign students gain a better insight into the lives of typical Illinoisans, and also helped the people of Illinois get a better understanding of India and Ireland, their people and their problems.

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Youth Conservation Workshops Announced

A brand-new program for high school students interested in wildlife and other natural resources is planned for this summer, announces Farm (or Home) Adviser \_\_\_\_\_.

Students enrolling in the program can study soil, water, mineral, forest and fish resources in addition to wildlife. The program consists of seven "Youth Conservation Workshops" scheduled at the five state universities this summer.

Any boy or girl who is a sophomore, junior or senior in high school may enroll. Those who wish to enroll can take their choice of any one of the seven workshops. Fees will be charged that cover all costs except transportation to the workshops.

The program is sponsored by the Office of the Superintendent of Public Instruction in cooperation with the Illinois Departments of Agriculture and Conservation.

For more information, contact \_\_\_\_\_.

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FOR IMMEDIATE RELEASE

## Home Owners Increase Fertilizer Use for Lawns

URBANA--The desire to have an attractive lawn like their neighbors is stimulating more and more home owners to use fertilizers, according to a University of Illinois plant pathologist and turf grass specialist.

M. P. Britton reports that about 45 percent of all home owners use fertilizer on their lawns. On the average they used about 51 pounds last year. The average home lawn measures about 4,000 square feet, and the average fertilizer application runs a little over 12 pounds per 1,000 square feet.

The 43,136,000 home owners applying fertilizer used almost 1.1 million tons last year, Britton reports. The fertilizer industry has become aware of this growing market for its products off the farm. It has been estimated that 15 percent of all fertilizer sold in 1960 was applied for uses outside the traditional farm use.

Britton points out, however, that research is needed to find out more about the relationships between fertilizing and diseases and the best way to maintain healthy turf areas, such as in lawns, parks, golf courses, school grounds, cemeteries and airports.

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TO DIRECTOR

OFFICE OF THE DIRECTOR

RE: [Illegible text]

[Illegible text]

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U. of I. Publishes New Tenant-  
to-Landlord Report Book

URBANA--A new book of report forms to aid crop-share tenants and their landlords has just been published by the University of Illinois College of Agriculture.

The book provides the crop-share tenant with five report forms to be used during the year to keep his landlord informed of what is happening on the farm.

F. J. Reiss, associate professor of agricultural economics, prepared the book. He points out that regular reports, good business practices and prompt financial settlements help promote good relations between landlord and tenant.

The informed landlord takes more interest and has a better basis for making improvements and sound decisions. Tenants who can make accurate and timely reports earn the confidence of the landlord, he points out.

The first report form, to be prepared by February 1, is really a planning form to be completed by landlord and tenant working together. It shows the acreage planned for each crop, seed needs and the proposed fertility program for the year. The form also provides a place to suggest needed improvements, such as buildings, fences or tiling.

The next three forms, prepared by April 15, August 15 and December 31, are primarily financial reports. They provide spaces to show items for which the tenant owes the landlord and the landlord owes

-more-



the tenant. There is also space to report conditions of growing crops, yields on crops harvested and needed repairs.

In the fifth and final report, due at the end of the year, the tenant reports crop yields, production and inventories of landlord's crops on hand.

The report-form book has a three-year supply of the five forms used each year. The original copies are perforated for easy removal to send to the landlord. Carbon paper is supplied along with duplicate forms so that the tenant can keep a copy of each report he sends.

Copies of the new book are available for \$1.00 each from any county farm adviser or directly from the Department of Agricultural Economics, University of Illinois, Urbana.



Winter Fertilizer Application  
Equals Spring on Some Soils

URBANA--Winter applications of nitrogen often give yields equal to those from spring or summer applications, according to L. T. Kurtz, University of Illinois agronomist.

In five of seven experiments in northern Illinois, nitrogen response was similar regardless of time of application and kind of nitrogen used. However, one of the main drawbacks to early application is that available forms of nitrogen readily disappear from some soils.

Kurtz points out that every pound of nitrogen fertilizer will not necessarily appear in the crop or stay in the soil until the crop is ready for it. At high nitrogen levels there are often losses in efficiency, Kurtz says.

The scientist tested winter, spring and summer applications of fertilizers with two different forms of nitrogen, ammonium sulfate and nitrate.

Kurtz found that winter applications of nitrogen, regardless of the form used, work well on the moderately heavy soils in northern Illinois. However, winter applications should not be made on sandy or poorly drained soils.

Many farmers like to apply fertilizer during the winter because it helps distribute the work load throughout the year. Also, some fertilizer dealers offer reduced prices at that time.



Turkey Growers Announce Plans for Annual Meeting

URBANA--Illinois turkey growers will travel to the University of Illinois campus on February 23 for the annual State Turkey Growers' Association meeting.

The program will highlight three special subject-matter areas, reports U. of I. poultry specialist S. F. Ridlen. They are (1) a turkey merchandising workshop, (2) the turkey outlook for 1961 and (3) a panel discussion of turkey diseases.

Speakers include a number of University staff members, turkey growers and officials of the National Turkey Federation. In addition, Lloyd Geil, general manager of the Poultry and Egg National Board, Chicago, will speak.

The program begins at 10 a.m. in 135 Animal Sciences Laboratory, Urbana. The annual banquet climaxes the meeting at 6:30 in Latzer Hall.

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FOR IMMEDIATE RELEASE

## 20-Inch Corn Rows Show No Advantage; High Population Cut Yields

URBANA--Corn planted in rows 20 inches wide with a high plant food application yielded about the same as conventional 40-inch rows in 1960 tests at the University of Illinois agronomy research farm.

Agronomist L. B. Miller reports that the corn in 20-inch rows grew taller and was more spindly. Since the weather late in the season was quite favorable, the narrow-row corn stood quite well. But if storms or heavy winds had hit this corn, Miller suspects that they would have broken over more quickly than the corn in the 40-inch rows.

Corn in the 40-inch rows seemed to survive better. With two stalks per hill, the seedlings broke through the soil crust better, Miller observed. The ideal width for corn rows probably lies somewhere between 20 and 40 inches, he points out. Future research will explore this question.

In this experiment the agronomists also planted at rates of 16,000, 24,000, and 32,000 plants per acre. The 16,000 and 24,000 rates produced the highest yields. Miller believes that, with standard hybrids now available, the ideal plant population for most farmers will run about 16,000 surviving plants per acre.

All plots had received limestone. One plot received no additional treatment. Other plots received (1) a plow-down application of 500 pounds nitrogen, 250 pounds phosphate and 250 pounds potash per

-more-



acre, and (2) the No. 1 treatment plus 40 tons of manure per acre. Yields were about the same for the fertilized plots and the fertilized plots plus manure.

This result is not surprising, Miller points out. When fertility is adequate according to soil tests, adding more plant food doesn't hurt yields, but it doesn't help much either.

Agronomists plan to continue this study for several more years to watch the effects of heavy fertilization, plant populations and row widths. The heavy application of organic matter supplied by the manure might provide a clue to the effects of continuous corn on soils given this type of treatment.

The first part of the report deals with the general situation of the country and the progress of the work done during the year.

The second part of the report deals with the results of the work done during the year and the progress of the work done during the year.

The third part of the report deals with the results of the work done during the year and the progress of the work done during the year.

The fourth part of the report deals with the results of the work done during the year and the progress of the work done during the year.

Granular Herbicides Require  
Well-Adjusted Applicators

URBANA--To use some granular pre-emergence herbicides, you may need a machine so sophisticated that it will sprinkle only five-eighths of an ounce over a row that's 100 feet long and 14 inches wide.

Unfortunately, says Ellery Knake, University of Illinois agronomist, last year many farmers ran into trouble in spreading granular pre-emergence herbicides because the applicators were relatively new. A considerable amount of adjustment has been made, and more is expected.

When uniformly applied, pre-emergence granulars perform about the same as spray weed killers, Knake said.

Since granular herbicides do not require water or mixing, some farmers consider them more convenient to use than liquids. They drift less with wind. Some herbicides are irritating to the skin. This problem may be reduced but not eliminated with granulars.

However, the average cost of granular chemicals last year was about 70 cents an acre more than liquids. Then, too, granular herbicides require more storage space and handling than sprays.

In fields where weeds cannot be adequately controlled by cultivation or post-emergence applications of 2,4-D, Knake suggests that farmers try pre-emergence chemicals.

A farmer with spraying equipment should carefully check prices of materials and applicators before changing to granular herbicides.

A farmer who does not have spray or granular equipment for pre-emergence application should also compare prices and equipment carefully. He may feel that the granular's extra cost is justified by possible added convenience and safety. But he should make sure that the applicator can be accurately calibrated and that it will apply the granules uniformly.

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(1911) — The first part of the book is devoted to a general survey of the history of the United States from the discovery of the continent to the present time. The second part is devoted to a detailed account of the political and social conditions of the country at the present time. The third part is devoted to a discussion of the various theories of government and the principles of good government. The fourth part is devoted to a discussion of the various theories of education and the principles of good education. The fifth part is devoted to a discussion of the various theories of religion and the principles of good religion. The sixth part is devoted to a discussion of the various theories of art and the principles of good art. The seventh part is devoted to a discussion of the various theories of science and the principles of good science. The eighth part is devoted to a discussion of the various theories of philosophy and the principles of good philosophy. The ninth part is devoted to a discussion of the various theories of ethics and the principles of good ethics. The tenth part is devoted to a discussion of the various theories of politics and the principles of good politics. The eleventh part is devoted to a discussion of the various theories of economics and the principles of good economics. The twelfth part is devoted to a discussion of the various theories of law and the principles of good law. The thirteenth part is devoted to a discussion of the various theories of medicine and the principles of good medicine. The fourteenth part is devoted to a discussion of the various theories of agriculture and the principles of good agriculture. The fifteenth part is devoted to a discussion of the various theories of commerce and the principles of good commerce. The sixteenth part is devoted to a discussion of the various theories of industry and the principles of good industry. The seventeenth part is devoted to a discussion of the various theories of transportation and the principles of good transportation. The eighteenth part is devoted to a discussion of the various theories of communication and the principles of good communication. The nineteenth part is devoted to a discussion of the various theories of defense and the principles of good defense. The twentieth part is devoted to a discussion of the various theories of foreign relations and the principles of good foreign relations. The twenty-first part is devoted to a discussion of the various theories of international law and the principles of good international law. The twenty-second part is devoted to a discussion of the various theories of international relations and the principles of good international relations. The twenty-third part is devoted to a discussion of the various theories of international politics and the principles of good international politics. The twenty-fourth part is devoted to a discussion of the various theories of international economics and the principles of good international economics. The twenty-fifth part is devoted to a discussion of the various theories of international law and the principles of good international law. The twenty-sixth part is devoted to a discussion of the various theories of international relations and the principles of good international relations. The twenty-seventh part is devoted to a discussion of the various theories of international politics and the principles of good international politics. The twenty-eighth part is devoted to a discussion of the various theories of international economics and the principles of good international economics. The twenty-ninth part is devoted to a discussion of the various theories of international law and the principles of good international law. The thirtieth part is devoted to a discussion of the various theories of international relations and the principles of good international relations.

Soil Scientist To Study Plant-Opals

URBANA--A University of Illinois soil scientist is starting a study of a special kind of opal--called a plant-opal.

While a plant-opal isn't exactly like the usual semi-precious stone found at jewelry counters, it too contains large amounts of the mineral, silica.

With information from this basic research, A. H. Beavers, associate professor of soil mineralogy, hopes to unlock secrets about the kinds of vegetation on prehistoric landscapes.

Also, the results of the investigation may be valuable in discovering silica's role in plant nutrition.

The type and number of plant-opals found should be a big help in telling scientists the amount of weathering that has taken place, in pinpointing a soil's age and the vegetative history of a specific soil.

The study is to be supported by a two-year \$21,400 grant to the University from the National Science Foundation.

Plant-opals are microscopic grains composed mostly of silica and small amounts of other elements absorbed by the growing plant. Once formed in plants, these particles become part of the soil when the plant dies.

Plant-opals are found in all prairie grasses, such as big bluestem and Indian grass, as well as in corn and oats.

Working with Beavers is R. L. Jones, a doctorate candidate in soil mineralogy.



35 Counties Not Represented  
in U. of I. Ag Freshman Class

URBANA--A disappointing total of 35 Illinois counties is not represented by freshman men in the University of Illinois College of Agriculture this year.

Associate Dean Karl E. Gardner says that he's even more disappointed that county tuition scholarships were not awarded in 52 counties.

These scholarships pay tuition of \$150 a year for four years. They are awarded on a competitive basis to students entering the College of Agriculture.

These facts trouble Gardner and other college officials who realize that farm youth comprise only 6.4 percent of all college students around the nation. Yet the rural farm population comprises 11 percent of U. S. total population.

Gardner points out that many farm boys are not able to farm after high school graduation. A college education is their key to good jobs with status and above-average salaries.

Some of the counties not sending freshmen this year are in southern Illinois. But several northern counties, including Will, Lee, Bureau and Henderson, are not represented either.

Many other northern and central counties have only one or two freshmen enrolled. Some of them include Boone, Carroll, Ogle, Kendall, LaSalle, Mercer, Grundy, Kankakee, Putnam, Peoria, Woodford, Fulton, Douglas and Sangamon.

Farm boys interested in information about agricultural careers should attend the College's Ag Student Guest Day. It's planned in conjunction with the Farm and Home Festival, Saturday, April 8.

Department of Chemistry  
The University of Chicago

RECEIVED  
The University of Chicago  
Department of Chemistry  
Chicago, Illinois

Dear Sirs:  
I have the honor to acknowledge the receipt of your letter of the 15th inst. regarding the matter mentioned therein. I am sorry that I cannot give you a more definite answer at this time, but I will endeavor to do so as soon as possible.

The matter mentioned in your letter is one of the many questions which are being considered by the Department of Chemistry at the University of Chicago. It is a question of great importance and one which has attracted the attention of many of our leading scientists. I am sure that you will find the results of our investigations most interesting and valuable.

I am sure that you will find the results of our investigations most interesting and valuable. I am sure that you will find the results of our investigations most interesting and valuable. I am sure that you will find the results of our investigations most interesting and valuable.

Very truly yours,  
[Signature]  
[Name]  
[Title]



FOR IMMEDIATE RELEASE

## Sees Trend to Cow Herds in Corn Belt, Great Lakes Region

URBANA--A. L. Neumann, head of the University of Illinois beef cattle division, believes that beef cow herds will begin increasing in the Corn Belt and Great Lakes region.

"This trend is necessary to supply more feeder cattle to this area," says Neumann. He explains that new feedlots, increased size of present feedlots, and switch-overs from cow herds to feeding operations have made feeder cattle scarce.

Too, midwestern cattle feeders can no longer depend on the West and Southwest to supply feeder cattle. A heavy increase in cattle feeding in the West has almost dried up these sources.

The southeast can still produce more feeder cattle, but Neumann feels that the Corn Belt and Great Lakes region must take up the slack.

Scarcity has also caused the cost to jump. And since the cost of feeders is so high in relation to prices of fed or slaughter cattle, the farmer's chances of making a consistent profit from price spread are slim.

There's little chance that feeder cattle will become more plentiful for several years. It's hard for the supply to catch up with the demand, and the traditional sources are already producing at capacity. This leaves feeding margin as the farmer's only chance to make a profit.

Gains must be so economical that they will cover all costs and still produce a profit. This means that most farmers should feed calves or light yearling cattle. And they should feed rations containing a lot of cheap roughage. In the Corn Belt, no other crop can equal corn silage for producing cheap but moderately rapid gains.



Tranquilizer Increases Feed Efficiency in Illinois Test

URBANA--Although scientists originally developed tranquilizers to soothe the shattered nerves of man, animal science researchers have found that they affect beast as well.

For example, a University of Illinois test shows that tranquilized steers use their feed more efficiently than non-tranquilized steers. In this particular test, the treated steers were given tranquilizer implants in combination with stilbestrol, a feed additive that promotes faster gains.

Beef cattle researcher G. F. Cmarik conducted the test at the University's Dixon Springs Experiment Station. He used two groups of steers, both more nervous than usual. Both groups received a stilbestrol implant, but only one group received a tranquilizer implant.

Cmarik reports that he saw little, if any, quieting effect in the tranquilized group when a stranger moved through them.

During the first 56 days, however, the tranquilized steers gained about 1/3 pound more per head daily than the non-tranquilized steers. At the 56-day mark, the tranquilized group received another tranquilizer implant.

After that, the difference in gains between the two groups began shrinking. And by the end of the 202-day test, gains were almost the same: 2.09 pounds for untreated steers and 2.05 pounds for tranquilized steers.

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Add Tranquilizer - 2

For every 100 pounds of gain, untreated steers required a total of 1,343 pounds of feed. The tranquilized steers, however, required only 1,288 pounds, a substantial difference of 55 pounds. Both groups, of course, received the same ration: a complete self-fed ration consisting of ground ear corn, hay and soybean meal.

Costs of gain averaged \$21.09 per head for the tranquilized steers, but \$22.01 for the untreated steers, a difference of 92 cents.

The net market value of the tranquilized steers, less their feed costs, averaged \$209.97. For each non-tranquilized steer, the average was \$194.33.

Tranquilized steers also returned \$11.41 per head above feed costs and their cost as feeder steers. On the other hand, untreated steers returned an average of \$7.94.



Hog Show Allows Farmers to Check Carcass Data

EAST ST. LOUIS--The annual hog show at the National Stock Yards March 1 will give farmers a chance to check important carcass data for their hogs.

H. G. Russell, University of Illinois livestock specialist, reports that hogs will first be judged on the hoof. Carcass judging will follow. This procedure lets farmers see whether their hogs are producing desirable meat-type carcasses.

Some 30 cash prizes totaling about \$300 and 20 ribbons will be awarded by the St. Louis and East St. Louis Chambers of Commerce. The show is sponsored by the National Stock Yards in cooperation with the Extension Services of the Universities of Illinois and Missouri.

Anyone is welcome to come.

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Conclude Extension Review Conferences

URBANA--Dean and Director Louis B. Howard of the University of Illinois College of Agriculture said today that the series of area "review conferences" with county staffs of the Cooperative Extension Service and local leaders had been "highly successful."

The series of 10 conferences ended Friday with a meeting in Jacksonville. Participants in the area discussions included presidents of the local county farm and home bureaus, officers of the county agricultural and home economics extension councils, county farm and home advisers and assistants and representatives from the administrative staff of the Cooperative Extension Service.

Previous meetings had been held at Urbana, Lincoln, Effingham, Edwardsville, Carbondale, Carmi, Yorkville, Oregon and Galesburg.

Dean Howard pointed out that these conferences are held each year to review with local cooperating groups the on-going programs and problems of the Extension Service.

Discussions this year, he said, were focused on methods of financing extension work at the county level, administrative responsibilities of the county extension councils and county farm and home advisers, the relationship and responsibilities of the Extension Service with respect to the U. S. Department of Agriculture in carrying on educational programs, and the legal framework through which the Extension Service accepts grants from county farm and home bureaus and other local supporting groups.

The first part of the paper is devoted to a review of the literature on the subject of the interaction of a particle with a medium. It is shown that the interaction of a particle with a medium is a complex process which involves the interaction of the particle with the atoms of the medium, the interaction of the atoms of the medium with each other, and the interaction of the atoms of the medium with the electromagnetic field. The interaction of a particle with a medium is a complex process which involves the interaction of the particle with the atoms of the medium, the interaction of the atoms of the medium with each other, and the interaction of the atoms of the medium with the electromagnetic field.

The second part of the paper is devoted to a study of the interaction of a particle with a medium in the case of a particle of finite size. It is shown that the interaction of a particle of finite size with a medium is a complex process which involves the interaction of the particle with the atoms of the medium, the interaction of the atoms of the medium with each other, and the interaction of the atoms of the medium with the electromagnetic field. The interaction of a particle of finite size with a medium is a complex process which involves the interaction of the particle with the atoms of the medium, the interaction of the atoms of the medium with each other, and the interaction of the atoms of the medium with the electromagnetic field.

The third part of the paper is devoted to a study of the interaction of a particle with a medium in the case of a particle of infinite size. It is shown that the interaction of a particle of infinite size with a medium is a complex process which involves the interaction of the particle with the atoms of the medium, the interaction of the atoms of the medium with each other, and the interaction of the atoms of the medium with the electromagnetic field. The interaction of a particle of infinite size with a medium is a complex process which involves the interaction of the particle with the atoms of the medium, the interaction of the atoms of the medium with each other, and the interaction of the atoms of the medium with the electromagnetic field.

"Illinois has been extremely fortunate through the years," Dean Howard emphasized, "in having the closest possible working relationship with local leaders and cooperating groups at the county level. It is most desirable, and in fact necessary, to continue this cooperation in the future.

"Much of the credit for the success of our extension program must go to the county farm and home bureaus through their voluntary financial grants to the University of Illinois. These voluntary grants supplement available funds from state and federal sources. Without this support, the Extension Service would need to request additional state appropriations of more than \$1½ million annually to carry on the program."

At the same time, Dean Howard paid tribute to the work of the county extension councils, which work with the farm and home advisers in planning and carrying out the extension program in the respective counties. Council members, appointed by Dean Howard, serve without compensation.

The importance of local support and participation also was stressed by the extension administrative representatives at the conferences who reviewed the early history and development of extension work in Illinois.

Assistant Directors W. D. Murphy and Martha Dunlap pointed out that extension work was established in Illinois a number of years before either federal or state funds were made available for the establishment of the Extension Service as such. These early efforts, they emphasized, were clearly the result of the efforts of interested leaders at the local level.

Looking to the future, Associate Director Jack Claar reassured the participants that the Extension Service had every intention of continuing to operate within the framework of local support and local guidance.

"Extension would cease to be a real service to the people," Claar said, "if it should ever lose or give away this vital local guidance. It is our intention to see that we never do."

"It is the duty of the Government to provide for the welfare of the people and to maintain the peace and order of the State. It is the duty of the Government to provide for the welfare of the people and to maintain the peace and order of the State. It is the duty of the Government to provide for the welfare of the people and to maintain the peace and order of the State.

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Looking to the future, we are confident that the Government will continue to provide for the welfare of the people and to maintain the peace and order of the State. It is the duty of the Government to provide for the welfare of the people and to maintain the peace and order of the State.

"The Government is committed to the welfare of the people and to the maintenance of peace and order. It is the duty of the Government to provide for the welfare of the people and to maintain the peace and order of the State. It is the duty of the Government to provide for the welfare of the people and to maintain the peace and order of the State.



FOR IMMEDIATE RELEASE

## Raising Soybean Support Price Would Be Serious Mistake, Economist Warns

URBANA--Raising the 1961 support price on soybeans to \$2.30 as proposed by Secretary of Agriculture Freeman would be a serious mistake, a University of Illinois grain marketing economist warned today.

T. A. Hieronymus stated that raising the support price now would be reversing a sound policy that has worked.

Here is how Hieronymus sizes up the current soybean situation:

The policy initiated by soybean growers and carried out by the USDA since 1954 has been to set support prices low enough for competitive market prices to guide and regulate soybean production and use. As a result of this policy, the market for soybeans has shown tremendous growth.

Soybean use in the 1953-54 crop year totaled 278 million bushels. In the 1959-60 year, the market absorbed 572 million bushels, more than double the amount six years earlier. In 1960-61 use will run about 570 million bushels, the available supply.

The wisdom of the policy since 1954 cannot be disputed. There is no surplus, prices are high and use has doubled. The record shows that the market can set prices to guide production and use better than government can.

A larger acreage is called for in 1961. But there are better ways to encourage an increase than by raising the support price. It is

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not just the government that is saying we need more soybeans in 1961. Current market prices are also saying it.

Soybean growers also believe that raising the soybean price support would be unwise. They have seen the difference between policies followed with soybeans and other crops. They know that soybean price support policies have worked while other support programs have failed. While surpluses have mounted in feed grains and wheat, soybean production has risen and yet the larger supplies have been used up.

Hieronimus urges all soybean growers to write their congressmen and let them know how they feel on this matter. It is Congress that writes the laws that the U. S. Department of Agriculture must carry out, he concludes.



U. of I. Announces Plans  
for Ag Student Guest Day

URBANA--High school students planning a career in agriculture will head for the University of Illinois' Ag Student Guest Day Saturday, April 8.

Sponsored by the College of Agriculture, the Guest Day program covers admissions, costs, scholarships, loans, housing, campus life and, most important, careers.

The program starts at 9:00 a.m. with a short welcoming talk by University President David D. Henry. Assistant Dean C. D. Smith follows with a discussion of college expenses and financial aids. Then Kenneth McMillan, freshman from Prairie City, describes "My First Year as an Illini."

Donald Meyer, a graduating senior from Lebanon, will give tips on "Working Your Way Through College." Associate Dean Karl E. Gardner wraps up the general session with a dynamic talk called "Opportunities Unlimited."

Then the Guest Day students will divide into the following interest groups: (1) plant sciences, (2) animal sciences, (3) economics and industries, (4) education and journalism, (5) engineering, (6) forestry, (7) veterinary medicine and (8) food and dairy technology.

All students, teachers and parents are invited to attend the Guest Day, which is held on the last day of the Farm and Home Festival. After the program, students will have plenty of time to see the Festival exhibits.

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State Emergency Planning Committee Organized

SPRINGFIELD--The U. S. Department of Agriculture has organized a state emergency planning committee in Illinois to develop and carry out planning essential to meet food needs in national emergencies.

J. A. Ewing, statistician in charge of the Illinois Cooperative Crop Reporting Service, Springfield, has been appointed state chairman.

Under the National Plan for Civil Defense and Defense Mobilization, the U. S. Department of Agriculture is responsible for (1) production, processing, storage and distribution of food; (2) prevention and control of fires in rural areas; (3) protection of livestock and crops against biological and chemical warfare; and (4) protection of agricultural resources from radioactive fallout.

Each agency of the Department of Agriculture has special functions in this program, Ewing points out. The purpose of emergency planning committees is not to alarm people suddenly or unnecessarily. But everyone must recognize that we live in an atomic age subject to nuclear attack or accidents in peaceful use of atomic energy. The present emergency planning will be carried out as part of the regular work of various agencies. It can be compared with the practices followed by pioneers breaking the prairie sod, who carried their guns to the field as "built-in readiness" against Indian attack, Ewing explains.

To carry out emergency planning work throughout the state, committees have been appointed from the federal agricultural agencies

THE NATIONAL LABOR RELATIONS BOARD

PHILADELPHIA - The U. S. Department of Labor today announced that it has issued an order requiring the National Labor Relations Board to conduct a hearing on the charges that the National Labor Relations Board has discriminated against the United Brotherhood of Carpenters and Joiners of America.

The order, issued by the Department of Labor, requires the Board to hold a hearing on the charges that the Board has discriminated against the United Brotherhood of Carpenters and Joiners of America. The order also requires the Board to file a report with the Department of Labor within 60 days of the date of the order.

The charges against the Board are that it has discriminated against the United Brotherhood of Carpenters and Joiners of America in its handling of a grievance filed by the Brotherhood. The Brotherhood claims that the Board has failed to conduct a fair and impartial hearing on the grievance.

The Department of Labor is conducting an investigation into the charges against the Board. The Department is also conducting an investigation into the charges that the Board has discriminated against the United Brotherhood of Carpenters and Joiners of America.

Add Emergency Committee - 2

in each county. These include the Federal Extension Service represented by the county farm adviser, the Farmers Home Administration, Soil Conservation Service, Agricultural Stabilization and Conservation Committee (ASC), the Forest Service and the Agricultural Research Service.

Other members of the state committee are Willard E. Upp, state administrative officer for the Illinois State ASC Committee, Springfield; B. B. Clark, State Conservationist, Soil Conservation Service, Champaign; John P. Janus, Administrative Officer for Agricultural Marketing Service, Chicago; George H. Reuss, State Director, Farmers Home Administration, Champaign; Paul J. St. Amant, Forest Supervisor, Harrisburg; E. J. Wilson, Agricultural Research Service, Springfield; and John B. Claar, Associate Director of Extension, University of Illinois, Urbana.

(Note to editor: Chairmen of county committees are listed on the attached sheet.)

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2/27/61



COUNTY EMERGENCY PLANNING COMMITTEE CHAIRMEN IN ILLINOIS

ADAMS COUNTY

ASC Harold B. Markley

ALEXANDER-PULASKI COUNTY

SCS James C. Gillooly

BOND COUNTY

FA R. C. Broom

BOONE COUNTY

FA W. E. Reynolds

BROWN COUNTY

FA A. W. Haas

BUREAU COUNTY

ASC Verner R. Heaton

CALHOUN COUNTY

FA R. Randell

CARROLL COUNTY

FA B. W. Hutchins

CASS COUNTY

ASC Alvin D. Dobernus

CHAMPAIGN COUNTY

ASC Frank H. Schoone

CHRISTIAN COUNTY

FHA Ralph E. Adkins

CLARK COUNTY

ASC Robert E. Seed

CLAY COUNTY

FHA Joe S. Sailor

CLINTON COUNTY

SCS Donald W. Hopkins

COLES COUNTY

SCS Joseph K. Johnson

COOK COUNTY

FA C. F. Mees

CRAWFORD COUNTY

FA A. B. Lahr

CUMBERLAND COUNTY

FA J. C. Slaton

DE KALB COUNTY

FA E. E. Golden

DE WITT COUNTY

ASC Orval Sprague

DOUGLAS COUNTY

ASC Julian E. Thoman

DU PAGE COUNTY

FA W. E. Schmidt

EDGAR COUNTY

ASC Clarence W. Gumm

EDWARDS COUNTY

ASC Vernon D. Mason

ASC - Agricultural Stabilization and Conservation Committee

SCS - Soil Conservation Service

FHA - Farmers Home Administration

FA - Farm Adviser

FS - Forest Service



EFFINGHAM COUNTY

FA C. S. Cutright

FAYETTE COUNTY

FA J. B. Turner

FORD COUNTY

FA A. B. Rowand

FRANKLIN COUNTY

ASC Theodore R. Tiberend

FULTON COUNTY

FA F. L. Sharp

GALLATIN COUNTY

FA E. M. Lutz

GREENE COUNTY

ASC Harry M. Combrink

GRUNDY COUNTY

FHA Vincent L. Brandow

HAMILTON COUNTY

FA F. W. Kittinger

HANCOCK COUNTY

ASC Briscoe N. Menke

HENDERSON COUNTY

FA J. C. Eisenmayer

HENRY COUNTY

ASC Lloyd L. Engnell

IROQUOIS COUNTY

ASC Emery J. Baron

JACKSON COUNTY

ASC Claude A. Terry

JASPER COUNTY

ASC Homer E. Griffith

JEFFERSON COUNTY

FA D. O. Lee

JERSEY COUNTY

SCS Geo. T. Threlkeld

JO DAVIESS COUNTY

FA H. K. Ross

JOHNSON COUNTY

FS J. T. Turner

KANE COUNTY

ASC Ralph E. Williams

KANKAKEE COUNTY

SCS Reece L. Ayers

KENDALL COUNTY

FA J. H. Jacobs

KNOX COUNTY

ASC Everett Leigh

LAKE COUNTY

FA R. T. Nicholas

LA SALLE COUNTY

SCS R. H. Tomlinson

LAWRENCE COUNTY

SCS John C. Baker

LEE COUNTY

FA J. T. Somers

LIVINGSTON COUNTY

ASC Al J. Somers



LOGAN COUNTY

FHA Grant Kinsey

MC DONOUGH COUNTY

ASC Ollie F. DeGarmo

MC HENRY COUNTY

ASC Walter E. Austin

MC LEAN COUNTY

ASC Ernest R. Schirch

MACON COUNTY

ASC Howard R. Culp

MACOUPIN COUNTY

FA O. O. Mowery

MADISON COUNTY

FA T. W. May

MARION COUNTY

ASC Lee D. Britt

MARSHALL-PUTNAM COUNTY

FA H. D. McLaughlin

MASON COUNTY

ASC Fred Leithoff

MASSAC COUNTY

SCS Edward Trovillion

MENARD COUNTY

FA H. E. Short

MERCER COUNTY

ASC Daniel P. Seastrand

MONROE COUNTY

ASC Herman W. Eitmann

MONTGOMERY COUNTY

ASC Nora B. Crow

MORGAN COUNTY

ASC Wallace T. Hembrough

MOULTRIE COUNTY

ASC Orla O. Kimbrough

OGLE COUNTY

FA H. H. Fulkerson

PEORIA COUNTY

ASC Patrick J. Doyle

PERRY COUNTY

ASC Robert L. Lunnemann

PIATT COUNTY

FA A. C. Kamm

PIKE COUNTY

ASC Merlyn H. Barton

POPE-HARDIN COUNTY

FA C. E. Taylor

RANDOLPH COUNTY

ASC Jerry L. Coldwell

RICHLAND COUNTY

FA Glenn I. Ash

ROCK ISLAND COUNTY

FA A. J. Mullen

ST. CLAIR COUNTY

FA Denver C. Corn

SALINE COUNTY

ASC Grant Mings



SANGAMON COUNTY

FA Edwin Bay

SCHUYLAR COUNTY

FA W. C. Funk

SCOTT COUNTY

ASC Harold H. Kilver

SHELBY COUNTY

ASC Wm. J. Miller

STARK COUNTY

SCS Frank J. Biba

STEPHENSON COUNTY

FHA Robert J. Remington

TAZEWELL COUNTY

FA W. A. Bouslog

UNION COUNTY

ASC Hazel V. Hankla

VERMILION COUNTY

ASC Charles E. Williamson

WABASH COUNTY

SCS Lawrence Ellis

WARREN COUNTY

FA Stanley S. Sims

WASHINGTON COUNTY

FA W. D. Smith

WAYNE COUNTY

FA Fred J. Holhubner

WHITE COUNTY

ASC Robert F. Miller

WHITESIDE COUNTY

FA Fred A. Tincher

WILL COUNTY

FA A. A. Wicklein

WILLIAMSON COUNTY

FA C. W. Hoelscher

WINNEBAGO COUNTY

FA Richard G. Kerr

WOODFORD COUNTY

ASC Victor O. Malcom





## Report Changes in Illinois Livestock Enterprises

URBANA--Average size of Illinois livestock enterprises rose more rapidly during the late 1950's than in the earlier part, a recent report by University of Illinois agricultural economists R. J. Mutti and P. A. Gill discloses.

The average turkey flock was four times larger in 1959 than in 1949. The average size of swine, beef cattle and egg production enterprises doubled.

A small percentage of the farms have a high proportion of the livestock. For example, the report shows that less than four percent of the farms raising hogs accounted for about 18 percent of all sows farrowing. Four percent of the farms handling grain-fed cattle marketed 30 percent of the cattle. Less than 6 percent of the farms with dairy cows had 26 percent of the cows and heifers kept for milk. Four percent of the farms with hens and pullets accounted for 24 percent of the birds.

The number of Illinois farms disposing of dairy herds and laying flocks has been especially high.

The greatest share of large-scale hog enterprises are in the northwestern, western and southwestern areas of the state. The northeast and northwest have the largest share of large-scale grain-fed cattle and dairy operations. Substantial numbers of large enterprises, however, exist in every area of the state.

A detailed report on the relative importance of five different sizes of livestock enterprises and changes in each of nine districts of the state is given in AERR-41, "Distribution of Livestock Among Different Sizes of Enterprises Within Illinois." Copies are available on request from the Department of Agricultural Economics, University of Illinois, Urbana.



Good Management--Best Way  
To Fight Salmonella Bacteria

Careful management is not only the cheapest, but the best way farmers can fight salmonella bacteria, organisms causing fowl typhoid, paratyphoid and pullorum.

Dr. D. P. Rahn, University of Illinois animal pathologist, points out that, without careful management, poultry can die overnight from these diseases. Animals are not the only victims, however, as salmonella bacteria can cause food poisoning in man.

"You can prevent these diseases by keeping poultry away from hogs and other farm animals that harbor salmonella bacteria," Dr. Rahn told the recent convention of Illinois State Turkey Growers. "And if you've taken care of other animals first, clean your boots and wash your hands before working with your turkeys."

Salmonella bacteria, a serious threat to poultry every spring, can also be prevented by buying disease-free stock. Knowing the history of the breeding flock the poults came from is extremely important, Dr. Rahn said.

If one of your flocks does become infected, raise the infected birds separately. This, according to Dr. Rahn, prevents the disease from spreading. Other precautions include keeping infected birds warm and the area clean, and frequently collecting and disposing of dead birds.

"Although it's best to sell a flock after it's been cured, it's not always practical," Dr. Rahn admitted to the convention. "But,

Dr. J. B. Rose, University of Illinois School of Pathology  
1110 South Illinois Street

Dear Sir: I am writing you not only for the first time  
but also to express my appreciation for the  
information you have given me.

Dr. J. B. Rose, University of Illinois School of Pathology,  
1110 South Illinois Street, Urbana, Illinois, has  
been very helpful in the study of the  
disease. I have been very interested in  
the work you are doing and hope to  
visit you sometime in the future.

"You can prevent these diseases in your poultry and  
other animals by using the vaccine prepared by  
Dr. Rose. It is the best protection for  
your birds and other animals. I have  
used it and it has worked very well.  
I have taken care to give animals the  
vaccine and they have been very healthy  
and free from disease."

Dr. Rose's vaccine is a very effective  
protection for your birds and other  
animals. It is prepared by Dr. Rose  
and is the best protection for your  
birds and other animals. I have  
used it and it has worked very well.  
I have taken care to give animals the  
vaccine and they have been very healthy  
and free from disease.

It is one of your birds that I have  
been very interested in. I have  
been very interested in the work  
you are doing and hope to visit  
you sometime in the future. I have  
used the vaccine and it has worked  
very well. I have taken care to  
give animals the vaccine and they  
have been very healthy and free  
from disease.

I am writing you not only for the first time  
but also to express my appreciation for the  
information you have given me.

if you're going to save the flock for breeders, begin a blood-testing program."

The blood test, according to Dr. Rahn, is successful only if you use the particular type of salmonella bacteria that infected your flock. This explains the importance of having a veterinarian or laboratory make a definite diagnosis.

After giving the blood test, remove all birds that reacted to the test. Then wait one month and test the birds again. Follow this procedure until no birds react to the test.

Blood testing is the only way to find out which birds still carry or are infected by salmonella bacteria, according to Dr. Rahn. Carriers are birds that have successfully combated the disease, but that still carry the organisms. "Remember," Dr. Rahn warned, "drugs do not eliminate carriers."

Besides being transmitted by carrier birds, salmonella bacteria may infect poultry in three other ways:

1. The poult may be infected before hatching. When the infection is in the hen's ovary, bacteria can pass into the yolk of the developing egg.

When the hen's intestines are infected, salmonella bacteria in the feces can penetrate the unbroken eggshell during expulsion.

2. Birds can be infected by eating feed containing salmonella organisms.

3. Birds can be infected by eating feces of rats, mice and free-flying birds. These can harbor salmonella organisms for months.

Infected birds may or may not show symptoms. "Often the only symptom is a dead bird," Dr. Rahn, said. The death rate is highest among poults and death comes within five days after the poult is infected.

If the bird survives a few days, these symptoms may appear: The bird's wings droop, and its feathers become ruffled. Also, the bird is unthrifty, weak, loses its appetite and usually has diarrhea.

You're going to have the black on Sunday, with a third-party  
control.

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the general type of financial markets that we're talking  
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the market with a financial institution.

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is not what we want and we have the financial policy.

As we've seen, the market is not what we want in the long  
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Options being considered by market makers, especially  
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Festival Exhibit to Feature  
Soil Test Demonstration

During the University of Illinois Farm and Home Festival April 6-8, soil scientists will demonstrate a modern electronic instrument that tells whether or not the soil is acid.

This instrument, known as a pH meter, measures soil acidity. By direct reading it is possible to tell the amount of limestone needed to correct the acid condition.

The pH meter has come into use in Illinois soil testing laboratories in the past year, reports J. C. Laverty, University of Illinois soil scientist. Previously the need for limestone was determined by a visual test. Although this older test has done a good job, Laverty feels that the use of electronic testing equipment will reduce the possibilities for error.

Visitors to the Farm and Home Festival will have an opportunity to see how soil is tested with the pH meter. Those who bring a sample of soil with them can get a free pH test right on the spot.

During the afternoon speaking program on Friday, April 7, Laverty will report on "Recent Modifications in Illinois Soil Testing."



Urges Production of Higher Quality Lambs

URBANA--U. S. Garrigus, head of the University of Illinois sheep division, says that greater profits await sheepmen who produce higher quality lambs.

More than 75 percent of the gross income from midwestern sheep flocks now comes from lamb sales. In short, more and more consumers are demanding young, meaty lambs.

The revolution in chain store merchandising is speeding up this trend. At one time meat packers distributed all grades and weights of carcasses through their branch houses to small retailers.

Now the chain stores are swiftly increasing their percentage of total meat sales. They practice "specification buying," which means buying carloads of carcasses of uniform grade and weight. This leaves a declining market for off-sort lambs, so common in midwestern flocks, that sell at various weights and grades.

Garrigus urges farmers to intensify their lamb production so that they can produce higher quality, more uniform lambs that bring a higher price.

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FOR IMMEDIATE RELEASE

## Swine Day to Feature Report on Flooring for Pigs

URBANA--Hog producers wondering about which type of floor works best for pigs can learn some of the answers at the University of Illinois Swine Day March 28.

A. H. Jensen, swine research worker, will report University studies with steel mesh and concrete. He will also give a progress report on a current study comparing concrete slabs, wood slabs and steel mesh.

Jensen points out that the best type of flooring for growing pigs is not known. If researchers can determine which floors work best under certain conditions, farmers can produce hogs more efficiently.

Other Swine Day reports include ingredients in corn—soybean meal rations, gestation rations for sows and gilts and antibiotics for growing pigs. In addition, outlook specialist L. H. Simerl will report the hog price prospects for 1961. And Dr. J. R. Pickard, College of Veterinary Medicine, will discuss the University's experiences with specific pathogen-free (SPF) pigs.

The Swine Day program begins at 10 a.m. in the University Auditorium. Early arrivals, however, can inspect swine equipment displayed in the Stock Pavilion. The program winds up at 3:15 p.m.

Area Swine Days, similar to the Urbana Swine Day, will be held at Mt. Vernon, Carlinville, Rushville, Knoxville and Amboy. Watch this newspaper for more detailed information about them.



Evaporation Losses High

URBANA--Under normal conditions, 50 percent or more of the water lost during the growing season is due to evaporation from the soil surface.

Two University of Illinois soil scientists, M. B. Russell, head of the department of agronomy, and D. B. Peters, soil physicist, are looking for ways to cut down the evaporation so that water would seldom be a problem in Illinois.

The researchers covered the soil surface with water-proof plastic, stopping the loss of water by evaporation in several corn and soybean plots. Then the only water loss was through transpiration, or plant breathing. The plastic-covered plots used only about half as much water as the uncovered plots.

Nearly all of our soils retain enough water to meet these transpiration needs, Russell and Peters said. So if some practical method could be devised to prevent or greatly reduce evaporation from the soil, water would rarely be a problem.

When the soil surface is moist, increasing the number of plants per acre has only a minor effect on total water use. However, when the soil surface has been dry for some time, high plant populations can increase water use to the critical point.

In Illinois each acre of land receives 3,000 to 5,000 tons of water a year. About 80 percent of it is returned to the atmosphere by evaporation from the ground and transpiration from leaf surfaces of

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growing plants. Under Illinois conditions, it would take 200 or 300 tons of coal or 50,000 gallons of gasoline a year to supply as much energy as is used in evaporation and transpiration on each acre of land.

Since there are seasonal variations in water use as well as in rainfall, the basic problem in water management is to supply the extra water needed during the summer. To do this, the soil has to store some of the excess water from the rest of the year.

To find out how water reserves in the subsoil affect corn yields, the researchers covered some plots with plastic during the fall and winter. This kept the subsoil from storing excess water. Yields were substantially lower on these plots than on adjacent plots where the subsoil had been completely recharged with water by fall and winter rains.

Small irrigations that only moistened the topsoil did not overcome the yield deficiency. And at the same time total water use increased.

Soils differ a great deal in their ability to store and retain available moisture. Sandy soils do not retain much moisture. Summer rainfall is much more vital on these soils than on the finer textured soils.

Just as important are the soil's properties which can limit the root's size. Some Illinois soils have such dense subsoils that it is difficult or impossible for roots to penetrate them in search of subsoil water.

Russell and Peters discussed their research work on water use by row crops in an article in the recent issue of ILLINOIS RESEARCH.



Expect Lower Prices for 1961 Turkey Crop

URBANA--A University of Illinois agricultural economist this week reported some good news for those who like turkey. But for those who grow the turkeys, the news is not quite so good.

According to James R. Roush, turkey growers are expected to produce at least 14 percent more turkeys in 1961 than they did last year. More of these turkeys will be from the heavy breeds, and that will also add to the supply of turkey meat.

On top of a larger 1961 crop, there is 40 percent more turkey in cold storage from last year's crop than was held a year ago.

Population growth won't help the market for this year's turkey crop very much, Roush points out. Population has been rising only about 2 percent a year. This is far below the expected boost in 1961 turkey production. Rising supplies of chicken and red meats will also hold down turkey prices.

Turkey growers can expect to sell their birds for 3 to 4 cents a pound below last year, Roush believes. Prices may decline early in the season if those people holding birds in storage decide to sell them rather than hold until the larger supplies of new-crop turkeys move to market.

Roush spoke before the recent annual meeting of the Illinois Turkey Growers Association.

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FOR IMMEDIATE RELEASE

## Farmers Spend Millions For Unnecessary Drugs

URBANA--One Illinois farmer lost \$25,000 because he took the advice of friends who recommended the wrong drugs for his poultry.

Another farmer who had successfully wiped out all traces of blackhead wasted \$15,000 last year in an attempt to control diseases that didn't even exist on his farm.

Million of dollars are spent needlessly each year on unnecessary drugs and vaccines, according to Dr. J. O. Alberts, University of Illinois veterinarian.

"Because farmers don't realize that many diseases look alike, they often make the wrong diagnosis," he explained. "Or if they've never seen the symptoms, they'll seek advice from the neighbor down the road or others not fully informed."

This, according to Dr. Alberts, is the wrong approach. Only qualified personnel, such as a veterinarian or diagnostic laboratory, have the knowledge and equipment to make an accurate diagnosis.

As an example of wasted efforts, Dr. Alberts told of a farmer who owned 16,000 turkeys. When the birds began dying, the farmer administered medicine recommended by friends who guessed at the disease. Seven weeks later some 10,000 turkeys had died.

"This farmer lost \$25,000 in birds--not to mention the cost of medication and his time--before he came to the lab for an accurate



diagnosis," Dr. Alberts said. "Such losses would not have occurred if the correct diagnosis had been made the first week."

No more than 4 percent of the bird's total market value should be spent on medications and vaccines, according to Dr. Alberts. And this figure will decrease within the next 10 years. Farmers who spend more than 10 cents on medication and vaccines for each turkey marketed, 20 cents a year per breeder turkey, 2 cents per broiler chicken and 5 cents a year per laying hen will not only be spending too much, but risking a profit.

These figures indicate the importance of making an accurate diagnosis of disease and taking prompt and proper action to control it. "An experienced flock owner can guess diseases about 50 percent of the time," Dr. Alberts admitted. "But veterinarians have a much higher percentage of accuracy. By performing a post-mortem examination and knowing the flock's history and behavior, the veterinarian can accurately identify diseases in 70 to 75 percent of the outbreaks. And when the veterinarian uses his own or another diagnostic laboratory, he's accurate 90 to 95 percent of the time.

"Drugs used at the right time are valuable crutches," Dr. Alberts said. "But farmers must recognize their limitations."



Record Number of Students Wind Up Ag Short Course

URBANA--A record number of students are wrapping up their last week of study (March 13) at the University of Illinois Winter Short Course in Agriculture.

This year's enrollment of 102 was a sharp increase from 84 last year and 76 in 1959. Forty-four Illinois counties and the state of Pennsylvania are represented.

Highlighting this final week will be the annual Short Course Banquet March 13, sponsored by the Illinois Agricultural Association. During the banquet the 29 boys who received short course scholarships will be recognized. The Illinois FFA Foundation and member banks of the Illinois Bankers Association awarded the scholarships.

The College of Agriculture offers the short course to farm boys who cannot attend college on a regular basis. Most of the boys graduated from high school one or two years ago, but anyone over 18 years old may attend.

Miss Sally Lockwood, Springfield, added the only feminine touch to this year's short course.

Of the 20 courses offered, the most popular are farm management, soil management and swine feeding and management. Although the boys are a little hesitant to admit it, they also rate dating, engagement and marriage as a favorite course.

REPORT NUMBER 100-1000

This report is a summary of the work done during the past year at the University of Chicago.

The work has been carried out in the Department of Mathematics and the Department of Physics.

The first part of the report is devoted to a study of the properties of the function  $f(x)$ .

The second part of the report is devoted to a study of the properties of the function  $g(x)$ .

The third part of the report is devoted to a study of the properties of the function  $h(x)$ .

The fourth part of the report is devoted to a study of the properties of the function  $i(x)$ .

Plant Scientist Receives Science Foundation Grant

URBANA--A University of Illinois plant scientist has received a three-year \$43,500 grant from the National Science Foundation to continue research on the effects of growth regulators.

John B. Hanson, professor of plant physiology, said that many widely used weed killers, such as 2,4-D, are plant growth regulators. Even though 2,4-D is a highly successful broad-leaf weed killer, scientists do not know exactly how it works.

2,4-D causes abnormal growth in plant cells which leads to the plant's death.

By investigating changes in the cytoplasm, the living material within plant cells, Hanson hopes to understand some of the reasons for the effects of growth regulators. Then, too, from this type of research information, better weed killers may be developed.

The title of Hanson's research is "Effect of Plant Growth Regulators on the Metabolic Activities of Subcellular Particles From Plant Tissues."

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## Dean Howard Pays Tribute to George H. Dungan

URBANA--George H. Dungan, 73, University of Illinois professor of agronomy emeritus, died suddenly at his home in Urbana on March 12, 1961. He had served on the University staff from 1917 until his retirement in 1955.

He graduated from the U. of I. in 1917 and received an M.S. degree in botany in 1921. He received a Ph.D. degree in plant physiology and plant pathology from the University of Wisconsin in 1925.

Since 1958 he had served as executive secretary of the Illinois Seed Dealers Association. He had also worked part time with the Illinois Cooperative Crop Reporting Service. He was a visiting professor of agriculture at Southern Illinois University in 1957. From 1953 to 1955 he was assigned to Allahabad, India, under the University's cooperative program with the International Cooperation Administration.

Dungan authored and co-authored three books on crop production and many scientific papers. He was a member of the American Society of Agronomy, American Society of Plant Physiologists and numerous scholastic and scientific honorary organizations.

Dean Louis B. Howard of the U. of I. College of Agriculture made this statement in tribute: "George Dungan's passing has taken from us a man whose every acquaintance was a close friend. His students, his associates on the faculty and those who knew him throughout the

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THE HISTORY OF THE UNIVERSITY OF TORONTO

The University of Toronto was founded in 1827 as King's College. It was the first university in the British Empire to be founded in North America. The university was founded by the British government as a result of the recommendations of the Select Committee on Education in 1827.

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Add George Dungan - 2

state all held him in high respect for his teaching competence, his research contributions and his quiet and friendly way of conveying the urge to live a better and more effective life.

"His two-year assignment in India extended in full measure these same talents on an international basis. His contributions to the improvement of agriculture through some 38 years at the College of Agriculture will leave us ever grateful for his dedicated service to the University and to his fellowmen."

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FOR IMMEDIATE RELEASE

## Lower Prices Cut 1960 Cattle- Feeding Returns, Report Shows

URBANA--Lower fed cattle prices dropped 1960 feeding returns sharply below those of 1959 for Illinois farmers.

In the 22nd annual feeder cattle report issued this week, University of Illinois agricultural economist A. G. Mueller reports that farmers received \$1.50 to \$2.50 a hundred pounds less for cattle they sold in 1960 than in 1959.

The average price paid for feeders in the fall of 1959 was considerably above the price received for fat cattle. This large negative price spread was a major cause of the lower returns experienced by cattle feeders. Feeding margins, the difference between costs of gain and selling price of the cattle, averaged \$1 to \$2 a hundred pounds lower last year than the year before.

Mueller reports that the returns for the long-fed calf and yearling programs were only about enough to cover feed and purchase costs, leaving little or no margin for labor, equipment and other cash costs. The short-fed yearling and heavy steer programs showed a margin above feed and purchase costs, but less than in 1958 or 1959.

Farmers following a long-fed good to choice steer calf system averaged only about \$7 a head above feed costs. A year ago they had about a \$17 return.

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Those who followed a long-fed yearling steer program were 53 cents per hundred pounds short of paying their feed costs. A year earlier they had \$22 to cover their other costs.

Returns for those who followed a short-fed yearling steer program averaged about \$9 a head compared with \$30 a year ago. Those who short-fed good to choice heavy steers averaged about \$16 a hundred above feed costs compared with \$26 in 1959.

Information in this report was supplied from the farm business records kept by members of the Illinois Farm Bureau Farm Management Service and covers cattle sold during the first 11 months of 1960.



Corn Borer Activity Depends on Weather

URBANA--Illinois farmers who are anxious about Mr. Corn Borer's 1961 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 help to control corn borers. 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 trend has continued for the past four years.

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

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

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

THE UNIVERSITY OF CHICAGO

Governor Kerner Feature Speaker  
at Farm and Home Festival

URBANA--Governor Otto Kerner will speak to the University of Illinois Farm and Home Festival on Friday, April 7, in the University auditorium. His appearance, along with the details on other speakers and exhibits, is reported in the official Festival program released this week.

In commenting on the Festival April 6-8, Dean Louis B. Howard of the College of Agriculture said, "Our three-day program, based on the theme, 'Foundations for the Future,' includes a variety of features designed to provide pleasure as well as practical information. It also gives us an opportunity to show you how we are using research to improve farming and family living in Illinois."

Four major exhibit areas will feature displays and demonstrations--the Agricultural Engineering Buildings, Bevier Hall, Canvas Arena (near the Genetics Building) and Stock Pavilion. Exhibit areas will be open from 9 a.m. to 5 p.m. and 6:30 to 9 p.m. on Thursday. On Friday and Saturday exhibit hours are 9 a.m. to 5 p.m. Special exhibit presentations are offered each day from 9:30 to 11:30 a.m. and 1:30 to 3:30 p.m.

Special events during the three-day exposition include the Town and Country Art Show, open house in the Child Development Laboratory, home economics film showing, College of Agriculture Alumni Association meeting, Ag Student Guest Day and Home Economics Hospitality Day on Saturday, April 8, and the Plow-boy Prom on Saturday night.

Copies of the program are available from any county farm or home adviser. Vocational agriculture and high school home economics teachers and senior high school principals have also received copies of the program.



Career Sessions to Highlight  
Ag Student Guest Day

URBANA--A series of 20 sessions on various agricultural careers highlights the University of Illinois Ag Student Guest Day Saturday, April 8.

The sessions include crops and soils, floriculture and ornamental horticulture; horticultural food crops; animal and dairy science; agricultural economics, industries and law; farm operations; agricultural education, extension and journalism; agricultural engineering and mechanization; forest production and wood technology; veterinary medicine; and dairy and food technology.

High school students attending Guest Day may choose the sessions of most interest to them. Each session will be repeated twice so that students may attend more than one.

The program starts at 9 a.m. in the University Auditorium. Several speakers will discuss admissions and costs of attending the University, campus activities and possibilities for students to work their way through college.

The first session on careers runs from 11:00 a.m. to noon. The second session starts at 2:00 and lasts until 3:00 p.m.

Guest Day is held in conjunction with the College of Agriculture's Farm and Home Festival. Students will have plenty of time to see the Festival exhibits after the Guest Day program.

The Home Economics Hospitality Day is also scheduled for Saturday, April 8.

All interested high school students, their parents and friends are invited to attend these functions.





FOR IMMEDIATE RELEASE

## Plan Automated "Agricultural Prosperity" Exhibit

URBANA--Blinking lights, bubbling fluid and moving parts controlled by automatic electric controls and a tape recorder are being combined to show the "Foundations for Prosperous Agriculture" during the University of Illinois Farm and Home Festival April 6-8 at Urbana.

The eye-catching exhibit operates through a complex electrical system with float control valves, air solenoid valves, synchronous motors, air pressure regulators and miscellaneous valves and tubing. But it is designed to show in a simple way the many factors that influence farm product prices and net income and how research is helping to reduce costs and raise farmers' incomes.

The center of the exhibit is a large tank of fluid to represent the total supply of agricultural products. A float in the tank automatically registers changes on the farm product price dial as the fluid supply in the tank moves up or down.

On the production side, combinations of land, labor, capital and management along with imports add to the total supply of agricultural products. On the other side, another pipe line drains down the fluid supply as the marketing system operates through assembling, storage, processing and merchandising of agricultural products.

When the supply of products rises above a certain point, the exhibit shows the creation of surpluses. As the supply of agricultural

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products drops below the normal level, the surplus stocks move into normal marketing channels.

Tied in with the changes in supply, prices farmers receive and surpluses created, another dial shows the corresponding effects on net income for farmers.

Another lighted dial flashes changes in production costs as farmers improve their efficiency, make adjustments and produce their crops or livestock for lower costs per unit of product. As production costs go down, the net income dial registers an improvement.

On the marketing side, an illuminated marketing cost dial also registers changes that take place.

During the five stages of the fluid and electrical system operation, a tape-recorded message explains what is happening, why prices go up and down, how these changes affect net farm income and how research is helping to improve production and marketing efficiency.

This exhibit is part of the agricultural economics exhibit at the 1961 Farm and Home Festival. Staff members will be present at all times to answer questions and discuss the various displays.

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Swine Day to Feature Report on Hygromycin

URBANA--The University of Illinois Swine Day program March 28 will feature a report on hygromycin, an antibiotic used as a worming compound for hogs.

Livestock specialist W. F. Nickelson will report University research that studied hygromycin's effect on reproduction when included in the rations of pregnant sows and gilts. The research shows that feeding hygromycin to sows has no harmful effect.

Another featured report will be given by Dean Wolf, editor of FARM JOURNAL'S HOGCAST. Wolf and a group of farmers recently toured many outstanding European hog farms. He'll discuss some of the most interesting farms they saw.

Other talks on the program include research reports, the 1961 prospects for hog producers and a discussion of specific pathogen-free (SPF) pigs.

The program gets under way in the University Auditorium at 10 a.m. and winds up at 3:15 p.m. The Hoof and Horn Club will serve lunch.

Similar programs will be held at Area Swine Days around the state. Dates and locations for these programs are March 29, Mt. Vernon High School; March 30, Carlinville High School; April 3, Scripps Park in Rushville; April 4, Knoxville High School; and April 6, Amboy 4-H Center.

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Soils Need Protection From Insects Every Year

URBANA--An extension entomologist with the University of Illinois and Illinois Natural History Survey, H. B. Petty, reports that many farmers are asking whether they should apply soil insecticides every year.

As a general recommendation, Petty has been answering "yes."

He cites one test field that receives a soil insecticide treatment one year. But the next year only half of the field was treated. The result: the half that was treated in both years had a five percent greater crop stand.

As another example, Petty cites one field that received a double dosage of soil insecticides one year, but none the next. What happened? Cutworms caused such severe damage that the owner replanted the entire field.

Petty points out that there are two soil insects, the northern corn rootworm and the wireworm, that could be effectively controlled by making applications every two or three years. But there are a dozen other destructive insects, such as the corn root aphid and cutworms, that require annual applications to control them.

Petty recommends using aldrin or heptachlor as soil insecticides. If they are broadcast, use 1 1/2 pounds per acre. If they are applied in the row at planting time, use only 1 pound per acre.

THE 1950-1951 SEASON

The 1950-1951 season was characterized by the difficulty of  
planting and harvesting. Heavy rains in the early season had  
the farmers are being advised that they should only plant in  
dry spots.

In a general assessment, the 1950-1951 season was  
the most successful that has been recorded in the  
history of the area. The total yield of the 1950-1951  
season was 100% of the total yield of the 1949-1950  
season. The reason for this was that the 1949-1950  
season was a very dry one.

As a result of the heavy rains, the 1950-1951  
season was a very successful one. The total yield of  
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Heavy rains in the 1950-1951 season had a  
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for this was that the 1949-1950 season was a very  
dry one.

1950-1951

College of Agriculture Alumni  
Schedule Annual Meeting

URBANA--The University of Illinois College of Agriculture Alumni Association will hold its annual meeting on Thursday, April 6, at 10:30 a.m. in Room 314 Illini Union on the campus. This is the first day of the annual Farm and Home Festival.

Frank Shuman, the featured luncheon speaker, will report his experiences in India and Afghanistan with the International Cooperation Administration and University of Illinois programs. Shuman graduated from the College of Agriculture and served for many years as Whiteside county farm adviser.

Awards for outstanding service will be presented to four agriculture alumni. New officers and directors will be elected, and committees will report their activities during the morning business session.

Luncheon reservations should be sent to Karl E. Gardner, secretary, 104 Mumford Hall, Urbana, by April 3. Anyone who has ever attended the College of Agriculture is invited.

Association officers and directors for the current year are Fred Hoppin, Lincoln, president; Roy Yung, Springfield, vice-president; Karl Gardner, Urbana, secretary-treasurer; John Morris, Chadwick; Fred Painter, Ottawa; DeVere Mummert, Astoria; Donald Allen, Carrollton; Karl Adams, Bloomington; William Dimond, Lovington; Curt Eckert, Belleville; Eldon Powel, Effingham; W. C. Anderson, Marion; Frank Fieber, Albion; Don Wilken, Danforth; and Melvin Sims, Liberty, directors.



Corn Breeder Suggests More Corn For Special Uses

URBANA--With the present abundance of corn in the United States, a University of Illinois corn breeder suggested this week that breeders devote more attention to developing types of corn for special purposes.

Speaking before a special symposium of breeders, nutritionists and corn-processing industry representatives, R. W. Jugenheimer pointed out that the University of Illinois has been selecting for high oil and protein content for more than 60 years. These high oil and protein characteristics have been incorporated into inbred lines. Commercial hybrids for farm use became available in 1959.

These new high-oil hybrids contain about 30 percent more oil and 10 percent more protein than the average standard commercial hybrids grown by most farmers.

Corn yielding extra amounts of oil could prove valuable to millers, livestock feeders and starch manufacturers, Jugenheimer pointed out. Corn oil is a nutritious food and it also has many industrial uses. It has received both scientific and public attention because of the research on saturated and unsaturated fats and their influence upon cholesterol.

High-oil corn may be a more efficient feed than ordinary corn for livestock. University of Illinois experiments showed that lambs receiving the high-oil corn gained 5 to 6 percent faster on 6 to 7 percent less feed.



Jugenheimer pointed out that one of the problems in the Illinois research has been a lack of unrelated strains of high-oil corn. Work is now under way to find additional sources of high oil content. He believes that some of the new strains under development will perform better than the present high-oil inbreds and hybrids.

During the same meeting a chemist with a leading corn milling company encouraged further research with high-oil corn. S. A. Watson, Corn Products Co., Argo, reported that the wet milling industry wants corn with a higher oil content because the demand for corn oil is rising faster than the demand for starch. The higher value of oil over starch makes higher oil yields more desirable, he pointed out.

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FOR IMMEDIATE RELEASE

## "Sadie" Adds New Twist To Annual Festival Act

URBANA--"Sadie," the fistulated cow, annually a feature attraction at the University of Illinois Farm and Home Festival, will be on hand again this year. But U. of I. dairy scientists say the huge Holstein has added something new to her usual performance.

Sadie is well known for the fistula or hole in her side which helps scientists keep tab on what happens to the feed she eats once it enters her digestive tract.

Scientists say Sadie has been living with the famous "window" in her side for about four years, providing a wealth of vital information on rumen digestion. She has shown no ill effects from the plastic-covered opening.

For this year's Festival, dairy scientists have built a special periscope that will slide through Sadie's window to a point at least 10 inches inside the rumen. This periscope, with the aid of a sealed-beam light, will show what takes place in Sadie's rumen when she takes a drink of water or eats hay or grain.

Dairy scientist Carl Davis says the periscope and light were added this year so that people will have a better view of what happens behind Sadie's amazing window.

Part two of Sadie's show will give Festival visitors a chance to see what live rumen protozoa look like under the microscope.

Dairy scientists will take rumen samples from Sadie, put them on slides under a microscope and then use a projector to flash the image on a motion picture screen for all of the expected 15,000 Festival visitors to see.

Sadie will put on her show throughout the Festival. Dates are April 6, 7 and 8 in Urbana.



Illinois Dairymen Try Year-Round Drylot Feeding

URBANA--Year-round drylot feeding for dairy cattle, a practice common in many western states for years, is starting to take hold among Illinois dairymen--generally with promising results.

University of Illinois dairy scientist Leo Fryman estimates that more than 40 Illinois dairymen have successfully switched to drylot stored feeding.

Fryman says these dairymen agree that the key to a successful summer drylot feeding program is to feed the cows as much high-quality forage as possible.

Last year U. of I. dairy scientists studied records of 24 Illinois dairymen who had had one to three years' experience with year-round drylot feeding.

The records showed that total yearly production was no greater in these herds than in herds on pasture or daily green-chop feeding programs.

But production in the drylot herds was more uniform throughout the year. Fryman says this uniform production was undoubtedly due to the consistently high-quality forage the drylot herds received.

In general, the U. of I. survey showed that the 24 farms on stored feeding used less land to grow the forage for one cow than farms using other summer forage-handling systems.

The advantage in higher yields over daily green-chopping and daily rotational grazing was small. However, the survey showed a considerable yield advantage over continuous grazing.

Illinois Dairy Farming Shows Record

URBANA—Year-round dairy farming has reached a plateau in many ways, according to a report by the Illinois Dairy Farming Association. The report, issued last week, states that the industry is showing a steady upward trend in production and efficiency.

University of Illinois dairy economist Dr. E. M. Smith says that the industry has succeeded in producing more milk per cow than ever before. He notes that the average yield per cow has increased significantly over the past few years.

Smith says that the industry has also succeeded in producing milk of higher quality. He notes that the average butterfat content of the milk has increased over the past few years. This is due to the use of better breeding stock and improved feeding practices.

Last year's record was broken in 1954. The total production of milk in Illinois was 10.5 billion gallons, an increase of 1.5 billion gallons over the previous year. This was due to a combination of factors, including a larger herd and improved production per cow.

The report also shows that the industry has succeeded in producing milk at a lower cost. This is due to the use of more efficient feeding practices and improved herd management. The average cost of production per gallon of milk has decreased over the past few years.

But production in the dairy belt was down slightly from the year before. This was due to a combination of factors, including a smaller herd and a decrease in production per cow. However, the industry is expected to show a recovery in the coming years.

In general, the U. S. dairy industry showed that the 24 years of record feeding and herd management had paid off in the long run. The industry has succeeded in producing more milk at a lower cost than ever before. This is due to the use of better breeding stock and improved feeding practices.

The average in the dairy belt was down slightly from the year before. This was due to a combination of factors, including a smaller herd and a decrease in production per cow. However, the industry is expected to show a recovery in the coming years.

Fryman says it is impossible to make a flat statement about whether a particular farm should use stored feeding. The kind and amount of equipment on hand for winter feeding; the farm's size, topography and cropping system; herd size; and the amount of labor available must all be carefully considered in making a decision.

One way to approach the problem is to consider that when less land is required to grow forage for the herd, more land will be available to grow high-cash-value crops. Income from these crops will add to the gross income from the farm.

But Fryman warns that the extra income from these crops must be more than enough to pay for the extra equipment and labor required in a stored-feeding program.

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HOGCAST Editor To Appear On  
U. of I. Swine Day Program

URBANA--Dean Wolf, editor of FARM JOURNAL'S HOGCAST, will describe highlights of his recent tour of European hog farms at the University of Illinois Swine Day March 28.

Wolf led a group of 41 U. S. hog men, including 10 wives, on the tour last fall. They visited 13 of the best hog farms and five top research centers in Germany, Denmark, Sweden, England and northern Ireland. One farm the group toured finishes 19,000 hogs a year, using the amazing "hot house" method. The owner crowds hogs into tight houses without ventilation. And the pigs literally live in a steam bath. European research men say that hot, humid conditions in the hot house prevent such diseases as pneumonia.

A German farmer they visited raises about 14,000 hogs a year on one farm and finishes out 22,500 hogs on another. On the one farm he averages 80 to 90 percent conception, 9.8 pigs per litter and 2.3 litters per sow per year and produces 1 pound of gain on 2.7 pounds of feed.

On the other farm he produces five tons of pork per acre, feeding only a combination of silages, such as sugar beets, cooked potato silage and a ryegrass that yields 46 tons per acre when grown in barley harvested for grain.

Wolf will illustrate his report of these and other farms with color slides. He'll also describe the experiences of Danish and Swedish

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farmers in creating a market for pork by producing a top-quality, uniform product tailored to meet consumer preferences.

Reports of University swine research studies will also be presented during the program. Four examples include (1) controlling heat periods of sows and gilts, (2) types of flooring for growing pigs, (3) antibiotics for growing swine and (4) ingredients in corn—soybean meal rations.

The programs starts at 10 a.m. in the University Auditorium and winds up at 3:15 p.m.

Similar programs will be presented at Area Swine Days around the state. The dates and locations are March 29, Mt. Vernon High School; March 30, Carlinville High School; April 3, Scripps Park in Rushville; April 4, Knoxville High School; and April 5, Amboy 4-H Center.

Dean Wolf, however, will not appear at the Area Swine Days.

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Broiled Haylage Beefsteak  
Samples For Festival Visitors

URBANA--High-quality alfalfa forage tastes delicious--if it's packaged as haylage beefsteak.

Along with information for producing top-quality alfalfa, U. of I. agronomists are offering Farm and Home Festival visitors sample cubes of beefsteak from steers fed a ration of mostly haylage (high-moisture hay).

Sample cubes of the charcoal broiled haylage beefsteak will be served from 9:30 to 11:30 a.m. and from 1:30 to 4:00 p.m. each day of the festival and from 6:30 to 8:30 on Thursday evening at the exhibit in the Canvas Arena. The beef is provided by the Certified Alfalfa Seed Council.

The exhibit, Five Steps to Five Tons, outlines five steps for producing five or more tons of high-quality alfalfa forage per acre.

Here are the five steps recommended:

1. Meet Soil Requirements. Alfalfa does best on deep, well drained, slightly acid to neutral soil that is well supplied with plant nutrients. Limestone, phosphorus and potassium should be applied according to what the soil tests show.

At the exhibit, folks can get a free acidity test on a soil sample from their lawn or field.

2. Plant Certified Seed of Recommended Varieties. Agronomists suggest planting varieties that are winter-hardy. Free copies of

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The University of Chicago Library is pleased to announce the purchase of a new copy of the book "The History of the United States" by James Osgood Easton.

This book is a comprehensive history of the United States, covering the period from the first settlement to the present. It is written in a clear and concise style, and is suitable for both students and general readers.

The book is available in both hardcover and paperback editions. The hardcover edition is priced at \$15.00, and the paperback edition is priced at \$8.00. Both editions are available in English and Spanish.

The book is available in both English and Spanish. The English edition is priced at \$15.00, and the Spanish edition is priced at \$12.00. Both editions are available in hardcover and paperback.

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"Certified Alfalfa--the Profit Factor in Livestock Farming" will be available to help farmers select the best variety for their farms.

3. Get the Proper Start. Alfalfa seed planted more than 1/2 inch deep may not come up. When seeding in the spring, use oats as a companion or nurse crop.

4. Manage Established Stands Carefully. For top yields, agronomists suggest three cuttings a year in Illinois.

5. Harvest and Store Properly. To get top-quality forage, farmers must harvest and store it carefully. Haylage, silage, wafers, pellets and compact bales will be on display in this section of the exhibit.

Crop and soil scientists will be on hand to answer visitors' questions.

College-bound young people should visit the "Opportunities in Agronomy" exhibit, also in the Canvas Arena. Agronomy students and faculty members will be there to discuss futures in crop and soil sciences.

The dates for the 1961 University of Illinois Farm and Home Festival are April 6, 7 and 8. Last year more than 15,000 attended the annual event at Urbana.

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Apple Growers Aren't Getting  
As Rich As Consumers May Think

URBANA--The next time you buy a bag of apples for 20 cents a pound, you may think the apple growers are getting rich. But they're not.

In fact, many apple growers are being squeezed out of business. Why? Increasing production costs are forcing them to either increase their volume or lower their costs. "If they can't, they must sell out." says Frank W. Owen, University of Illinois fruit crops specialist.

Costs of producing a bushel of apples have steadily climbed. Now it costs the average grower \$2.60 for each bushel of No. 1 apples that he grows and packs. This does not include family wages or return on investment. Neither does it include storage costs of 35 to 50 cents a bushel if the apples are stored, or brokerage fees of 15 cents a bushel if they are sold through a broker.

This can add up to a total production cost of \$3.25 a bushel, or eight cents a pound.

Prices that growers receive for apples have also climbed, but not in proportion to production costs. For example, Michigan apples were recently bringing growers anywhere from \$3.45 to \$4.50 a bushel for the very best. Most prices, however, ranged between \$3.45 and \$3.65.

In four-pound bags, prices averaged between 8 and 10 cents a pound. (Michigan prices are similar to other midwestern prices.)

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1954—The year has been a year of rapid change for the University, and you may think the only change is the name of the year.

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The past 10 years have seen many changes occur in fruit orchards as growers fight to keep on top of the cost-price squeeze battle. New machinery and equipment and a vast new array of chemicals are some of the big changes.

High labor costs and, in some cases, a shortage of trained labor have brought about the need for new machinery and equipment. Too, disease and insect control have been increasingly complex, bringing a flood of new and usually expensive chemicals.

These changes in themselves have intensified the cost-price squeeze by increasing the capital investment and yearly operating costs of growers.

"Consumer buying habits are partly to blame for the growers' dilemma," says Owen. Consumers demand apples that are clean, either washed or brushed, graded and sized. They also prefer them packaged in plastic bags or in cellophane-covered trays. Each step requires extra labor or equipment and consequently more money. Growers pay these costs.

The commission men and jobbers who act as middlemen have also seen their costs rise. They are shelling out more money for operating costs all along the line.

Retailers, of course, are also faced with rising costs, such as for labor, handling smaller packages and offering consumers a variety of products in an attractive and convenient store.

This information might give you some idea why you, as a consumer, are asked to pay from 14 to 29 cents a pound for apples.

But Owen still wonders whether the costs from grower to retail outlet have increased enough to justify the tremendous difference in price paid to growers, around eight cents a pound, and price received from consumers, 14 to 29 cents a pound.

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Festival Offers Chance To Examine  
Veterinary Career Opportunities

URBANA--If you're a high school student who can't decide what to do after graduation, you may find the answer at a veterinary medical display at the University of Illinois Farm and Home Festival April 6-8.

Part of the display consists of slides showing students preparing for their roles in veterinary medicine. After getting a sound background from books, lectures and classroom discussions, these students get experience in the University's large and small animal clinics.

After graduation, some of these veterinarians will serve farmers, pet owners or zoos. Others will do research or work in public health and other fields.

The challenge of research appeals to many veterinarians. Vast numbers of vaccines, drugs and methods of controlling disease have yet to be discovered. Also, little is known about the zoonoses, diseases passed back and forth between animals and man. But these diseases, which number more than 100 and include tuberculosis and rabies, are so important that the University is building a zoonoses center.

Veterinarians play an important role in protecting man through public health programs. They inspect meat and milk and help to establish and enforce pure food laws.

Other areas in veterinary medicine include teaching, writing and producing films, tape recordings and TV programs.

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(Editor's Note: The following questions and answers present the general provisions of the Feed Grain Program. More information that will help guide farmers in making their decisions and further details of the program will be sent as soon as they are worked out.

Extension Editors.)

## QUESTIONS AND ANSWERS ABOUT THE 1961 FEED GRAIN PROGRAM

WHAT IS THE PURPOSE OF THE NEW FEED GRAIN PROGRAM?

Congress had these objectives in mind when it passed the new Feed Grain Law: (1) stop build-up in stocks, (2) provide modest increase in farm income, (3) reduce government costs, (4) stabilize feed costs, and (5) alleviate tight storage.

MUST EVERY FARMER PARTICIPATE?

No, the program is voluntary. Each farmer decides whether or not he wants to participate.

HOW LONG DOES THE PROGRAM LAST, AND WHAT CROPS ARE INVOLVED?

The law passed by Congress and signed by the President is for 1961 only and applies only to corn and grain sorghums. It makes no difference whether these crops are used for grain, fodder or silage.

HOW DOES A FARMER PARTICIPATE IN THE PROGRAM?

A farmer must cut his acreage of corn and grain sorghums at least 20 percent from his average acreage planted in 1959 and 1960. He will put this "diverted acreage" into soil-conserving uses.

WHAT BENEFITS DOES A FARMER GET FOR COOPERATING WITH THE PROGRAM?

He is eligible to receive the support price on his normal production of corn and grain sorghums and to receive a payment on each acre taken out of corn or sorghum. The national average support price

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Section 1

ARTICLE I

Section 1

All legislative Powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives.

Section 2

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Section 13

Section 14

Section 15

Section 16

Section 17

Section 18

Section 19

for corn will be \$1.20 a bushel and for grain sorghums \$1.93 per hundredweight. A support rate will be established for each county. Normal production on a farm is the base yield established by the county committee times the reduced acreage planted in 1961. He will also be eligible for supports on other feed grains as follows: oats, 62 cents a bushel; barley, 93 cents a bushel; and rye, \$1.02 a bushel.

HOW MUCH PAYMENT WILL A FARMER GET FOR TAKING LAND OUT OF CORN OR SORGHUMS?

Payments will be figured for each farm based on county average yields, the county support rate, the productivity index on each farm and the number of acres diverted on that farm. Suppose, for example, that the average yield in an Illinois county was 60 bushels an acre. The average support rate was \$1.20. The average payment for each diverted acre in that county would be 50 percent of the average yield times the support rate, in this case 30 bushels times \$1.20, which would be \$36 an acre. If the county committee has put a productivity rating of 100 percent on the farm, then the rate for the farm would be \$36 an acre. If this farm had a base of 100 acres and 20 diverted acres, the total payment would be \$720.

CAN A FARMER CUT HIS CORN ACREAGE MORE THAN 20 PERCENT AND RECEIVE PAYMENT FOR IT?

Yes, he can. If his base corn and grain sorghum acreage is 20 acres or less, he can take out anywhere from 20 to 100 percent of it. If he has a base of 20 to 100 acres, he can take out 20 acres plus an additional 20 percent of the base. For example, if his corn acreage base was 60 acres, he could take out 20 acres plus 20 percent of 60, or 12 more acres, to make a maximum of 32 acres. For farmers who have a base of more than 100 acres, the maximum that they can divert is 40 percent.

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HOW MUCH PAYMENT WILL HE GET IF HE TAKES OUT MORE THAN 20 PERCENT?

The payment per acre will be higher on those acres diverted above the first 20 percent. The payment will be calculated on the basis of 60 percent of the county yield instead of 50 percent as mentioned above.

Where the acreage base is below 100 acres, the payment rates are figured as follows:

First 20 percent of base acreage diverted--50 percent  
of county yield times diverted acreage times farm  
productivity index

Second 20 percent diverted--60 percent of county yield  
times diverted acreage times farm productivity index

Remaining acreage diverted--50 percent of county yield  
times diverted acreage times farm productivity index

HOW WILL PAYMENTS BE MADE?

County ASC offices will issue negotiable certificates to participating farmers. These can be exchanged for CCC grain or for cash. When a farmer exchanges his certificates for cash, he authorizes the Commodity Credit Corporation to act as his marketing agent to sell a specified amount of grain on the open market. If he decides to take grain instead of cash, the amount he receives will be figured on the basis of local market price.

Advance Payments. If a farmer desires, he can receive up to 50 percent of his expected total payment in advance. These advance payments can be made as soon as a farmer agrees to cooperate in the program and can be used to meet current production expenses.

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WHAT MUST A FARMER DO WITH THE ACREAGE THAT HE DIVERTS OUT OF CORN OR GRAIN SORGHUMS?

This land must be handled in one of these ways: (1) permanent type, or rotation cover of grasses or legumes; (2) temporary cover of grasses, legumes or small grains; (3) ponds or other water storage; (4) wildlife food or habitat plantings; (5) trees or shrubs; or (6) cropland may be left to take "volunteer natural cover or summer fallow" if the county committee determines that it is not practical to establish a cover. Weeds, insects and rodents must also be controlled as determined by the county committee.

A farmer must certify that the diverted acreage put in conserving uses is in addition to his acreage of cropland devoted to conservation uses in 1959-60.

In establishing a seeding, it is permissible to use a nurse crop, such as oats, and clip it. Or it can just be left to fall over without clipping. The diverted land can be seeded to wheat in the fall, but it must not be pastured at any time in 1961. Whether the land can be fall-plowed will depend on the decision of the county committee.

WILL THE FARMER WHO CHOOSES TO STAY OUT OF THE PROGRAM BE ELIGIBLE FOR PRICE SUPPORTS?

The farmer who does not sign up with the feed grain program will not be eligible for support prices on any feed grain crop. But he will still be eligible to get the \$2.30 support price for soybeans.

CAN DIVERTED ACREAGE BE PASTURED OR CUT FOR HAY?

No, the land that is designated on each farm as diverted acreage can not be pastured after April 15, nor can any hay crop be cut from it. The Secretary of Agriculture can, however, in case of drouth



or other emergency make exceptions to this rule. Of course other land on the farm in cover crops, and not designated as diverted acreage, can be pastured or cut for hay.

IS GOVERNMENT AID AVAILABLE TO HELP ESTABLISH COVER CROPS?

The farmer who signs up with the program may apply for help under the Agricultural Conservation Program, but payments are not assured at this time.

HOW WILL THE PROGRAM BE FINANCED?

Direct financing of payments and administrative expense will be handled through the Commodity Credit Corporation, with the \$14.5 billion borrowing authority appropriated by Congress.

MIGHT A FARMER BUILD A LARGER ACREAGE BASE BY STAYING OUT OF THE 1961 PROGRAM?

Farmers who do not join the program in 1961 should not expect to build up their acreage bases for future programs. The Department will recommend to Congress that any future legislation involving base acreages give no advantage to producers who do not cooperate in the 1961 program.

IF A FARMER HAS AN INTEREST IN MORE THAN ONE FARM, CAN HE SIGN UP WITH THE PROGRAM ON ONE FARM AND NOT ON THE OTHER?

Yes, a farmer can participate in the program on one farm and leave the other one out. But on the farm (or farms) not in the program, the corn and grain sorghum acreage must not be above the 1959-60 base acreage. Also, he will not be able to get price support on the feed grains produced on any farm not in the program.

HOW WILL PAYMENTS BE DIVIDED BETWEEN LANDLORD AND TENANT?

The law provides that payments be divided on a "fair and equitable basis" in line with existing contracts. Further details on this question are expected later.

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FOR IMMEDIATE RELEASE

Illinois Bankers Schedule  
Agricultural Conference, April 12-13

URBANA--Illinois bankers interested in farming will hold their annual agricultural conference at the University of Illinois at Urbana April 12 and 13.

Harold G. Halcrow, head of the U. of I. department of agricultural economics, will speak on "Economics of the Farm Problem" during the opening session Wednesday morning.

The next session will feature a panel of agricultural engineers, a banker and a farm management specialist discussing, "Farm Equipment Investments to Increase Net Profits."

Karl E. Gardner, associate dean of the College of Agriculture, will address the Wednesday noon luncheon session on "Opportunities Unlimited in Agriculture."

J. B. Claar, associate director of the Illinois Agricultural Extension Service, will speak during the Wednesday afternoon session. Other topics to be discussed are income distribution by size of farm, 1961 agricultural outlook, and principles affecting farming efficiency and profits.

At the Wednesday evening banquet, conference visitors R. P. Heringer, Heringer Holly Ranch, Clarksburg, California, will talk about "A Bag of Groceries." The University of Illinois Women's Glee Club will provide the music.

The conference is sponsored by the University of Illinois College of Agriculture, the Division of University Extension and the Illinois Bankers Association.



## Press Conference For Secretary Freeman

Note to Editors: Secretary of Agriculture Orville Freeman has agreed to hold a press conference immediately preceding his address at the first general session of the 1961 Farm and Home Festival. This conference is scheduled for 2:00 p.m. in Room 422 Mumford Hall on the campus. We would be happy to have you attend and participate with Secretary Freeman in a discussion of current farm problems and programs.

Hadley Read  
Extension Editor

FOR IMMEDIATE RELEASE

(This story was released Thursday to press associations.)

## Secretary Of Agriculture Freeman To Speak At Illinois Farm And Home Festival

URBANA--Secretary of Agriculture Orville L. Freeman will speak at the University of Illinois next Thursday, April 6, at 3 p.m. in the University auditorium.

Freeman's appearance will highlight the first day of the annual Farm and Home Festival Thursday, Friday and Saturday on the College of Agriculture campus.

At 42, Freeman is the youngest man ever to serve as Secretary of Agriculture, and the first from Minnesota. A lawyer by profession, he has served three terms as governor of Minnesota and has had wide experience in working with legislative bodies and administering a state government.

He served in the U. S. Marines from 1941 to 1945, advancing from the rank of second lieutenant to major. A Japanese sniper bullet shattered his jaw and severely injured him. Although his speech was impaired, he underwent special therapy and is now nationally recognized as an outstandingly fluent and forceful speaker.

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Very truly yours,  
[Signature]

THE UNIVERSITY OF CHICAGO

UNIVERSITY OF CHICAGO  
1100 SOUTH EAST ASIAN BLVD.

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Besides his political and governmental activities, he has been active in many civic, professional and church activities.

With the passage of the Feed Grain Law, Secretary Freeman's address is expected to attract wide interest among farmers and all others interested in agriculture.

The Secretary's address will be broadcast over University of Illinois radio station WILL, 580 kilocycles, at 3 p.m. Thursday.

The 1961 Farm and Home Festival features the theme, "Foundations for the Future," and includes exhibits, displays, special exhibit presentations and a speaking program featuring many University staff members on timely topics.

Governor Otto Kerner will speak on Friday, April 7, at 3 p.m. Saturday, April 8, is Student Guest and Hospitality Day. High school students are invited for special programs to learn about college and career opportunities. More details of the program are available from farm and home advisers, high school principals and agriculture and home economics teachers.

Festival exhibits are open from 9 a.m. to 5 p.m and 6:30 to 9 p.m. on Thursday; and from 9 a.m. to 5 p.m. on Friday and Saturday.

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CONFIDENTIAL  
SECURITY INFORMATION

Carefree Fido Needs Master's Guidance

URBANA--Fido's free! He bounds down the stairs, through the gate and across the street. Barking excitedly, he runs to and fro, jumping...twisting...irresistibly attacking sticks and stones.

A giant-sized steak bone couldn't make Fido happier, for spring is here and his master lets him romp outside more often. But because half the fun is chasing cars or passersby and tracking over neighbors' lawns, Fido's master must be extracautious.

"More small animals are involved in accidents during spring than at any other time," Dr. A. G. Schiller, University of Illinois veterinarian said. "After being cooped up all winter, they just can't handle their new freedom."

Dr. Schiller suggested several precautions that dog owners should take:

1. Keep an eye on your dog. Unless he is trained to heel, keep him on a leash when walking him in congested areas. The leash prevents him from darting into traffic, where he may cause an accident or get killed. It also prevents him from upsetting neighbors by running over their lawns. Let him romp in less congested areas.

2. Have a veterinarian vaccinate the dog for rabies. Most dog bites occur in spring and summer, when children and dogs spend more time outdoors. State law requires owners to have their dogs vaccinated once a year. By doing this now, you can avoid the rush in May.

It's also a good idea to have your dog vaccinated for distemper. Because he is outdoors more, he has a greater chance of coming into contact with dogs carrying this disease.

3. Rid your dog of fleas and ticks. Spray or dust him, and then bathe him with a mild soap. Wash or burn his bedding. This action combined with frequent dustings will keep him healthier and more comfortable.

Chicago Police Department

Chicago Police Department, Chicago, Illinois  
 1. On or about the date of the above captioned case, the undersigned was advised by the Chicago Police Department that the Chicago Police Department is conducting an investigation into the activities of the Chicago Police Department in the Chicago Police Department.  
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FOR IMMEDIATE RELEASE

## Freeman and Kerner Talks To Be Broadcast

URBANA--Talks by Secretary of Agriculture Orville Freeman and Governor Otto Kerner before the University of Illinois Farm and Home Festival will be broadcast over the University radio Station WILL, 580 kilocycles.

The Secretary will speak at 3 p.m. Thursday, April 6. He has chosen as his subject, "A New Look in Agriculture."

If weather conditions are favorable, Freeman will speak from the north steps of the Stock Pavilion. The quadrangle area in front of the pavilion will accommodate the many thousands expected for his address. In case of rain, he will speak in the University auditorium.

Freeman's appearance will highlight the first day of the University's annual Farm and Home Festival, Thursday, Friday and Saturday. Exhibits, displays, exhibit presentations, a Town and Country Art Show and a speaking program of University staff members and outstanding public officials are featured in this year's exposition.

Governor Kerner will speak in the University auditorium at 3 p.m. Friday, April 7. His address will mark his first appearance at an agricultural event since his election. University President David Dodds Henry will introduce Kerner.

Chicago, Illinois

February 10, 1954

Dear Mr. [Name]:

I have your letter of [Date] regarding [Subject].

The [Department] will [Action] [Request].

I am sorry that [Reason] [Situation].

Very truly yours,

[Signature]

[Name]

[Address]

Develop Guides For Making 1961 Crop Decisions

URBANA--Two University of Illinois farm management specialists this week estimated a "break-even" corn price needed by farmers considering the 1961 feed grain program.

In making these estimates, Royce A. Hinton and George B. Whitman have set up several situations that are typical of farms in different parts of the state.

One example covers a grain farm with state average yields of around 70 bushels an acre and a 100-acre corn base. To participate in the program, a farmer would plant at least 20 fewer acres of corn. He would receive payment based on half his normal yield, the county support rate and the number of acres taken out of corn. The figures assume that the farmer would make a net saving of about \$15 an acre on land taken out of corn and put into conservation use.

The farm management specialists figured that a farmer with average yields who did not participate in the program would have to get at least \$1.12 a bushel for all the corn he sold on the open market to obtain the same return as a farmer taking part in the program and getting the \$1.20 support rate on a reduced corn acreage along with his special payment.

Should 1961 corn yields per acre fall below the normal production for 1959-60, the break-even price for non-cooperators would be higher. For example, if yields dropped to 60 bushels, the break-even price would be \$1.15 instead of \$1.12. If yields averaged 10 bushels above normal, the break-even price would drop to \$1.09 a bushel.



Some additional advantage for taking part in the program shows up when a farmer can reduce both his corn and oat acreage and raise more soybeans.

Hinton and Whitman cite as an example a farmer who averaged 100 acres of corn, 20 acres of oats, 30 acres of hay and pasture and 50 acres of soybeans during the past two years. He could cooperate with the program by cutting his corn to 80 acres. He would seed 20 of the acres that would normally go to oats to a cover crop, and that would be his diverted acres. He would harvest no crop from this land in 1961. He would keep 30 acres in hay and pasture as he had for the past two years. He would plant 70 acres of soybeans instead of the 50 that he had averaged for 1959-60.

Let's figure that this farmer gets the national average support rates of \$1.20 for corn and \$2.30 for soybeans and has a normal yield of 70 bushels of corn an acre and 28 bushels of soybeans. He would of course reduce his income and save some cash costs by not harvesting oats. In this situation, Hinton and Whitman figure that a non-participating farmer would have to average \$1.22 a bushel for corn on the open market to equal his expected returns from cooperating in the program.

A budget form that will help farmers figure their cropping plans and expected returns both in and outside the program has been developed by U. of I. farm management specialists. Copies should be available from each county farm adviser by late this week.

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Farm and Home Festival Coverage

Market Key To Size Of Farm Production Plant

URBANA--The amount of land, capital and manpower employed on American farms will finally depend upon the market for the products produced, a University of Illinois agricultural economist pointed out today.

Speaking before the opening session of the Farm and Home Festival, T. A. Hieronymus stated that American farmers do have a rapidly expanding market for food products. Demand for food rose about 3 percent a year during the 1950's.

To maintain an expanding market, producers must supply the desired products, provide proper quality, merchandise them in a form in which consumers want them, and price them attractively, Hieronymus stated.

This requires a flexible and changing marketing system, he emphasized. He cited the experiences of broiler, soybean and beef producers who have expanded their markets in recent years. These are examples of products produced to fill an expanding need made available in the form in which people wanted them, and priced so that consumers are willing to spend their money for them, he concluded.

PHYSICS 350

1. The first part of the problem is to find the energy levels of a particle in a potential well. The potential is given by  $V(x) = V_0 \exp(-\alpha|x|)$ . The energy levels are found by solving the Schrödinger equation  $\nabla^2 \psi + (E - V(x))\psi = 0$ .

2. The second part of the problem is to find the wave function of the ground state. The ground state wave function is given by  $\psi_0(x) = A \exp(-\alpha|x|)$ . The normalization constant  $A$  is found by requiring  $\int_{-\infty}^{\infty} |\psi_0(x)|^2 dx = 1$ .

3. The third part of the problem is to find the expectation value of the energy. The expectation value of the energy is given by  $\langle E \rangle = \int_{-\infty}^{\infty} \psi_0^*(x) \hat{H} \psi_0(x) dx$ .

4. The fourth part of the problem is to find the expectation value of the position. The expectation value of the position is given by  $\langle x \rangle = \int_{-\infty}^{\infty} \psi_0^*(x) x \psi_0(x) dx$ .

Farm and Home Festival Coverage

Dr. Brandly Describes Fight Against Zoonoses

URBANA--The dreaded Asian flu epidemic that hit man, swine, horses and other animals several years ago was a grave example of the zoonoses problem, Dr. C. A. Brandly told a Farm and Home Festival audience today. Dr. Brandly, dean of the University of Illinois College of Veterinary Medicine, defined zoonoses as diseases transmitted from animal to man or man to animal.

Dr. Brandly explained that the virus causing Asian flu first attacked in 1889 and then possibly retreated to wild animals on the mainland of China. "The virus apparently slumbered for almost 70 years before causing the 1956 outbreak," Dr. Brandly said. "This epidemic showed us that nature helps infectious agents survive and perpetuate themselves just as it helps us."

Man is advancing in his fight against the more than 100 zoonoses, according to Dr. Brandly. Thirty years ago bovine tuberculosis, transmitted from cow to man through milk, caused many cases of tuberculosis, especially in children. The threat of bovine tuberculosis no longer exists, not because of pasteurization of milk but because of the organized work of veterinarians to virtually wipe out the disease.

The problem is now reversed, according to Dr. Brandly, and the cow is no longer safe around humans. "If a herd of cattle that was free of tuberculosis now reacts to the tuberculin test, suspicion turns to man as the possible culprit."

ARTICLE IN FULL

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION  
PUBLISHED WEEKLY  
ARTICLE IN FULL

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PUBLISHED WEEKLY  
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PUBLISHED WEEKLY  
ARTICLE IN FULL

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION  
PUBLISHED WEEKLY  
ARTICLE IN FULL

Although man is superior intellectually, ethically and morally to other mammals, he has no special immunity against infection from pets and other animals. Hence, we must seek ways to eliminate disease.

"Miracle" drugs are not the answer, for their effects are limited, Dr. Brandly said. "Nature protects all forms of life. Flies and insects become immune to insecticides. And if bacteria are in continuous contact, they not only disregard drugs and antibiotics, but eventually require them in order to survive."

Dr. Brandly said that drugs are successful for a time and to a degree. Tsetse flies, carriers of sleeping sickness, were eliminated from large areas in Africa by dusting and spraying breeding areas from airplanes.

One of veterinary medicine's greatest concerns about pesticides is that they cannot determine eventual effects on man and animals.

Another concern is that diseases limited to one species may affect others, including man. Also, some diseases that scientists thought were under control have made new advances.

"Living with and using animals for our benefit is a luxury we do not want to do without," Dr. Brandly said. "Without dogs and other experimental animals, there would be no success with the 'blue baby' operation, nor would we have the Stader splint, the Gorman artificial hip joint or other remarkable discoveries. There are benefits in the other direction, too. Through collaboration of the dentist and veterinarian, crowns are being put on cows' teeth that often double the reproductive life of the cow on coarse range pastures."

These facts indicate the urgency for collaboration in our fight against diseases common to man and others in the animal kingdom, according to Dr. Brandly. The Illinois Zoonoses Research Center, established last year, will provide this collaboration by permitting veterinarians, physicians, sanitary engineers, soil scientists, meteorologists and others to work together.

Although the subject is not explicitly stated, the text discusses the importance of maintaining accurate records and the role of various departments in ensuring the integrity of the data. It mentions the need for regular audits and the involvement of different levels of management in the process. The text also touches upon the challenges faced in data collection and the methods used to overcome them, such as the use of standardized forms and training for staff. The overall tone is professional and informative, providing a detailed overview of the data management process.

Farm and Home Festival Coverage

Face Flies Expected To Be  
Serious Again This Summer

URBANA--Face flies, the newest insect pest to plague Illinois livestock, are expected to be serious again this year, warns Steve Moore.

Moore, an entomologist with the University of Illinois and Illinois Natural History Survey, spoke today before a Farm and Home Festival audience. He said that parasites and diseases of the face fly, as well as weather conditions, would determine how serious this fly actually becomes.

Warm weather favors the fly's "population explosion."

If the face fly follows the pattern of the past two summers, farmers will first notice him in May or June. But he will probably not become a serious pest until July. By "serious" Moore means more than 15 or 20 flies per head.

Last year some herds of cattle averaged 150 flies per head, and some individual animals had over 300 flies. This fly also hovers around the faces of sheep and horses. It feeds on secretions around the eyes and muzzles.

The flies also gather on the withers, neck, brisket, legs and sides of the animal, feeding on saliva deposits or on blood from other wounds or insect bites.

Last year face fly baits became available to farmers for the first time. Consisting mostly of corn sirup and two-tenths percent DDVP, the baits are painted on the foreheads of animals. They can reduce fly populations up to 75 percent.

Moore expects that these baits, as well as repellents, will be improved upon this year.

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10/10

Farm and Home Festival Coverage

Fight Insects Through Biological Control

URBANA--Preventing insects from completing their life cycle through biological control is often the best way to rid communities of insect pests, Dr. D. H. Ferris, University of Illinois pathologist, told a Farm and Home Festival audience today.

Estimates of insect species range from 640,000 to 900,000, making insects man's chief competitor for control of the earth.

Dr. Ferris stressed the need for control by pointing out that tests indicated that one acre of Pennsylvania rural land contained approximately 425 million insects.

Biological control, Dr. Ferris said, consists of knowing the insect's life cycle and habits and then preventing the completion of that cycle. Using this type of control, people can eliminate flies and mosquitoes by removing manure and straw or draining a swamp and thus destroying their breeding places.

"Without adequate biological control," Dr. Ferris said, "the use of chemicals will be ineffective. For example, flies will outbreed all the DDT that can be sprayed over a filthy barn floor or lot."

Chemical control is never fully effective, according to Dr. Ferris. Insecticides seldom succeed in wiping out insects completely, but sometimes succeed in poisoning wildlife, livestock and man himself if used improperly. "Some insects survive our most devastating poisons and come back to plague us in numbers larger than ever," Dr. Ferris pointed out. "And this time they're resistant to the insecticide."

Farms and communities can reduce or eliminate many insect pests by planning a cooperative program with their conservation department, natural history survey, public health service or universities.



Farm and Home Festival Coverage

Changes In Illinois Soil Testing Announced

URBANA--Instruments are taking over the job of testing Illinois soils for acidity and phosphorus, reports James C. Lavery, University soil chemist.

Lavery discussed recent changes in Illinois soil testing with visitors attending the second day of the 1961 Farm and Home Festival held on the U. of I. campus.

Here are the changes made in Illinois soil testing:

1. A pH meter instead of a visual color test will measure the degree of acidity.

2. A photelometer replaces the visual method of determining phosphorus requirements. Also, a second test for phosphorus is now possible.

The old test, P<sub>2</sub>, continues as a guide for applying rock phosphate on acid soils, Lavery said. In addition, a second test, P<sub>1</sub>, will be the guide for applying soluble phosphates on all Illinois soils.

About 100 of the 125 Class A laboratories in Illinois are equipped to use the new methods, according to Lavery. The new methods will reduce errors inherent in the old visual tests.

Lavery says that no change has been made in the potassium test.

The first extension soil testing laboratory was started in 1944 in Whiteside county. Illinois now has 80 extension and 45 commercial soil testing laboratories.

THE EARLY HISTORY OF THE UNITED STATES

The first part of the history of the United States is the history of the discovery and settlement of the continent. It is a story of exploration and discovery, of the search for a new world and the discovery of a new continent.

The second part of the history of the United States is the history of the early years of the nation. It is a story of the struggle for independence and the establishment of a new government.

The third part of the history of the United States is the history of the growth and expansion of the nation. It is a story of the westward movement and the discovery of new lands.

The fourth part of the history of the United States is the history of the civil war and the reconstruction of the nation. It is a story of the struggle for freedom and the preservation of the Union.

The fifth part of the history of the United States is the history of the industrial revolution and the rise of the modern nation. It is a story of the growth of industry and the development of a new society.

The sixth part of the history of the United States is the history of the world wars and the emergence of the United States as a world power. It is a story of the struggle for global peace and the establishment of a new world order.

The seventh part of the history of the United States is the history of the civil rights movement and the struggle for equality. It is a story of the fight for justice and the realization of the American dream.

The eighth part of the history of the United States is the history of the present and the future of the nation. It is a story of the challenges and opportunities of the twenty-first century.

Farm and Home Festival Coverage

Plant Diseases Are Big Eaters

URBANA--Each year plant diseases in the United States destroy enough crops to equal all the crops produced annually in Ohio and Indiana. This amounts to \$75 for each family, according to A. L. Hooker, University of Illinois plant pathologist.

At the Friday morning session of the University's 1961 Farm and Home Festival, Hooker introduced a movie that told the story of plant diseases and the research men who study them.

Hooker also pointed out at the session on "Potatoes, Plant Diseases and Presidents" that plant diseases have played an important role in history. For example, President John Kennedy's great-grandfather, Patrick J. Kennedy, came to the United States during Ireland's great potato famine of 1848.

Potato late blight caused the famine.

Today we are able to control the fungus causing the disease, Phytophthora infestans, with fungicides and resistant varieties, Hooker said. However, in the 1840's men did not understand diseases or how to cope with them.

PHYSICS 350

PHYSICS 350: QUANTUM MECHANICS

Farm and Home Festival Coverage

Pork Production Efficiency Depends on Ration

URBANA--The head of the University of Illinois swine division, D. E. Becker, said today that raising hogs as cheaply as possible depends mainly on whether the farmer feeds a balanced ration.

A balanced ration should contain the correct combination of nutrients to satisfy all of the pig's nutrient requirements, Becker told a Farm and Home Festival audience.

During growth, for example, the pig needs the proper combination of amino acids to make maximum use of protein. Amino acids are the "building blocks" of protein. Likewise, the proper level of energy must accompany the protein or amino acids. This is sometimes referred to as the protein-energy balance.

Energy comes from carbohydrates and in most rations corn supplies most of the carbohydrates.

Once a ration is balanced correctly, controlling how much energy a pig consumes is the next most practical method for improving feed efficiency. For example, limiting the energy intake of finishing hogs usually improves feed utilization and produces superior carcass characteristics, such as less fat and more lean.

Other factors also affect feed efficiency, said Becker. A few of them are the form of the diet, such as pellets or meal, timing in supplying nutrients and the ration's vitamin and mineral content.

PRODUCTION EFFICIENCY DEMANDS ON NUTRITION

URBAN-The Board of the University of Illinois during 1961-62

has been very busy in carrying out its various projects

and in planning for the future. The Board has

been particularly concerned with the

development of the program and the

improvement of the facilities.

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Note: This packet contains four stories reporting talks to be presented at Farm and Home Festival, April 6-8.

FOR IMMEDIATE RELEASE

## Government Feed Grain Handling Policy Reversed

URBANA--The 1961 Feed Grain Program marks a reversal of government grain pricing and management policies, a University of Illinois agricultural economist reports.

L. F. Stice points out that the Secretary of Agriculture can use government stocks in three ways to influence corn prices: (1) he can sell the amount of feed grains equal to the value of diversion payments; (2) he can change the policy of CCC grain sales for export and (3) he can sell off-quality grain in the domestic market.

For example, if corn producers cut production by 600 million bushels and the USDA issues \$360 million in certificates, the Secretary can sell \$360 million worth of government corn valued at the market price, assuming that all certificates are turned in by producers and exchanged for cash.

Stice points out that past regulations have prohibited the USDA from selling its stored grain in our domestic market at less than 105 percent of the loan rate plus carrying charges, unless the grain was for disaster relief. Grains in danger of going out of condition, or already out of condition, and export grains were sold at market prices. The 1961 feed grain program does not change these regulations

-more-

This report contains the results of the work done by the Commission during the period from 1960 to 1962.

THE COMMISSION'S WORK

1. THE COMMISSION'S WORK

The Commission has been set up to study the economic situation in the Community and to make recommendations to the Council of Ministers. It has held several meetings and has received many suggestions from Member States.

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except for the amount of grain that USDA can release through the acreage diversion program.

The aims of the USDA to use government stocks to depress market prices and encourage participation in the new program are even more important than changes in the law itself, Stice points out.

In the past the USDA has managed and disposed of grain stocks to minimize the influence on market prices.

For example, since 1957 the Commodity Credit Corporation has sold little of its corn for dollars in the export market. As a result, government corn sales for export dropped from 140 million bushels in 1957-58 to 35 million bushels in 1959-60. Government corn exports have been largely for relief, foreign currencies or barter materials, or to pay export subsidies in feed grains. But since this has been an administrative policy, it can be changed.

Another area where judgment can influence the amount of CCC corn sales is determining what corn is storable and what is not. By October 1961 the CCC will own almost two billion bushels of corn, some of which has been stored for several years.

Stice believes that, unless corn yields are very low, the USDA will be able to prevent the market corn price from rising to support levels during 1961. Prices in the spring and summer of 1962 are more uncertain. But government stocks will be large enough to supply the market needs if the USDA sells them, he concludes.

The first of the main points is that the government should be responsible for the overall economic policy. This means that the government should be able to control the money supply and interest rates.

The second point is that the government should be able to control the exchange rate. This is important because a stable exchange rate is essential for international trade.

The third point is that the government should be able to control the public sector. This means that the government should be able to manage its own finances and to provide public services.

The fourth point is that the government should be able to control the distribution of income. This is important because a fair distribution of income is essential for social justice.

The fifth point is that the government should be able to control the environment. This means that the government should be able to regulate the activities of businesses and individuals that may harm the environment.

The sixth point is that the government should be able to control the quality of life. This means that the government should be able to provide a high standard of living for its citizens.

The seventh point is that the government should be able to control the rate of inflation. This is important because a low rate of inflation is essential for economic stability.

The eighth point is that the government should be able to control the rate of unemployment. This is important because a low rate of unemployment is essential for social stability.

The ninth point is that the government should be able to control the rate of population growth. This is important because a low rate of population growth is essential for economic development.

The tenth point is that the government should be able to control the rate of technological change. This is important because a high rate of technological change is essential for economic growth.

The eleventh point is that the government should be able to control the rate of international trade. This is important because a high rate of international trade is essential for economic development.

The twelfth point is that the government should be able to control the rate of foreign investment. This is important because a high rate of foreign investment is essential for economic growth.

Management Key To Successful SPF Hog Production

URBANA--A. H. Jensen, a University of Illinois swine researcher, emphasized today that management is the key to successful production of SPF hogs, formerly called "disease-free" hogs.

Speaking before a Farm and Home Festival audience, Jensen discussed whether specific pathogen-free hogs are practical for Illinois farms. He believes they are, IF farmers practice these management methods:

1. Limit foot and vehicle traffic between swine herds.
2. Keep vehicles of all kinds out of pig pens and lots.
3. Keep SPF hogs away from non-SPF hogs.
4. Keep visitors away from the herd, or provide them with clean boots and outer clothing.

In other words, isolation is the best policy.

Although good feeding is also important, feeding alone will not guarantee success. The specific nutritional needs of SPF hogs have not been determined. But a feeding program that works well for regular swine herds should work well for SPF hogs.

Any hog producer whose pigs are continually troubled by virus pig pneumonia, atrophic rhinitis and other diseases should consider an SPF pig program. In many swine herds this program, when coupled with good management, has reduced these disease problems.



Farm and Home Festival Coverage

Child-Rearing Attitudes  
Reflect Cultural Differences

URBANA--German mothers appear to have more strict and controlling child-rearing attitudes than American mothers. This difference reflects cultural differences.

So said D. W. Rapp, University of Illinois child development and family relations specialist, at the Farm and Home Festival today (April 6).

Reporting on a recent research study, Rapp also said he found German child-rearing attitudes much more authoritarian than American attitudes. The German mothers agreed to a much greater extent than American mothers on such points as: (1) "Severe discipline is essential in the training of children; (2) children need some of the natural meanness taken out of them; (3) children should do nothing without the consent of their parents and (4) parents are entitled to the love of their children even though they don't earn it."

For his study, Rapp surveyed 124 mothers in Germany and an equal number in Florida. The mothers in the study were matched in social level, age and number of children. Thus the only big difference in the two groups was their culture.

German mothers also generally said, "Yes" about these attitudes: "A child should feel a deep sense of obligation always to act in accord with the wishes of his parents." And parents should always have complete control over the actions of their children." However, in



general, American mothers had widely divided opinions about these statements.

In spite of the many differences, the mothers in both countries did agree on several points. One outstanding common attitude was: "It is important for children to have some kind of religious upbringing." Also they agreed that "The most important consideration in planning the activities of the home should be the needs and interests of the children; children should not interrupt adult conversation; children should be punished for disobedience; and most children should have more discipline than they get."

Rapp said that cross-national research provides an important basis for understanding people in other countries. As distances between countries shrink, such understanding becomes even more essential.

Rapp also reminded the audience that the results of his study should not serve as the only basis for judging the value of these attitudes. The fact that German mothers tend to have more dominant and controlling attitudes is no reason to say that their children are being brought up in a bad atmosphere. "The goodness or badness of German or American child-rearing attitudes should always be considered in relation to the uniqueness of their cultures."



Link Discusses Problems With Insecticides

URBANA--Insecticide sprays that are toxic at one-tenth percent may be more dangerous than sprays that are toxic at one percent, Dr. R. P. Link told a Farm and Home Festival audience today.

He is a physiologist at the University of Illinois College of Veterinary Medicine.

"The more toxic spray may be used in such low concentration that it actually presents less danger," Dr. Link explained. "The less toxic compound may be more dangerous because it often has to be used in much higher concentration before it's effective."

The type of formulation that is used is not the only important consideration. How livestock come into contact with insecticides is also important.

Fortunately, feed that has been contaminated by insecticides and then is eaten by farm animals is seldom harmful. The quantity of insecticides per unit of feed is usually so small that animals can tolerate it.

In one experiment with cattle, hogs and chickens, the animals and birds were given rations containing different insecticides for 16 weeks. The quantity of insecticides mixed in the feed was much greater than would occur under any possible practical use.

"Neither the animals nor the birds suffered any ill effects," Dr. Link reported. "And the insecticides did not impair production or weight gains or cause changes in various vital organs."

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

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Add Link - 2

Insecticides must be effective and reasonably safe when used according to recommendations before the U. S. Department of Agriculture will approve them.

"Some misuse is generally anticipated and considered in both the recommended use and registration," Dr. Link said. "But it simply is not possible to anticipate all extremes of misuse. For this reason farmers must be extremely cautious in using insecticides."

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Extension Work In Illinois  
Works The Same In India

URBANA--Frank H. Shuman stressed today that successful demonstrations are the key to successful extension work in India just the same as they are in Illinois.

Shuman, a long-time University of Illinois farm adviser in Whiteside county, recently returned from India, where he served as a foreign consultant on extension service methods. He spoke today before a Farm and Home Festival audience on the University campus.

He told the audience that American agricultural representatives in India will never have much influence with the Indian people unless they gain their respect. And they will never gain their respect unless their agricultural demonstrations are successful.

Shuman explained that many Indian soils have been farmed for 3,000 years with no organic matter or fertilizer returned to the soil, a fact that Illinois farmers probably can't even begin to comprehend. Soil poverty is causing many of India's millions to starve, Shuman pointed out.

Each morning in India there are 12,000 more mouths to feed. A soil fertility buildup program is therefore essential if India is to feed her present and future generations. Shuman showed color slides depicting phenomenal responses of India's hungry crops to soil treatments.

Shuman believes that with proper motivation and demonstration there IS hope for India. He said that in both the United States and

THE HON. MEMBER FOR ...

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India people repeatedly asked him, "Why disturb India? If you educate people you simply make more problems. India's problems are so great that they can never be solved. And saving lives only makes more people to feed."

Shuman declared that he could never agree with this concept. If the masses are educated and motivated to do something about their problems, more people will be working to solve India's problem.

The former farm adviser also emphasized the importance of sending U. S. representatives overseas who firmly believe that "all men are created equal." If an American at home defends white supremacy, he will never help to eliminate the caste system, which is unsurpassed in its power to blight human personality.

"If our foreign aid program is to be successful overseas, we must practice at home what we preach abroad," Shuman said in conclusion.

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FOR IMMEDIATE RELEASE

Develop Budget Form For  
Deciding On Feed Grain Program

URBANA--University of Illinois farm management specialists have developed a special budget form to help farmers work out their decisions on the 1961 Feed Grain Program.

This form enables farmers to estimate their income if they participate and if they do not participate. It shows estimated fertilizer and other crop costs based on detailed research studies conducted by the department of agricultural economics.

When a farmer has worked through the form, he can see the difference between his income from participation and from nonparticipation.

These forms along with instructions for working them out are available in each county farm adviser's office.

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Early-Weaned Lambs Make Satisfactory Gains

URBANA--University of Illinois tests show that early-weaned lambs can make satisfactory gains and have fewer internal parasites with no increase in death losses.

The tests used lambs weaned at six and nine weeks of age. Weaning at such an early age did not increase death losses. In fact, it may have reduced them. Of the 76 lambs used, only two died after weaning.

Before weaning, lambs were creep-fed the same ration they were self-fed after weaning. Fed in meal form, it contained ground shelled corn, high-quality ground mixed hay, soybean meal, vitamins and minerals.

Lambs made satisfactory gains immediately after weaning as well as during the entire study. Gains for all lambs, regardless of age at weaning, averaged almost 1/2 pound daily per head. Previous tests have shown that lambs have fewer internal parasites when they are not allowed to graze with ewes. This test confirmed the earlier tests.

Early weaning also has other advantages: (1) eliminates the need for high-quality legume-grass pasture, (2) allows maximum gains, (3) results in more uniform lambs, (4) makes lambs easier to handle and (5) lets ewes run on poorer pasture, since they are not milking.

On the other hand, earlyweaning can also increase labor and equipment costs and out-of-pocket costs for grain and supplements. And ewes can develop udder trouble. In these tests, however, only one ewe out of 250 had such trouble. Workers reduced the ewe rations in quantity and quality shortly before and after weaning the lambs.



Early weaning does not use as much roughage as other systems of ewe and lamb management. This may be either an advantage or a disadvantage, depending on how much roughage is available.

These tests were conducted at the University's Dixon Springs Experiment Station. The Dixon Springs staff is keenly interested in lamb studies that will help sheepmen market lambs earlier while prices and lamb quality are high. And marketing early avoids problems resulting from hot weather, insects and declining pasture quality.

Early warning does not use as much resources as other systems  
and also arrangements. There are a number of advantages in a

simple, dependent on the way the system is organized.

These facts were considered at the University's first session

on the subject. The first session was held in 1961 in

the United States with the participation of several other

countries. The first session was held in 1961 in

the United States. The first session was held in 1961 in

1961  
1961

Futures Markets May Be Useful For Advance Sales

URBANA--A University of Illinois agricultural economist this week called farmers' attention to the futures markets as a mean of selling their grain crops ahead of harvest, or even ahead of planting.

T. A. Hieronymus cited the April 6 market quotation in which the effective price for corn delivered at country elevators in mid-February 1962 was \$1.11. The price for soybeans delivered next February was \$2.33.

These prices may or may not be good sales, Hieronymus points out. Prices could be higher or lower next February. But farmers who are worried about prices a year from now can assure themselves of about \$1.10 for corn and \$2.30 for soybeans by selling futures.

Here is how the operation works: The recent quotation on March 1962 corn futures was \$1.21. At this time of year, cash prices to farmers will be about 10 cents below this figure. So a farmer who wants to sell March futures would net about \$1.11 when delivering to his local elevator. If the cash price next winter declined to \$1.00, the farmer would sell his corn for this price. Then he would buy back his March futures contract, which would be about \$1.10. He would get \$1.00 from the cash sale of his corn and make 11 cents a bushel profit on his futures trade, so his total return would be about \$1.11.

If the cash price was \$1.20, March futures would be about \$1.30. He would have to buy back his futures contract at a loss of

Annual Report of the Board of Directors

GENERAL INFORMATION

The Board of Directors is pleased to report that the financial results for the year ending 31st March 1948 are satisfactory.

The Board has considered the accounts and has approved them for presentation to the shareholders.

The Board has also considered the proposals for the payment of a dividend of 10% on the ordinary shares.

The Board has decided to pay a dividend of 10% on the ordinary shares of 10/- each, amounting to £100,000.

The Board has also considered the proposals for the payment of a dividend of 5% on the preference shares.

Yours faithfully,  
The Board of Directors

The Chairman of the Board of Directors

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9 cents a bushel. Subtracting this from the \$1.20 cash price he received, he would net about \$1.11.

The recent March soybean futures price was about \$2.47. The difference between futures and cash is about 14 cents a bushel. So a farmer could sell March 1962 futures now and be assured of about \$2.33 a bushel for the crop he delivers next winter.

Current futures prices reflect the combined judgment of all people in the market about what prices of grain will be a year from now, Hieronymus points out. That judgment now says that corn will be about \$1.11 and soybeans about \$2.30 to \$2.35. The market stands ready to buy at these prices now, he concludes.

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10-10-1951

Cass County 4-H'er Wins  
X-Tra Yield Corn Contest

URBANA--Jim Deppe, Ashland, Cass county 4-H member, has been named winner of the 1960 4-H X-Tra Yield Corn Contest. His winning yield was 191.04 bushels an acre.

Winners were announced and prizes awarded at the annual 4-H X-Tra Yield Corn Contest banquet during the 1961 University of Illinois Farm and Home Festival in Urbana.

District X-Tra Yield winners also announced were Howard Temple, Sheridan, 172.53 bushels; Tom Bidner, Mahomet, 175.9 bushels; Kelly Schmitt, Ingraham, 182.15 bushels; and Chuck Varner, Omaha, 166.42 bushels.

The yield contest was judged on the basis of corn grown on a five-acre supervised plot last summer. Each district winner was awarded a wrist watch and ribbon, with a trophy for Deppe.

The X-Tra Yield Contest is sponsored by the University of Illinois in cooperation with the Illinois Farm Supply Company.



COLLEGE OF AGRICULTURE and the  
DIVISION OF UNIVERSITY EXTENSION

FOR IMMEDIATE RELEASE

Report Reasons Why Some  
Farmers Make Financial Progress

URBANA--Important reasons why some tenant farmers made financial progress while some did not were reported this week by a University of Illinois farm management specialist.

Donald G. Smith drew these conclusions from a study of 30 operators who had made financial progress and 29 who had not during the period from 1955 to 1959.

The operators who made progress increased their farmland by 25 acres; the others had a reduction of four acres.

Operators showing progress increased their corn and soybeans by 31 acres, while those making no progress increased by only 17 acres. The operators making progress intensified their cropping program, but they had only 68 percent of their farm in these crops.

Those who made progress expanded livestock. The livestock inventory jumped \$9,400 compared with only \$1,400 on those farms where operators made no progress.

Although operators showing progress had less debt in 1955, each group had \$8,800 debt in 1959. So the group showing financial progress actually borrowed \$1,800 more than the other group.

The group showing financial progress boosted their net worth by \$9,900 during the five-year period. Those showing no progress saw their net worth drop by \$1,800.



Change in assets made the difference. The operators showing progress increased their assets from \$21,300 to \$35,600. The operators showing no progress raised their assets only \$600.

Debts amounted to only 21 percent of assets at the beginning and 25 percent at the end for those who made progress. Those with no progress began with a debt of 34 percent of total assets and increased it to 44 percent.

Operators showing progress were more efficient managers than those showing no progress. They produced higher yields per acre and had higher returns for each \$100 worth of feed fed to livestock.

By maintaining efficiency, by farming more land more intensively and by increasing volume of hogs and beef, the successful group achieved higher net income per hour of labor and also increased their capital assets.

The two groups in this study were about the same age, had families of the same size and the productivity of soil on the farms and years of farm experience were about equal.

Smith made this report before the Illinois Bankers Agricultural Conference at Urbana.

Class is held on the afternoon. The students are  
very interested in the work.

There is a general feeling of interest in the  
work.

The students are very interested in the  
work.

1911



FOR IMMEDIATE RELEASE

## Storage, Market Price Key In Feed Grain Program Decision

URBANA--Available storage, expected market price and type of farm operation are key factors farmers face in making their decisions about the 1961 feed grain program, a University of Illinois agricultural economist points out.

R. B. Schwart says that a farmer must have storage available to take advantage of the program.

If a grain farmer has storage and he estimates that the market corn price will be \$1.00 a bushel or less, then there are few situations in which he would not find it advantageous to comply, the economist believes.

The livestock farmer who has farm storage and who plans to participate and seal his corn must estimate the free market corn price needed for feeding plus costs of hauling and handling. In his situation, he may find little advantage in complying.

The farmer who must rent storage may pay as much as 15 cents a bushel for the season. In addition, he may have extra costs for loan fees, personal property taxes and shrink that will reduce the net support price from \$1.20 to about \$1.00.

Farmers who participate will find it to their advantage to get top yields per acre. The operator whose average yield has been below the base yield established by the ASC committee will find it especially advantageous to apply enough fertilizer to insure at least the base yield, the economist believes. Those with yields above average, however, will still be ahead to maintain their present high yield levels.

THE UNIVERSITY OF



FOR IMMEDIATE RELEASE

## University of Illinois Offers New Agricultural Communications Program

URBANA--For the first time this fall, students at the University of Illinois will be able to enroll in a new program specifically designed to prepare them for a wide variety of careers in agricultural writing, broadcasting, advertising and public relations.

The details of the new "major in agricultural communications" were outlined today by Dean Louis B. Howard of the College of Agriculture and Dean Theodore Peterson of the College of Journalism and Communications. The program is offered jointly by the two colleges.

Both Deans Howard and Peterson pointed out that the joint program was developed over a period of several years to meet a steadily growing demand from business, industry and educational institutions for college graduates with specialized education in both agriculture and journalism and communications.

"The need is especially great," Dean Howard said, "in the growing and increasingly important and complex fields of agriculture business.

"Firms and industries which produce goods and services for farm families as well as those which buy, process and distribute agricultural products have a growing need for young men and women who know agriculture on one hand and who also know how to write effectively, how to prepare and present radio and television programs, and how to design and carry out effective advertising and promotion programs."



Under the new plan, students will follow a generally prescribed sequence of courses in agriculture and may select one of three optional sequences in journalism and communications. The options include news-editorial, advertising and radio-television, and by use of electives, the student may take some courses in all three options. The bachelor of science degree will be offered by the College of Agriculture.

Dean Peterson emphasized that the program has received enthusiastic endorsement from business and industry leaders who were asked to review it.

The director of public relations for a large feed manufacturing company stated, "There is a distinct need for men with majors in agricultural communications. We need specialists in this field such as this program will provide."

Similar endorsements were received from representatives of farm papers and magazines, advertising agencies, and agricultural cooperatives. One wrote, "I would say that your new program appears to be an excellent academic preparation for what is surely becoming an increasingly significant and exciting field."

The Extension Editorial Office of the College of Agriculture has been assigned administrative responsibility for the new major which will be outlined for the first time in the University's 1961-62 Undergraduate Study Bulletin available to students next month.

Hadley Read, head of the Extension Editorial Office, says high school students who would like to receive more information regarding the new program may write to his office, 330 Mumford Hall, Urbana.

Under the new plan, students will follow a generally prescribed sequence of courses in agriculture and may select one of three optional sequences in chemistry and mathematics. The general education news-editorial, advertising and radio-television, and by the school, the student may take some courses in all these options. The school of business courses will be offered in the College of Agriculture. It has been emphasized that the program has received the highest endorsement from business and industry leaders who were asked to review it.

The director of public relations for a large food manufacturer by company stated, "There is a distinct need for men with agricultural communications. He was specialized in this field and the program will provide." Similar endorsements were received from representatives of the State and National Advertising Agencies, and agricultural organizations. One whole, "I would say that your new program appears to be an excellent modern preparation for men in public relations in the agricultural field."

The Extension Director of the College of Agriculture has been granted administrative responsibility for the new program which will be outlined for the first time in the University's 1951-52 Prospectus Study Bulletin available to students and faculty. Philip Reed, head of the Extension Department, stated, "The high school students who would like to receive their education in agriculture and business are being prepared by the new program at the University of Wisconsin."

1951  
1952

Illinois Reports Lamb Death Loss Study

URBANA--Grade lambs suffered fewer death losses than lambs of three pure breeds during a study at the University of Illinois Dixon Springs Experiment Station.

Some 22 percent of the grade lambs died compared to 23 percent of the Suffolks, 30 percent of the Hampshires, and 32 percent of the Targhees.

Dr. M. E. Mansfield, Station veterinarian, studied lamb death losses during the 1958, '59 and '60 lambing seasons. Records were kept from time of birth until lambs went on spring pasture. The study involved 2,864 lambs.

Of this total, 24 percent died from various causes. The greatest number of losses were lambs dead at birth. Other losses resulted from (in order of frequency): (1) weak lambs that died shortly after birth, (2) miscellaneous causes, (3) starvation and overlaying by the ewe, (4) pneumonia, (5) premature lambs, (6) lambs delivered dead, (7) undetermined causes, (8) injuries other than those caused by dam, (9) lambs not claimed by dam, and (10) deformed or abnormal lambs.

The records show that more Hampshire lambs were premature, dead at birth or lived only a short time, than any other lambs. This might have happened because the Hampshire lambs were large in comparison to the ewe's size.

The large number of losses in all breeds, however, points out the need for more research into the causes behind such losses, says Mansfield.

THE EFFECT OF LIGHT ON THE GROWTH OF PLANTS

It is well known that plants grow better in light than in darkness. This experiment was designed to determine the effect of light on the growth of plants.

The experiment was conducted in a greenhouse. The plants were divided into two groups. One group was kept in the light and the other group was kept in the dark. The plants were watered and fertilized in the same manner.

After a period of two weeks, the plants in the light were found to be much larger and greener than the plants in the dark. This shows that light is necessary for the growth of plants.

The results of this experiment are as follows: (1) Plants grow better in light than in darkness. (2) The plants in the light were much larger and greener than the plants in the dark.

(3) The plants in the light were found to be much more vigorous than the plants in the dark. (4) The plants in the light were found to be much more resistant to disease and insects than the plants in the dark.

(5) The plants in the light were found to be much more productive than the plants in the dark. (6) The plants in the light were found to be much more attractive than the plants in the dark.

(7) The plants in the light were found to be much more useful than the plants in the dark. (8) The plants in the light were found to be much more valuable than the plants in the dark.

A startling number of Targhee lambs, 24 percent, died from starvation. Their dams, however, were two-year-old ewes lambing for the first time. In comparison, only two percent of the Hampshires, six percent of the Suffolks and eight percent of the grade lambs died from lack of sufficient milk.

Pneumonia losses averaged about eight percent among Targhee, Hampshire, and grade lambs, but jumped to 11 percent among the Suffolk ewes.

An Illinois study reported last fall showed that Hampshire lambs seemed to be more susceptible to pneumonia than Shropshire, Southdown and Rambouillet lambs.

This latter study summarized the University's flock records from 1921 to 1957 and covered 4,231 lambs of the four breeds mentioned above. The records showed that Rambouillets showed an average death loss of 15 percent; Shropshires, 17 percent; Southdowns, 21 percent; and Hampshires, 23 percent.

Mansfield points out 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.

A striking feature of the present study is the fact that the majority of the patients who were treated with lithium carbonate showed a marked improvement in their mood, and in some cases, a complete remission of their symptoms. This is in contrast to the results of the study by [Name], in which the majority of the patients who were treated with lithium carbonate showed no improvement in their mood, and in some cases, a complete remission of their symptoms.

It is interesting to note that the majority of the patients who were treated with lithium carbonate showed a marked improvement in their mood, and in some cases, a complete remission of their symptoms. This is in contrast to the results of the study by [Name], in which the majority of the patients who were treated with lithium carbonate showed no improvement in their mood, and in some cases, a complete remission of their symptoms.

The present study is the first to report the results of a controlled trial of lithium carbonate in the treatment of [Name]. The results of the study are encouraging, and suggest that lithium carbonate may be a useful agent in the treatment of [Name].

This study was conducted in a hospital setting, and the results may not be generalizable to an out-patient setting. In addition, the study was limited to a small number of patients, and the results may be subject to bias. Further studies are needed to confirm the results of this study.

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FOR IMMEDIATE RELEASE

## University of Illinois Offers New Agricultural Communications Program

URBANA--For the first time this fall, students at the University of Illinois will be able to enroll in a new program specifically designed to prepare them for a wide variety of careers in agricultural writing, broadcasting, advertising and public relations.

The details of the new "major in agricultural communications" were outlined today by Dean Louis B. Howard of the College of Agriculture and Dean Theodore Peterson of the College of Journalism and Communications. The program is offered jointly by the two colleges.

Both Deans Howard and Peterson pointed out that the joint program was developed over a period of several years to meet a steadily growing demand from business, industry and educational institutions for college graduates with specialized education in both agriculture and journalism and communications.

"The need is especially great," Dean Howard said, "in the growing and increasingly important and complex fields of agriculture business.

"Firms and industries which produce goods and services for farm families as well as those which buy, process and distribute agricultural products have a growing need for young men and women who know agriculture on one hand and who also know how to write effectively, how to prepare and present radio and television programs, and how to design and carry out effective advertising and promotion programs."



Under the new plan, students will follow a generally prescribed sequence of courses in agriculture and may select one of three optional sequences in journalism and communications. The options include news-editorial, advertising and radio-television, and by use of electives, the student may take some courses in all three options. The bachelor of science degree will be offered by the College of Agriculture.

Dean Peterson emphasized that the program has received enthusiastic endorsement from business and industry leaders who were asked to review it.

The director of public relations for a large feed manufacturing company stated, "There is a distinct need for men with majors in agricultural communications. We need specialists in this field such as this program will provide."

Similar endorsements were received from representatives of farm papers and magazines, advertising agencies, and agricultural cooperatives. One wrote, "I would say that your new program appears to be an excellent academic preparation for what is surely becoming an increasingly significant and exciting field."

The Extension Editorial Office of the College of Agriculture has been assigned administrative responsibility for the new major which will be outlined for the first time in the University's 1961-62 Undergraduate Study Bulletin available to students next month.

Hadley Read, head of the Extension Editorial Office, says high school students who would like to receive more information regarding the new program may write to his office, 330 Mumford Hall, Urbana.





FOR IMMEDIATE RELEASE

## Feed Grain Program To Provide Some Help; Substantial Readjustment Required

URBANA--The emergency feed grain program recently passed by Congress will provide some additional income for Corn Belt farmers. The amount of help will depend on the degree of participation and the handling of feed grain stocks, the head of the University of Illinois department of agricultural economics believes.

Harold G. Halcrow points out that the open market corn price is difficult to predict and will depend heavily on the policies and administration of the program by the U. S. Department of Agriculture.

If the sign-up for the program is small and Commodity Credit Corporation sales continue high, the open market price can decline from present levels. On the other hand, if the sign-up is large with a billion bushels of corn or more becoming eligible for loan, these sales from government stocks will have to be heavy to prevent market prices from rising to near loan rates, he explains.

Here is how Halcrow appraises the current farm problem:

1. The outlook for agriculture is for continuation of the cost-price pattern of recent years. There is little in the current picture--barring major war--to suggest that farmers will see a return to the prices of the early 1950's.

2. 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.

(more)



3. Price trends in this country reflect the broad shift in world markets as the effects of World War II and the Korean War recede into the background.

4. Substantial readjustment in agriculture is required to provide for efficient family farm operation and adequate incomes for farm people. Output per man-hour is expected to increase by more than 35 percent in the next ten years and capital used by the average farmer will more than double.

5. Increases in size are not always necessary, however. We should not aim for bigness alone and exclude most efficient use of the labor and capital that is available.

6. To facilitate needed farm adjustments, farm people must have employment opportunities, an adequate credit system, educational opportunities for young people, expansion of industry and economic development in rural areas. These are areas where government policymakers and others interested in agriculture should devote more attention, Halcrow concludes.

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Farmers Tell Rewards, Problems Of Raising SPF Pigs

URBANA--Ninety percent of the first generation specific pathogen-free (SPF) pigs raised on Illinois farms survived, according to a survey of SPF swine producers. The questionnaire was submitted by Dr. J. R. Pickard, University of Illinois extension veterinarian.

The survey involved only primary stock which are removed from the sow by hysterectomy and raised in isolation on a colostrum-free diet. Because they lack antibodies needed to fight off low-grade bacterial infections, they must be raised in completely sanitary surroundings. After four weeks in the laboratory they are moved to clean farms.

Specific pathogen-free pigs are free of specific diseases, such as atrophic rhinitis, virus pig pneumonia and specific intestinal diseases.

Dr. Pickard's questionnaire indicated only 10 percent of the 550 SPF gilts sent to farms have died. "In no case did a pig die from atrophic rhinitis or virus pig pneumonia, two diseases responsible for the development of the SPF program," Dr. Pickard emphasized.

Sanitizing farms before bringing in SPF stock is one of the most difficult requirements to meet, according to SPF producers.

"All swine must be removed from the farm for six weeks before introducing SPF stock so the area can be cleaned and disinfected," Dr. Pickard explained. "During this time the farmer has no income from the sale of market hogs."

THE UNITED STATES

The United States is a country of many people and many ideas. It is a country where freedom of speech and religion are protected by the Constitution. The government is made up of three branches: the executive, the legislative, and the judicial. The President is the head of the executive branch, the Congress is the legislative branch, and the Supreme Court is the highest court in the judicial branch. The United States is a democracy, which means that the people have the right to elect their representatives to the government.

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Once SPF stock is on the farm, strict sanitation practices must be enforced. This, SPF producers say, is another difficult requirement. But as one man wrote, "Once the SPF program is established it doesn't require any practices that shouldn't be a matter of routine on any swine farm."

Many believe sanitation requirements include raising pigs on concrete, wood or slatted floors. According to questionnaire answers, most SPF swine producers raise their pigs on dirt. This is an acceptable practice providing the soil is free of ascarids or roundworm eggs and harmful bacteria.

One man who raised two groups of SPF pigs on dirt where no hogs had been for 15 years and two groups on concrete, reported the confinement pigs did better. But they were more prone to stiffness or arthritis, he wrote.

"No one was disappointed with the problem of pig health," Dr. Pickard said. Bacterial and dietary scours, stiffness and gut edema caused the most trouble, but treated pigs quickly recovered. As one man wrote, "I never saw a pig recover so fast!"

Another point in the survey concerned placing SPF boars in non-SPF herds, a practice questioned by many farmers and researchers. While this has been done with apparently satisfactory results, the merits of this practice are still questionable, according to Dr. Pickard.

He advised farmers using SPF boars in open herds to "observe the boars carefully for any signs of illness and to seek veterinary help immediately if illness occurs."

Dr. Pickard concluded from the survey that problems encountered with first generation SPF stock are primarily laboratory problems. "Performance in the field as revealed by the survey has been encouraging," he said. "The SPF program has been firmly launched."



Four Illinois 4-H'ers To Attend National Conference

URBANA--Four Illinois 4-H Club members have been chosen to represent the state's more than 72,000 4-H'ers at the 31st National 4-H Conference this week in Washington, D. C., April 22-28.

The conference delegates are Martha Bliss, 19, Cooksville; Dawn Mathre, 20, DeKalb; Clifford Scherer, 19, Claremont; and Jerry Reusch, 19, Scales Mound.

These young people will join 4-H'ers from throughout the United States at the conference which is designed to develop citizenship and rural leadership and to improve program planning in 4-H.

The group will tour national shrines and government buildings in Washington. They expect to meet President Kennedy, Secretary of Agriculture Freeman, and other representatives of the federal government.

Three of the delegates are enrolled at the University of Illinois. Martha Bliss and Dawn Mathre are enrolled in home economics. Clifford Scherer is a sophomore in the College of Agriculture. Jerry Reusch is farming at home.

Delores Parrott and R. O. Lyon of the state 4-H staff at the University of Illinois will accompany the group at the conference.

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U. of I. Scientists Discover  
How Antibiotics Kill Fungi

CHICAGO--University of Illinois plant disease researchers have discovered how the antibiotic Ascocin kills fungi.

Speaking before the American Society of Bacteriologists, William Dowler explained that many antibiotics are known to prevent or control diseases. But exactly how they do this often remains a mystery.

Several examples of fungi are molds, rusts, mildews, smuts and mushrooms. Sometimes they cause harmful plant and animal diseases.

David Gottlieb, S. Ramachandran and William Dowler studied how fungi use sugar for energy. When they added the antibiotic Ascocin to a sugar solution, they found that the fungi could not utilize the sugar.

Then they broke up the fungal cells, without spoiling the enzymes of the cells so that they were no longer alive. This allowed them to better study how the antibiotic stopped the fungi from using the sugar.

They found that the antibiotic seemed to combine with the enzyme site in the cells of the fungi. Normally these enzymes are necessary for utilizing sugar in the presence of oxygen. By combining with the enzyme site, the antibiotic stops the enzyme from working.

Since this pathway for utilizing sugar to produce energy is blocked, fungi cannot use the sugar. Therefore the fungi starve to death.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

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It is published weekly, except during the summer months.

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Small Particle Of Virus Can Cause  
Infection, Scientist Reports

CHICAGO--A University of Illinois scientist has made a new contribution to the knowledge about the elusive plant viruses, the cause of many diseases.

Previously some scientists had believed that a virus lost its infecting ability when it was diluted sufficiently in certain solutions. It was believed that a certain dose of virus was needed to cause an infection.

Speaking before the Society of American Bacteriologists, H. H. Thornberry reported that a certain virus did not lose its ability to cause infections when highly diluted. It just became too sparse for detection with usual tests on five or six plants.

In his research Thornberry used the tobacco mosaic virus. He prepared a highly diluted solution of the virus and then applied it to 600 bean plants. Some plants became infected even though the application had been made with a highly diluted solution that would normally have been considered non-infectious.

From this test Thornberry suggests that a single virus particle is capable of causing an infection on a susceptible host.

Since the tobacco mosaic virus remains infectious though highly dispersed, Thornberry reasons that other viruses causing plant diseases may also remain infectious even though diluted beyond the point of detection by usual tests.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION  
PUBLISHED WEEKLY  
CHICAGO, ILL., U.S.A.

CHICAGO—A University of Illinois research team has reported  
evidence for the presence of a certain kind of virus, the same  
kind of virus.

Essentially, the researchers had discovered that a virus, the  
same as that which was first reported in certain patients  
was found in a certain group of cases and was found to be the  
same.

Specimens from the laboratory of the University of Illinois  
showed that a certain virus did not lose its ability to  
reproduce when it was dried. It just became dormant for  
a short time and then it revived.

In the laboratory, the virus was dried and then reactivated  
and a highly diluted solution of the virus was applied to  
the surface of the cells. The virus was found to be active  
and to be able to multiply when it was dried.

The virus was dried and then reactivated. The virus was  
found to be able to multiply when it was dried. The virus  
was found to be able to multiply when it was dried.

Why did the virus survive? The researchers believe that  
the virus may have survived because of the way it was dried.  
The virus was dried by being placed in a vacuum and then  
dried by being placed in a vacuum.



FOR IMMEDIATE RELEASE

Soil Moisture Supply Below Normal;  
More Than Average Rainfall Needed

URBANA--The soil moisture supply in many parts of the state is only 70 to 80 percent of capacity this spring, a University of Illinois soil scientist reports.

L. J. McKenzie says that some further build up in moisture supply may occur during April. But subsoil moisture deficits cannot be fully satisfied unless April and early May rainfall is 50 percent or more above normal.

After May 15, water use by plants and evaporation rises so much that a recharge of moisture below 18 inches seldom occurs, McKenzie explains.

A buildup of moisture to the full capacity of the soil since the last growing season is very necessary, McKenzie emphasizes. During June, July and August water use by plants and evaporation is far above the amount of rainfall. Plants must be able to draw from the moisture reserve stores in the soil.

During early March, soil scientists from the Soil Conservation Service and the Agricultural Research Service made moisture tests on 19 different soils over the state. Only four of these soils had been recharged to 90 percent or more of their water holding capacity. On five soils, the stored moisture measured 70 percent of capacity or less.

-more-



Add Soil Moisture Supply - 2

The results of this survey suggest that better than average rainfall will be needed for good crop yields this year. This condition also existed in 1956. Excellent rainfall through the growing season however, helped produce good yields that year.

University of Illinois agronomists suggest that farmers avoid overworking their fields to keep the soils as porous as possible. Cultivating after a rain breaks up surface crusts and also increases moisture absorption. Moderate corn plant populations, such as 12,000 an acre on Cisne soils and 16,000 on Muscatine soils, may produce better yields than unusually high populations if summer rainfall is only normal or less.



U. Of I. Studying Vitamin A-  
Deficiency From Different Angle

URBANA--University of Illinois beef cattle scientists are studying the puzzling vitamin A-deficiency problem from a different angle this spring.

They are conducting basic research to determine what connection the deficiency may have to feeds high in nitrates and nitrites.

A. L. Neumann, head of the beef cattle division, explains that vitamin A-deficiencies are occurring in feeder cattle even though their rations provide adequate amounts of carotene.

Carotene is the forerunner of vitamin A found in feeds and forages. It must be converted to vitamin A in the animal body before it can serve its function. Neumann feels strongly that nitrites may be slowing up its rate of conversion and causing the vitamin A deficiencies. But just how is not well understood.

To describe this relationship more clearly, Neumann explains that thick planting rates and heavy nitrogen fertilization of corn increases the amount of nitrate in the corn plant. When cattle eat corn silage high in nitrates, their bodies absorb the nitrate. Then the nitrates change to nitrites within the body.

These nitrites have the ability to destroy carotene in the blood stream. Therefore it's possible that cattle receiving adequate supplies of carotene can develop vitamin A-deficiency symptoms if they are also receiving too much nitrate in their feed.



To learn more about this angle, Neumann and his co-worker, G. F. Smith, are currently feeding steers corn silage made last fall from four different fields:

Field 1: Heavy nitrogen fertilization--thick planting rate.

Field 2: Normal nitrogen--thick planting rate.

Field 3: Heavy nitrogen--normal planting rate.

Field 4: Normal nitrogen--normal planting rate.

Neumann explains that thick planting rates increased the amount of nitrates in the silage about as much as heavy fertilization did.

Results of these tests will be presented at Cattle Feeders' Day next spring.

To insure that the University of Chicago Library is fully informed of the current status of the book, the following information is requested:

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UI Tests Show Fiberglass, Straw, Sawdust  
Are Best Tile Filter Materials

URBANA--Fiberglass with plastic, straw and sawdust gave the best protection against soil movement into farm drainage tile in recent University of Illinois tests with seven common tile filter materials.

U. of I. agricultural engineer Ben Jones says the research also showed that (1) filter materials are invaluable aids against siltation in sandy or uniform silt soils, and (2) that it's not necessary to completely surround the drain with filter material.

Researchers conducting the tests found that covering only the top and sides of the drain gave as much protection against siltation as covering the entire drain.

Filter materials tested included: (1) corn cobs, (2) fiberglass over the top three-fourths of the drain, (3) fiberglass over the top three-fourths and a plastic sheet under the bottom one-fourth, (4) graded gravel, (5) sawdust, (6) straw and (7) topsoil.

The fiberglass-plastic combination, straw and sawdust, in that order, provided the best protection against soil movement into the drain. There was no significant difference between any two of these top three materials.

Graded gravel, fiberglass over the top three-fourths of the drain and topsoil ranked fourth, fifth and sixth respectively. Corn cobs ranked last and provided only slightly better protection than no filter material at all.



Cobs used in the tests were taken directly from the sheller and ranged from about one to four inches long. Researchers feel this length made the cobs far too coarse and may have accounted for their poor protection against soil movement.

Jones says topsoil gave significantly poorer protection than any material except corn cobs and the three-quarter-wrap fiberglass. Even so, the topsoil gave protection hundreds of times superior to that of no filter material at all.

In explaining the success of covering only the top and sides of the tile with filter material, Jones pointed out that soil entered first at the bottom of the drain, but originated almost entirely from above the tile.

By covering the top and sides of the drain, researchers were able to stop this soil movement. None of the filter materials restricted water flow to the drain tube.



Wheat Disease Strikes On Illinois Farms

URBANA--Serious outbreaks of Mosaic disease in wheat have struck wide areas of central and south central Illinois, a University of Illinois plant pathologist reported this week. The disease has been found in many counties never before having an outbreak of the disease. It is believed to be the most serious in more than 15 years.

M. P. Britton says the disease is caused by a virus present in the soil at all times. But the long, cool spring and high moisture conditions in March and April are responsible for the heavy damage reported this year.

The most noticeable symptoms are yellow, light purple or light green areas within a field, usually in the low spots. The wheat in the diseased area is stunted and although it may go on to produce some wheat, yields are less than from the normal plants.

How much yields will be cut is hard to say at this time, Britton points out. Farmers who have the disease in their fields will want to check it closely after the weather warms up to see if the crop is worth saving.

No control has been found for the disease once it strikes a crop of wheat. Growing resistant varieties is the only way to keep it from a farm.

The most resistant varieties are the soft winter types, however. Knox, Saline, Seneca, LaPorte and Vermillion are highly resistant to both mottle and rosette mosaic. Concho is the most resistant hard wheat and Westar is also considered moderately resistant.





FOR IMMEDIATE RELEASE

## Food Chain Stores Have Phenomenal Meat Buying Power

URBANA--A University of Illinois livestock specialist reports that the power of food chain stores in buying meat dramatically reflects consumer preferences.

As an example, G. R. Carlisle cites one nation-wide food chain that buys a phenomenal 50 million pounds of meat every week. Because of the consumer's preference for lean meat, this chain buys cattle grading either top good or low choice. And it prefers carcasses that weigh less than 700 pounds.

In hogs, this chain prefers animals grading U. S. No. 1 and weighing around 200 to 220 pounds.

Carlisle says these facts are ample proof that livestock producers will profit by raising animals that meet chain-store specifications.

The livestock specialist made these observations while attending a meat-packing company tour in the East. The group toured food chain stores, packing companies and several outstanding farms. Visits to broiler farms and processing plants in Delaware were one of the trip's highlights.

One processing plant turns out an almost unbelievable 5,500 birds an hour at an average of 4 cents per pound of dressed bird.

The keen competition between meat animals and broilers amazed Carlisle. He reports that the Del Marva area produces enough broilers in one year to equal the meat from one million steers.

The cost per pound of dressed broiler, ready for selling to retailers, averages 24 cents. Meat animals simply cannot compete with broilers at this price. Therefore livestock producers must produce a quality meat product for which consumers will pay a higher price than they pay for broilers.

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(Note to Editors: This is the first in a series of three stories about termites, their characteristics, identification, damage, control and selection of an exterminator.)

FOR IMMEDIATE RELEASE

## Mud Tubes Indicate Presence of Termites

URBANA--Termites are a common problem in many areas of the United States, including southern Illinois, but not too many people know much about them.

H. B. Petty, University of Illinois and Illinois Natural History Survey entomologist, answers some of the most common questions asked about these wood-chewing insects.

### How is termite damage to wood different from other damage?

Termites eat the soft part of wood, leaving the annual ring intact. The remaining shell is in layers and in a splinter-like condition. Termites also seal their runways and feeding areas with mud. Carpenter ants, on the other hand, gouge large, smooth areas out of wood, irrespective of grain. And their galleries are free from mud. Powder-post beetles make tiny tunnels in the wood, producing a fine, powdery sawdust. Several fungi also cause wood to rot, but the wood appears charred or crumbly with no apparent tunnels.

### How are termite infestations found? Swarms of flying ter-

mites are visible in the spring. And mud tubes built over concrete are signs of termite activity. These tubes are usually found on inside basement walls and over outside foundations. Weakened lumber may also indicate presence of termites. With an icepick or screwdriver, tap lumber to test it for weakness.

THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY  
58 CHEMISTRY BUILDING  
CHICAGO, ILLINOIS 60637

TO: [Name]

RESEARCH REPORT

1. TITLE: [Title]

2. AUTHOR: [Author]

3. SUMMARY: [Summary]

4. INTRODUCTION: [Introduction]

5. EXPERIMENTAL: [Experimental]

6. RESULTS: [Results]

7. CONCLUSIONS: [Conclusions]

How soon will structural damage occur? Termites may feed in wooden buildings for years before they do any serious structural damage. In fact, damage doesn't occur until the colony is 8 to 10 years old, unless the ground contained a large population before the building was constructed.

What are termites? They are colonial insects that feed on wood or wood products, such as paper. Protozoa in their digestive tracts convert wood cellulose into usable food.

How are termites distinguished from flying ants? A flying termite is always black. A flying ant may be black, yellow, tan or almost red. The rear wings of an ant are noticeably shorter than the forewings; the two pairs of wings of a termite are the same size. An ant has a narrow waist just behind the wing-bearing section of the body; the termite does not. Antennae of termites are straight, whereas those of ants are elbowed.

Where are termite colonies located? Because termite colonies need a constant supply of moisture, most of them are located in the soil.

How do they enter a building? Wood in contact with soil provides an unexposed path for termites into buildings. Basement windows, porches, door sills, wood supports through concrete slabs and siding are just a few other ways. Cracks in concrete foundations are also hidden entrance-ways. When no wood touches the soil and no entry-ways are available, termites will build mud tubes over the foundation and up into the building.

Why do they build tubes? The humidity throughout the entire colony must remain fairly constant, since termites die rapidly under dry conditions. Therefore, they build these mud tubes to maintain correct humidity. In addition, they also seal their feeding area with mud.



(Note to Editors: This is the second in a series of three stories about termites, their characteristics, identification, damage, control and selection of an exterminator.)

FOR IMMEDIATE RELEASE

Provide Termite Control  
Measures Before Construction

URBANA--It's far easier to take termite control measures while a building is under construction than it is to exterminate termites from the finished building.

If a "word to the wise" is sufficient, contractors and do-it-yourself builders will heed this advice from H. B. Petty, University of Illinois and Illinois Natural History Survey entomologist.

Here are some termite control suggestions from Petty for buildings under construction:

1. Remove stumps and wood debris from the building site before construction begins. Apply one gallon of 1/2 percent dieldrin or 2 percent chlordane to each square yard of surface before concrete slab is poured, As the soil is replaced around the foundation or footing, mix the chemical with the soil at the rate of one gallon for every 3 or 4 linear feet with shallow foundations or for every 1 or 2 linear feet with deep foundations. Put insecticides in each space of concrete block foundations.

2. Do not bury scraps of lumber or other wood debris in the backfill.

3. Avoid all contact between soil and woodwork of the building. If lumber does contact the soil, use chemically treated lumber.

-more-



4. Provide ventilation openings in the foundation. This will dry the soil in unexcavated areas.

5. Install a termite shield between the foundation and the superstructure to help detect an infestation. The shields will not keep termites out of a building, but forces them to build their tunnels in the open where they are visible. However, if there are breaks in the shield, termites will find them.

6. If possible, provide enough clearance beneath all parts of the building to allow room for inspection.

If all these precautions are taken, chances are the building will never harbor termites.

This is good insurance, as exterminating termites from already constructed homes or other buildings is sometimes difficult. However, do not be alarmed if you find termites in your house. Study the situation carefully to see how serious the problem is. If you think you can do the exterminating work yourself, ask your farm adviser for a copy of NHE-57, "Facts About Termites." Or write to Petty for a copy. His address is 280 Natural Resources Building, Urbana, Illinois.

If your termite problem seems extremely complicated, contact a dependable exterminator.

4. Specific details concerning the transition

All day long we discussed the

1. (a) The first step in the transition will be

to establish a working committee to coordinate

the various aspects of the transition. This committee

will be responsible for the overall management

of the transition process.

2. (b) The second step is to identify the

key areas that require attention.

3. (c) The third step is to develop a

transition plan.

4. (d) The fourth step is to implement

the plan and monitor progress.

5. (e) The fifth step is to evaluate

the results and make adjustments.

6. (f) The sixth step is to

communicate the progress of the

transition to all stakeholders.

7. (g) The seventh step is to

conclude the transition.

(Note to Editors: This is the third in a series of three stories about termites, their characteristics, identification, damage, control and selection of an exterminator.)

FOR IMMEDIATE RELEASE

Entomologist Tells How To  
Select Exterminating Company

URBANA--Perhaps you are one of the many home owners who has discovered termites in his home at some time and didn't know what to do. Or perhaps you'll have this problem in the future.

If you do, do not become alarmed, advises H. B. Petty, entomologist with the University of Illinois and Illinois Natural History Survey. It takes years for termites to cause any serious structural damage, so take your time and study the situation carefully to see how serious it is.

If you cannot do the needed work, select a dependable exterminating company. This is sometimes difficult for, as with any other business, quality of workmanship varies between exterminating companies. Some would rather make a fast dollar than do a good job, but most companies give excellent service and are a benefit to their community.

To help you select a dependable exterminating company, Petty has these suggestions:

1. Do not accept as bona fide badges or pocket credentials from itinerant exterminators who solicit door-to-door business.
2. Check with your better business bureau for companies they suggest. Or, if there are no exterminators in your community, check with the better business bureau in the city where the company is located. Friends who have employed exterminators may also have suggestions.

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3. Get bids from two or more companies.

4. Ask the company representative any questions you may have about their methods.

5. Ask to be billed for the work. This gives you time to observe results of the extermination. If company representatives demand payment before they do the work or immediately afterwards, this may indicate they want their money so they can "scram."

6. If you sign any contract, read the fine print as well as the large print. Be sure the company can back up its work with retreatment if control is not satisfactory.

For more information about termites, ask your farm adviser for a copy of NHE-57, "Facts About Termites." Or write to Petty for a copy. His address is 280 Natural Resources Building, Urbana, Illinois.

1. The first part of the report is devoted to a description of the experimental method.

2. The second part of the report is devoted to a description of the results of the experiment.

3. The third part of the report is devoted to a discussion of the results.

4. The fourth part of the report is devoted to a conclusion.

5. The fifth part of the report is devoted to a list of references.

6. The sixth part of the report is devoted to a list of symbols.

7. The seventh part of the report is devoted to a list of abbreviations.

8. The eighth part of the report is devoted to a list of figures.

9. The ninth part of the report is devoted to a list of tables.

10. The tenth part of the report is devoted to a list of appendices.

11. The eleventh part of the report is devoted to a list of errata.

12. The twelfth part of the report is devoted to a list of acknowledgments.

13. The thirteenth part of the report is devoted to a list of addresses.

10 - 10 - 1950

"Lepto" Antibodies May Persist For 6 Months

URBANA--Leptospirosis antibodies transmitted to calves via the cow's first milk may persist for as long as six months, a University of Illinois veterinarian discovered during an eight-year study of leptospirosis in cattle.

According to Dr. L. E. Hanson, 50 percent of the three-month-old calves tested had leptospirosis antibodies in their blood. Some still had detectable antibodies at six months.

Dr. Hanson said he did not expect such persistence, because antibodies are absorbed from colostrum, the cow's first milk, for no more than 48 hours following the calf's birth.

When antibodies were no longer effective, Dr. Hanson began a vaccination program in order to evaluate leptospirosis vaccine. Half of the three- to five-month-old calves were vaccinated and the others left untreated. Vaccination, which was repeated at six-month intervals, gave good protection.

"Although only a few animals developed detectable antibodies after vaccination, definite protection was induced by vaccination," Dr. Hanson said. Also, no adverse effects were observed.

Dr. Hanson worked with Dr. M. E. Mansfield and Dr. A. B.

Hoerlein on the eight-year study at the Dixon Springs Experiment Station. They found that serum from all calves contained the same antibodies present in their dams' serum. Also, the amount of antibodies in the calf's serum corresponded quite closely to its mother's antibody level.

Dr. Hanson revealed the findings of this study during the 11th annual meeting of the Southwestern Conference on Diseases in Nature Transmissible to Man held in Bryan, Texas, last week.





FOR IMMEDIATE RELEASE

## Select Seven Illinois Youth For Foreign Exchange Program

URBANA--Seven Illinois farm youth have been selected to represent the United States in foreign countries under the 1961 International Farm Youth Exchange (IFYE) program.

The Illinois delegates and the countries they will visit are William Guy Beeler, McLean, Ceylon; John Martin, Louisville, Pakistan; Dale Black, Kankakee, Jordan; Margaret Allen, Delavan, Netherlands; Jean Rushton, Minooka, England-Wales; Judith Sanders, Greenville, Colombia; and Walter Griffith, Galesburg, Sweden.

Margaret Allen, Jean Rushton, and Walter Griffith left for their assigned countries on March 30. All other delegates will be in their exchange countries by late October.

The Illinois IFYE delegates were selected for outstanding leadership in 4-H and other farm youth activities. They join more than 100 U. S. delegates in 41 countries throughout the world.

Hugh Wetzel, Illinois IFYE chairman, points out that more than 1,200 U. S. young people have visited 50 countries in Africa, Asia, Europe, Latin America, the Pacific area and the Middle East since the IFYE program began in 1948. In exchange, 1,300 young people from 60 foreign countries have lived with more than 18,000 farm families here in the United States.

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Under the program each IFYE delegate stays with four to 12 farm families during his four- to six-month stay in the exchange country. To broaden the impact of the program, the delegates must share their experiences with youth groups, rural organizations, civic clubs and others when they return to their home countries.

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

The IFYE program in Illinois is supported by voluntary contributions and by funds from the Illinois 4-H Foundation and the National 4-H Foundation.

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Grain Dealers Complete Night Course

URBANA--Sixty-seven grain dealers and industry representatives "graduated" from the University of Illinois College of Agriculture Thursday night. The certificates they received did not confer any degrees. But these men had shown that they would go to school one night a week when the teacher presented a subject that interested them.

For the past 12 weeks, T. A. Hieronymus, U. of I. professor of agricultural marketing has presented a weekly seminar on grain futures trading. Despite their busy schedules, 83 grain elevator operators, merchants and processors have averaged more than 90 percent attendance over the 12-week session. Those who attended eight or more sessions were awarded certificates.

Interest in the course was so high that Hieronymus divided the group into two sections. Each section met once a week, on Tuesday or Thursday night, for three hours.

In these sessions the grain men learned how futures trading works, how a grain exchange operates, how cash prices compare with futures prices, how hedging is carried on and many practical phases of futures markets in the grain industry.

Hieronymus believes the high interest by the grain men in this night seminar is a clear demonstration of how the University serves many people outside the regular full-time students on the campus.





FOR IMMEDIATE RELEASE

## Yield Is Still Key Factor In 1962 Corn Prices

URBANA--Even with a new government program, old man weather still holds the answer to corn prices in the year ahead. This year's yields will have a much greater influence on 1962 prices than the acreage diverted from corn, a University of Illinois agricultural economist stated this week.

L. F. Stice lists three major factors that will set the corn price next year: yields on the planted acreage, the amount made eligible for support and the amount sold from government stocks.

Last year's record-size corn crop was produced on 82.1 million acres with a record-high average yield of 53 bushels. Before 1958, yields averaged below 50 bushels an acre.

The amount of corn eligible for loan depends on how many farmers sign up in the 1961 feed grain program. If 30 percent of all feed grain producers signed up, the production from about 24.6 million acres would be eligible for support. If yields averaged 52 bushels, Stice figures that about one billion bushels would qualify for the loan. This much corn in the loan would not leave enough "free" corn for market use, so prices would rise to near the loan price, he believes.

A signup of 50 percent of all corn acreage would make about 1.7 billion bushels eligible for loan and tighten free market supplies even more.

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THE UNIVERSITY OF CHICAGO

The University of Chicago is a non-profit, non-sectarian institution of higher learning. It is committed to the pursuit of knowledge and the advancement of the human condition. The University is organized into several divisions, including the Faculty of the Divinity School, the Faculty of the Law, the Faculty of the Business Administration, the Faculty of the Education, the Faculty of the Engineering, the Faculty of the Medicine, the Faculty of the Natural Sciences, the Faculty of the Physical Sciences, the Faculty of the Social Sciences, and the Faculty of the Theological Studies.

The University of Chicago is a member of the Association of American Universities. It is also a member of the Association of Christian Colleges and Universities, the Association of Independent Colleges and Universities, the Association of Private Business Schools, the Association of Theological Schools, and the Association of Universities and Colleges in Africa.

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Sales of government corn will also influence prices. When a farmer participating in the feed grain program exchanges his certificates for cash, he authorizes the CCC to sell corn from its stockpile. But the amount it can sell in this way is equal to only about half the cutback in production. Perhaps even more significant, the sales authorized by certificates are equal to only one-eighth to one-third of the corn made eligible for price support.

Besides the corn that can be sold through certificates, the government can also sell corn that is in danger of going out of condition. Much corn has been sold in the domestic market in the past through this means. In addition, the Commodity Credit Corporation can also sell corn for export, although it is not now doing so to any great extent.

How will government sales influence corn prices next year? Sale of noncertificate corn will probably have more influence than sales permitted under the 1961 feed grain law, Stice concludes.

State of Maryland, Department of the General Land Office, Baltimore, Maryland, 21201. The undersigned, being duly sworn, depose and say that the following is a true and correct copy of the original records of the State of Maryland, Department of the General Land Office, Baltimore, Maryland, 21201, as the same appear in the files of the Department of the General Land Office, Baltimore, Maryland, 21201, and that the same are true and correct copies of the original records of the State of Maryland, Department of the General Land Office, Baltimore, Maryland, 21201, as the same appear in the files of the Department of the General Land Office, Baltimore, Maryland, 21201.

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Notary Public for the State of Maryland.

Witness my hand and the seal of my office this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

My Commission Expires \_\_\_\_\_, 20\_\_\_\_.

10/10/20

Research Points Up Value Of Early-Cut Hay

URBANA--University of Illinois research dramatically illustrates the value of cutting hay in the bud or early-bloom stage.

U. of I. dairy scientists compared dry matter yields, feeding values and dairy cow consumption rates of bud-stage and full-bloom alfalfa-bromegrass hay. Here's what they found:

1. Although the full-bloom hay yielded more dry matter per acre, the bud-stage hay yielded 207 pounds more protein per acre.
2. The bud-stage hay contained 1,201 pounds less crude fiber per acre.
3. Feeding trials showed that cows preferred and ate more of the early-cut hay.

Of these three advantages for bud-stage hay, the higher consumption rate is probably most important, explains U. of I. dairy scientist John Byers.

Byers says dry matter consumption per 100 pounds of body weight was 2.13 pounds for second-cutting bud-stage hay and only 1.89 pounds for second-cutting full-bloom hay.

This indicates that a 1,500-pound cow would eat 3.6 more pounds of the bud-stage hay per day than of the full-bloom.

Carrying these figures further, a 100-cow herd on full-bloom hay for a six-month feeding period would require the equivalent of 20 tons of shelled corn to replace the nutrients lost in the consumption gap between the two types of hay.

Considering the nutritional value of the hay plus the consumption per cow, Byers says this research indicates that one acre of hay cut in the bud stage is equal to one acre of full-bloom hay plus 10 bushels of shelled corn.

The following is a list of the subjects covered in the course. The subjects are listed in the order in which they are presented in the course. The subjects are listed in the order in which they are presented in the course.

1. The first subject is the study of the properties of matter. This subject is presented in the first part of the course.

2. The second subject is the study of the properties of light. This subject is presented in the second part of the course.

3. The third subject is the study of the properties of sound. This subject is presented in the third part of the course.

4. The fourth subject is the study of the properties of heat. This subject is presented in the fourth part of the course.

5. The fifth subject is the study of the properties of electricity. This subject is presented in the fifth part of the course.

6. The sixth subject is the study of the properties of magnetism. This subject is presented in the sixth part of the course.

7. The seventh subject is the study of the properties of atomic physics. This subject is presented in the seventh part of the course.

8. The eighth subject is the study of the properties of nuclear physics. This subject is presented in the eighth part of the course.

9. The ninth subject is the study of the properties of particle physics. This subject is presented in the ninth part of the course.

10. The tenth subject is the study of the properties of cosmology. This subject is presented in the tenth part of the course.

Face Flies Already Spotted; Control  
Now Will Reduce Later Numbers

URBANA--The troublesome face fly has already been spotted in Illinois this spring, reports Steve Moore, entomologist with the University of Illinois and Illinois Natural History Survey.

The flies have been found in cow herds north of a line between Greene county and Edgar county. The number averages up to 35 per head, depending on the weather.

Flies seen so far are adults that have over-wintered in buildings and other locations. They are either laying eggs now or will soon start. Therefore immediate control measures can reduce the populations this summer.

For control, Moore advises painting the forehead of each animal with a face fly bait. Most baits contain syrup and 2/10 percent of the insecticide DDVP. The syrup attracts flies to the bait; the DDVP finishes the job. Bait left over from last year has probably lost its effectiveness.

Face flies, which resemble house flies, are easily identified because they cluster on the faces of cattle, horses and open-faced breeds of sheep, such as Corriedales. The flies feed on the eye secretions. Through annoying the animals, they cause reductions in weight gains and milk production, as well as general irritability.





FOR IMMEDIATE RELEASE

## Here's What To Do In Case Of Tornado

URBANA--University of Illinois safety specialist O. L. Hogsett says knowing what to do when you see a tornado may mean the difference between life and death. Here are a few suggestions:

Keep calm. It won't help to get excited. Tornadoes usually move in a northeasterly direction at about 25 to 40 miles per hour. If one is coming toward you, move at right angles to its path.

If there isn't time to escape, lie flat on the ground face down in the nearest depression, such as a ditch or ravine. If possible, get into a culvert.

If you are at home and you don't have a cyclone cellar, the southwest corner of the basement usually offers the greatest safety. If you don't have a basement, make arrangements now to take shelter in your neighbors basement.

If time permits, shut off electricity and heating appliances. And, open doors and windows on the north and east sides of the house. This will equalize air pressure and may save your house from destruction.

Hogsett points out that the purpose of a tornado warning system is to give you 10 minutes to take these precautions. They could be the most valuable minutes of your life.



Soil Temperatures May Be  
Too Low For Vegetable Seeds

URBANA--Joe Vandemark, University of Illinois vegetable crops specialist, warns that soil temperatures may not be high enough for germination of some vegetable seeds.

Cool temperatures and heavy rains have stopped the soil's temperature from rising to the minimum level needed for seed germination in many parts of Illinois. Planting seeds before the soil reaches this minimum temperature does not produce an earlier crop and may result in fewer plants.

Some seeds, such as lettuce and onions, can stand cold soil temperatures and still be alive when the soil warms up. But others, such as beans, sweet corn and vine crops, will rot if they remain in cold soil too long.

How should you take the soil's temperature? Simply take a regular thermometer and push it down about three inches in the garden site.

Here are the vegetables that germinate at fairly low soil temperatures--around 50 degrees F.: beets, cabbage, carrots, lettuce, onions, peas, radishes, spinach and turnips.

Vegetables that require about 60-degree soil temperatures include snap beans, cauliflower, cucumbers, parsley, sweet corn and tomatoes.

These vegetables require high soil temperatures, around 68 or 70 degrees: lima beans, eggplant, peppers and watermelon.

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to the University of Chicago

IRRAWADDI--The University of Chicago, University of Illinois vegetable crops

collected, which that all temperatures may not be high enough for

production of some vegetable seeds.

Cool temperatures and heavy rains have stopped the soil's

temperature level rising to the minimum level needed for seed germination.

Many parts of Irrawaddy, floating seeds before the soil reaches this

minimum temperature does not produce an earlier crop but may result in

very little.

Some seeds, such as lettuce and radish, are slow cold soil

temperatures and will be alive when the soil warms up. But others,

such as beans, sweet corn and other crops, will rot if they remain in

the soil too long.

How should you take the soil's temperature? Simply take a

soil thermometer and push it down about three inches in the garden

the

into the soil. The temperature that germinates is fairly low soil

temperatures--about 55 degrees F. for beans, radish, carrot, lettuce,

corn, peas, radish, spinach and lettuce.

Vegetables that require about 60-degree F. temperatures

include many beans, cauliflower, cucumber, lettuce, sweet corn and

peas.

These vegetables require high soil temperatures, around 65

to 70 degrees. Like beans, eggplant, tomato and watermelon.

AC:W  
1/1/51

Three Wheat Grading And  
Marketing Schools Scheduled

URBANA--Southwestern Illinois grain dealers can learn the latest wheat grading techniques and marketing developments at three schools announced this week.

Dates and places are May 24, Sparta; May 25, Jacksonville; and May 26, Hillsboro. Each school will run from 9 a.m. to 4 p.m. in the farm bureau building.

During the morning session, R. O. Weibel, University of Illinois agronomist, will report on wheat varieties and diseases. L. F. Stice, U. of I. extension marketing economist, will discuss price differences for hard and soft wheat. Martin Banish, state ASC official, will present 1961 wheat loan storage regulations. R. M. Schneider, superintendent of grain inspection for the Illinois Department of Agriculture, will tell about state laws governing grain inspection, warehousing and sale of treated wheat.

During the afternoon program, O. P. Wise, U. S. Department of Agriculture grain inspection supervisor at St. Louis, will review wheat grades and grading procedures. U. S. licensed grain inspectors will supervise wheat grading practice by school participants.

Each school is open to grain dealers or other interested persons without charge. These programs are sponsored by the University of Illinois Cooperative Extension Service and the Grain Inspection Departments of the Illinois and U. S. Departments of Agriculture.

FOR YOUR INFORMATION  
PLEASE REFER TO

During the coming season, a number of wheat varieties will be grown at the University of Michigan. These varieties are being grown for the purpose of determining their yield and quality under Michigan conditions. The varieties are being grown at the University of Michigan and at other locations in Michigan.

Wheat is one of the most important crops in Michigan. It is grown in large quantities in the western part of the State. The University of Michigan is interested in the production of wheat in Michigan and is conducting research on the subject. The results of this research will be published in the near future.

The University of Michigan is also interested in the production of other crops in Michigan. These crops include corn, soybeans, and oats. The University is conducting research on the production of these crops and is interested in the results of this research.

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FOR IMMEDIATE RELEASE

## U. of I. Agronomy Day Set

URBANA--University of Illinois agronomists will roll out the red carpet for visitors to Agronomy Day at the University's South Farm, Urbana, Wednesday, June 28.

Visitors will have an opportunity to get a first-hand story of research results as well as to see test demonstrations of the newest developments.

Tours of 18 research plots will start at 9:30 a.m. and continue throughout the morning, says Fred Slife, this year's Agronomy Day chairman.

Two agronomists will be on hand at each tour stop to explain the research work. Tours will last about 3 1/2 hours. The stops include:

The Insect Situation; Soybean Diseases; Research in Agronomy; Soil Moisture Studies; Wheat Varieties; Oat Varieties; Breeding Oats for Yellow Dwarf Resistance; Grow a Good Lawn; Fertilizer Studies on Soybeans; Studies on Soil Organic Matter; Weed Control; Establishing Legumes With Chemicals; Alfalfa Varieties; New Machines for Harvesting Forage Crops; Fertility Studies on Corn; Rotation Studies; Production Potential of Illinois Soils; and Mycorrhiza of Field Crops.

Lunch will be available at the Agronomy Farm or, if visitors wish, they may bring their own, Slife said. Last year about 1,200 persons attended Agronomy Day.



Bone Darkening In Poultry A "Sign Of The Times"

URBANA--Last time you chewed on a drumstick, you may have noticed that the meat near the bone and the bone itself was an abnormal shade of reddish brown.

No doubt your next thoughts went something like this:

"My gosh!" Didn't the wife fry it long enough?"

"Maybe the ol' bird had spoiled."

"I know!" A hormone that farmers stuff into their chickens probably caused it."

None of these reasons, of course, is correct. Bone darkening in poultry is simply a sign of the times, reports University of Illinois poultry specialist, S. F. Ridlen.

You see, we live in an age of speed. We travel faster, prepare meals faster and manufacture cars faster. Speed has also reached into the barnyard. Modern research has developed rations that help produce tender broilers and fryers in record time--about nine weeks. It previously took 14 weeks.

The bones of chickens only nine weeks old have not completely calcified or hardened. This condition liberates the hemoglobin in the blood when the young broilers and fryers are frozen and thawed. The hemoglobin leaks through the spongy bone wall, discoloring the bone and the meat surrounding the bone. Cooking changes the hemoglobin's red color to various shades of reddish brown.

Ridlen assures us that bone darkening does not affect the quality, aroma, flavor, texture or even the taste of meat--just its appearance.

So, until scientists devise a method to stop bone darkening, just shut your eyes next time you chew on a darkened drumstick.

THE UNIVERSITY OF CHICAGO

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Ask For Fusarium-Wilt-Immune Tomatoes

URBANA--Home gardeners should ask for tomato plants from varieties that are immune to Fusarium wilt if they want to be successful tomato growers.

M. B. Linn, University of Illinois plant pathologist, suggests two varieties that are available from some plant growers: K C 146 and Manalucie.

Many gardeners know Fusarium wilt disease as "yellows." The disease's first symptom is a yellowing or brown discoloration of the lower branches. As the disease develops, the entire plant wilts and dies.

The first signs of Fusarium wilt generally appear about the time of bloom or soon after the crown-cluster flowers set. But the infection may occur at any time, Linn said.

The disease is caused by a soil fungus that enters the roots and invades the plant's food and water channels. Scientists believe a toxic substance secreted by the fungus causes the plant to wilt and die.

This wilt is one of the most prevalent field and greenhouse tomato diseases in Illinois, according to Linn. In damp weather a pinkish-white growth may be seen in wounds or on leaf scars of plants killed or severely infected by the wilt organisms.

The disease is favored by hot weather. And Linn comments that the high summer temperatures common in Illinois cause infections to develop rapidly. Plants sometimes die within two to four weeks after the symptoms appear.

The immune varieties, K C 146 and Manalucie, are not affected by wilt at any temperature. Resistant or tolerant varieties are not apt to be affected when soil temperatures are below 70° F. The wilt-resistant or tolerant varieties are Rutgers, Garden State, Pritchard, Marglobe, Break o' Day and Queens.

Linn warns gardeners not to grow tomatoes on the same ground more than once in three years. Light infestations of wilt can be greatly increased by too-frequent tomato cropping.



Veterinarians Believe Radiated Food Will Be Safe

URBANA--University of Illinois veterinarians are working hand in hand with government officials to uncover a possible peacetime use for radiation--sterilizing food.

Drs. E. F. Reber and O. P. Malhotra, veterinary research workers, believe radiation will be a safe method of sterilizing food. They base their opinion on the results of intensive tests made on rats, dogs and cats.

"The animals had no ill effects from eating radiated beef," Dr Reber said. "And they received just as much nutrition and grew as well as animals fed plain beef."

For two years research workers in the College of Veterinary Medicine tested the wholesomeness or safety of radiated beef on a dozen beagle dogs. The testing process was a complicated one, because the University does not have facilities for handling powerful doses of radiation.

The food was sterilized under the direction of the Quartermaster Corps. The cans of beef were immersed in water and radiated with gamma rays of spent fuel elements from atomic power plants. After being sterilized, the beef was shipped to the University. "The dogs given radiated beef ate less than the dogs given plain beef," Dr. Reber reported, "but they gained just as much weight."

Dr. Reber and Dr. Malhotra worked with Drs. P. D. Beamer, H. W. Norton and J. P. Kreier on this project. The College of

Experimental Studies on the Effect of

of the University of Chicago researchers are being made  
with the intention of obtaining a possible reaction to  
radiation-sterilized food.

Dr. F. V. Weber and O. R. Anderson, University, Chicago,  
believe radiation will be a safe method of sterilizing food.  
They have their opinion on the results of laboratory tests made in 1951,  
and state:

"The animals fed on 111 showed few signs of radiation  
poisoning. They received just as much radiation as they  
do as animals fed plain food."

The two year research workers in the Office of Veterinary  
Medicine tested the wholesomeness or safety of radiation food in a series  
of tests. The feeding process was a controlled one, feeding the  
animals was not done haphazardly but handled in a carefully planned  
manner.

The food was sterilized under the direction of Dr. Weber.  
The cases of food were immersed in water and radiated with  
an eye of about half a centimeter from electric power plants. After being  
sterilized, the food was shipped to the University. The food was  
fed to the animals and it was found that the food given white rats, in which  
radiation had been given, was just as good as the plain food.

Dr. Weber and his laboratory workers with Dr. F. V. Weber,  
at Chicago and Dr. Anderson in this project. The Office of

Veterinary Medicine laboratory was one of four laboratories throughout the country commissioned by the government for this work.

This two-year experiment is just part of the long chain of experiments with radiated food. Other tests have shown that radiated food does not change the number of white blood cells and the hemoglobin content of blood. But radiated food does affect the blood-clotting mechanisms of rats, and it may enlarge the heart of mice and affect reproduction of dogs by reducing the number of offspring. These, along with other possibilities, are being tested to find out how radiated food will affect human beings.

If food sterilized with radiation does appear on the market, it will have several advantages. Organisms causing botulism, trichinosis and other poisons will be completely destroyed. Also, meats, fish, vegetables and fruits can be kept in light-weight transparent containers at room temperatures.

But radiated food will have one disadvantage: It will probably introduce new flavors and odors just as frozen and canned foods did.

Years of research will be required before consumers may see radiated food in the supermarkets along with frozen and canned goods. But when they do, they'll know that veterinarians and other scientists are absolutely certain it's safe.

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to be completed by the end of this year.

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FOR IMMEDIATE RELEASE

## 2,4-D Weed Killer Also Attacks Flowers and Tomatoes

URBANA--The most popular weed killer, 2,4-D, also effectively kills tomatoes, grapes, beans, flowers and certain ornamentals.

Do not use 2,4-D near these crops, warns Fred W. Slife, University of Illinois agronomist.

Before using chemicals, home gardeners and farmers should carefully read the directions on herbicide containers.

Unfortunately, many gardeners give their flowers as well as weeds a dose of weed killer, Slife said. And during midsummer months these gardens show dead ornamentals and flowers as well as dead broad-leaf weeds.

Slife recommends these guides for using 2,4-D safely:

1. Do not apply any form of 2,4-D on a windy day.
2. Use only the amine formulation in areas where sensitive crops are grown, and keep a safe distance away from sensitive crops.
3. Do not apply when the wind is blowing toward a sensitive crop.
4. On farms and fields next to sensitive crops, use other weed control chemicals. A wide variety of pre-emergence chemicals is now available for corn and soybeans.
5. To reduce the amount of small spray particles, don't use more than 30 pounds of pressure, and increase the amount of water to 10 gallons per acre.

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Drift of spray particles is one way 2,4-D damage occurs, Slife said. When field or roadside sprayers are used, many fine particles are released into the air. Wind blowing toward a sensitive crop usually causes injury. How far the particles travel depends on their size and the speed of the wind.

If the wind is blowing toward a sensitive crop, do not apply 2,4-D within one mile. In general, 2,4-D should not be applied when the wind speed is above 10 miles an hour.

A second type of damage is caused by volatility of 2,4-D on sprayed plants, according to Slife. Vapor from the ester form can be as harmful as the spray particles. A shift in wind direction may carry the vapor to sensitive crops.

The high-volatile esters produce the most vapor. The lower ones start vaporizing when temperatures go above 60° F. The low-volatile esters are safer to use.

The amine form of 2,4-D is nonvolatile. Use only this form in areas where sensitive crops are grown. Be extremely careful to keep spray particles from drifting.

In 1959 the Illinois State Legislature passed a law that can prohibit use of 2,4-D in certain areas. This law has been invoked in Cook County and will undoubtedly be applied to other areas unless 2,4-D is used carefully, Slife said.

One major insurance company in Illinois has excluded coverage of 2,4-D ester from its farm liability policy because use of this form cannot be defended in court cases. The amine formulations are not excluded.

For more information on use of 2,4-D, ask your farm adviser for College of Agriculture Circular 808, Preventing 2,4-D Injury to Crops and Ornamentals. You can also get a free copy from the University of Illinois College of Agriculture, 112 Mumford Hall, Urbana, Illinois.

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Full-Fat Soybean Meal Performs Well In Illinois Hog Tests

URBANA--University of Illinois tests indicate that full-fat soybean meal can increase the efficiency of hog gains, reports D. E. Becker, head of the swine division.

Becker included the full-fat meal in a standard ration and fed it to growing pigs until they weighed 115 pounds. He also fed the same ration, containing regular soybean meal, to similar pigs. Both rations provided 16 percent protein.

Pigs fed the full-fat meal gained 1.71 pounds daily and required 2.44 pounds of feed per pound of gain. Pigs fed the regular soybean meal gained at the same rate, but required 4 percent more feed per pound of gain.

Becker continued his comparison of the full-fat meal and regular meal after the pigs reached 115 pounds. But he dropped the protein level to 12 percent which is the usual recommendation. This time the pigs fed full-fat soybean meal required 12 percent less feed.

Full-fat soybean meal consists of dehulled soybeans which have been ground and heated, but from which the oil has not been extracted. It contains about 41 percent protein and 21 percent fat. Regular soybean meal contains about 1/10 percent fat.

Becker explains that he and his colleagues are investigating full-fat soybean meal to study its value in giving extra energy to hog rations. Energy costs more than any other ingredient in swine rations. It makes up at least 75 percent of the total ration cost.

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Add Full-Fat Soybean Meal - 2

Both carbohydrates and fat found in corn and soybean meal contribute energy in swine rations. But fat has twice the energy value of carbohydrates. And full-fat soybean meal has considerably more fat than regular soybean meal or corn.

Therefore, Becker wants to find out how much full-fat meal can be included in swine rations to increase efficiency of gains. The rations might contain more full-fat meal than if a regular meal were used.

More tests are necessary, however, to find the economic value of full-fat soybean meal as well as its effect on carcasses. Preliminary tests indicate that it may produce a fatter and softer carcass. But the average percentages of lean cuts did not differ greatly from those of pigs fed a regular soybean meal.



Weed Killers Of Today May Promote Crop Growth Tomorrow

URBANA--Farmers today consider 2,4-D and similar chemicals their friends in the constant fight against weeds. Yet farmers of tomorrow may use some of these same chemicals to boost crop growth and yields.

Minute proportions of these chemicals have increased yields of the common bean more than 10 percent above average in University of Illinois tests, reports Joe Vandemark, vegetable crops specialist.

This report may not surprise some farmers. If they have sprayed fields with weed killers and some spray drifted onto nearby crops, they may have noticed a more vigorous growth and yield in crops that received small amount of drift.

But the old saying, "If a little bit is good, more is better," does not apply here. A little bit of weed killer, about one pound for every 1,000 acres, will not kill weeds or crops; instead it will stimulate growth. But increasing quantities will stifle weeds and have no effect on crops.

Amount and time of application are important in the role of weed killers as growth stimulators. The amount needed to stimulate growth is so small that it's hard to comprehend. For example, the spray left in a spray can after it's washed is more than enough to treat one acre.

In his tests, Vandemark used maleic hydrazide (MH) and 2,4-D on snap beans. Many months of investigation finally showed that a ratio of 100 parts of MH to one part of 2,4-D works best in stimulating growth and yields. This combination slows up top growth, increases

REPORT ON THE PROGRESS OF THE RESEARCH

The first part of the report deals with the general situation of the project. It is noted that the work has been carried out in accordance with the plan laid down in the original proposal. The progress made during the year is described in detail, and it is stated that the results are in general in accordance with the expectations.

The second part of the report deals with the results of the experiments. It is shown that the data obtained are in good agreement with the theoretical predictions. The accuracy of the measurements is discussed, and it is concluded that the results are reliable.

The third part of the report deals with the conclusions drawn from the work. It is concluded that the results are in good agreement with the theoretical predictions. The accuracy of the measurements is discussed, and it is concluded that the results are reliable.

The fourth part of the report deals with the summary of the work. It is stated that the work has been carried out in accordance with the plan laid down in the original proposal. The progress made during the year is described in detail, and it is stated that the results are in general in accordance with the expectations.

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growth of side branches and causes a larger pod set. The result is more uniform yields without much delay in maturity. And the nutritional value of the bean is improved.

Tests have shown that it's best to apply MH and 2,4-D in a single treatment. Plants should be sprayed the first week after emergence with sufficient material to cause runoff.

Tests will continue this summer to learn more about the growth-stimulating abilities of these chemicals. Vandemark and his co-workers are testing them on more crops and hope that they can develop a practical use for this new technique.

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FOR IMMEDIATE RELEASE

## Elsie's Better, Thanks To Dentists, Veterinarians

URBANA--This was not an ordinary dentist's office. The usual dental instruments were replaced with king-sized ones, and the chair was transformed into a metal restrainer designed to keep the head immobile.

The patient was a cow whose teeth had worn down to mere stumps, making it almost impossible for her to eat and drink. Hers was a common but tragic ailment.

The "dentist," a veterinarian, quickly mixed a cement mixture and filled metal crowns shaped like Elsie's teeth. Elsie seemed completely unconcerned as she stood with her head in the restrainer and a block in her mouth to keep her tongue out of the way.

She patiently waited as, one by one, the veterinarian placed the cement-filled crowns over her stumps, which had been cleaned and dried. Within minutes, Elsie had a new set of incisors.

This new dental technique will greatly prolong Elsie's life, according to Dr. R. L. Brewer, University of Illinois veterinarian.

"With this technique cattle can continue to eat," he explained. "Naturally, eating will increase their weight, prolong reproductive life and thus bring the farmer more money."

Until tooth capping was introduced last year, certain conditions made mature cattle worthless within three years. "Sand in sandy

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pastures or acid from beet pulp diets completely wore their teeth down," Dr. Brewer explained. "There was nothing anyone could do."

The situation was hopeless until a Nebraska dentist, Dr. Ward Newcomb, introduced this technique. He designed eight types of stainless steel crowns for different sizes and shapes of teeth. Then he tested the crowns with cattle for over a year before releasing his discovery.

Dr. Brewer spoke enthusiastically about the tooth-capping technique. "During the three-year experimental period, there was little wear on the crowns," he said.

He claimed that the technique is a tremendous money-saver, for now only the teeth and not the cattle have to be replaced.

Some people claim that cattle with capped teeth increase in weight and milk production. This and other claims will be studied by Dr. L. E. Boley, University of Illinois veterinarian, and other veterinarians during a five-year experimental program to begin next week at the Dixon Springs Experiment Station.

"We'll cap one group of 7- and 8-year-old cattle with worn teeth and leave another tooth-worn group uncapped," Dr. Boley explained. "Through this controlled experiment we'll be able to find out how effective the capping is."



Sheep Parasites Can Become  
Resistant to Phenothiazine

URBANA--Phenothiazine, used successfully to combat sheep stomach worms for years, has lost much of its effectiveness, according to University of Illinois research workers.

Dr. Norman Levine, parasitologist of the University of Illinois College of Veterinary Medicine, said tests show that some sheep parasites have developed resistance to phenothiazine. Dr. Levine worked with a team of University veterinarians, animal scientists and statisticians in making the tests.

"We tested animals before giving them phenothiazine, then after giving them regular doses and finally after giving them double doses," Dr. Levine explained. "Phenothiazine had no effect on stomach worms."

Testing was done by counting the eggs laid by the worms. There was no difference in the number of eggs before and after treatment.

Like many other discoveries, this one was made by chance. While teaching graduate students how to recognize parasites, Dr. Levine had them gather fecal samples from a nearby sheep farm.

"The students were supposed to get some samples from sheep that were suspected of having worms. But when the group arrived at the farm, nobody was there, so they gathered samples at random."

Back in the classroom the students examined the samples and found plenty of worms to identify. But this routine assignment netted

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surprising results, for the students had accidentally taken samples from sheep that were supposed to be completely free from worms!

After this first discovery, Dr. Levine and the class enlisted the aid of other veterinarians, animal scientists and statisticians, and testing began.

"Sheep on this farm had been treated with phenothiazine for 19 years," Dr. Levine said. "This is the first time phenothiazine resistance has been found in Illinois, although researchers had discovered it before in other parts of the country."

Research workers are now trying to find effective treatments to combat these parasites.



In The Event Of Atomic War Veterinarians  
Will Give Medical Aid To Injured

URBANA--Veterinarians will play a major role in aiding casualties in the event of atomic war, according to Dr. Harold Boothe, Chicago veterinarian who has worked in civil defense since 1955.

Veterinarians will assist in operations, insert stomach tubes, administer blood and intravenous solutions and perform other medical duties.

"This relieves physicians of functions which others can perform," Dr. Boothe said, "and ensures the fullest possible use of all available personnel resources."

The American Medical Association has asked veterinarians to perform these and other functions during an all-out war. In many respects the only difference between a physician's practice and a veterinarian's practice is the patient--techniques are similar, and instruments usually differ only in size.

Veterinary hospitals and clinics will become centers of activity in suburban areas and small cities, as these places seldom have human hospitals.

"Our hospitals are well supplied with equipment that can be readily adapted to the care of disaster casualties," Dr. Boothe said. Veterinary supplies include surgical instruments, X-ray facilities, oxygen equipment, bandages and dressings, sterilizers, sedatives and anesthetics, antibiotics and drugs.

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"Sheep on this farm had been treated with phenothiazine for 19 years," Dr. Levine said. "This is the first time phenothiazine resistance has been found in Illinois, although researchers had discovered it before in other parts of the country."

Research workers are now trying to find effective treatments to combat these parasites.

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May 26, 1961

To Illinois Daily Newspaper and Radio Stations:

The 1961 state convention of the Illinois Future Farmers of America gets underway on Tuesday, June 6, at the State Fairgrounds in Springfield. As in previous years, it will involve FFA boys from your area as delegates, award winners or special participants. We have instructed each chapter to give you this information, but some may fail to do so. You could probably turn up some good local stories by calling FFA chapters or vocational agriculture teachers in your area to find out who is attending the convention and for what reasons.

Our office has been asked again to handle state-wide coverage for the convention. We have already mailed one advance story, and during the convention we will make direct mailings from Springfield. Stories will include such developments as selection of the State Star Farmer, honorary Star Farmers, chapter award winners and new state officers, as well as major business proceedings.

A team from our office will establish Press Headquarters on the second floor of "Convention Hall" (the Fairground's Exposition Building) to provide the following coverage:

Press: Convention stories will be written and mailed to newspapers from Press Headquarters at the Fairgrounds.

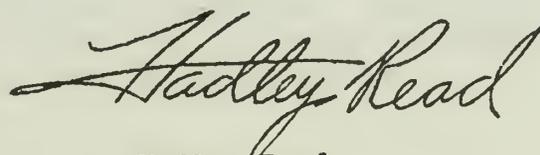
(Special Press Coverage) For stories on what FFA members from your area do at the convention, contact your local FFA adviser. We have sent him suggestions for writing stories and sending them to you. If you would like pictures of boys from your area, our photographer can supply them.

Radio: Radio stations will also receive the stories on major convention developments. Stations receiving our regular tape service will get taped interviews with new state officers and the State Star Farmer the week after the convention.

(Special Radio Coverage) For taped interviews with local FFA boys at the convention, contact your local chapter. Give the chapter representative or adviser a tape, and tell him what type and length of interview you would like. With our recording facilities at Press Headquarters, we will record the interview and mail the tape to you immediately.

Let us know if there is any way in which we can help you cover this major Illinois farm youth event. And if you plan to attend the convention, we'll be looking for you at Press Headquarters.

Sincerely yours,



Hadley Read  
Extension Editor

Illinois State University

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FOR IMMEDIATE RELEASE

## FFA Members Seek Star Farmer Award At State Convention

SPRINGFIELD--Only five outstanding young men representing more than 16,000 Illinois Future Farmers of America members now remain in competition for the coveted Illinois Star Farmer Award.

This is the highest state award available to Illinois FFA members. The winner will be announced at the State FFA Convention in Springfield June 6-8.

The final contenders include Dale E. Cohenour, 17, son of Mr. and Mrs. Dale E. Cohenour, Sr., Sterling; LeRoy "Dutch" Klitzing, 18, son of Mrs. Elizabeth Klitzing, Altamont; Donald L. Knepp, 18, son of Mr. and Mrs. Carl Knepp, Washington; James Wilson, 17, son of Mr. and Mrs. Harry Wilson, Stanford; and Richard D. Winter, 17, son of Mr. and Mrs. Norman Winter, Burnt Prairie.

Selection of the Star Farmer Award winner is based on the over-all size, growth and earnings of his FFA-supervised farming activities. Scholastic ability and school and community activities are also considered.

Each of the five final contenders raise as much as 100 acres of corn, soybeans, small grains and legumes. They also raise beef cattle, dairy cows, hogs or sheep, in addition to studying and carrying on the usual high school activities.

The Illinois FFA is part of the official nation-wide organization of high school vocational agriculture students. Illinois has nearly 500 chapters. H. R. Damisch, chief of Illinois agricultural education, is the official adviser to the Illinois FFA.

THE COMMISSIONER OF REVENUE

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STATE OF OHIO

NOTICE IS HEREBY GIVEN that the following is a list of the names of the persons who have been appointed to the office of Justice of the Peace for the term ending on the 1st day of January, 1911.

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Here's The Latest On Pelleted  
Feeds For Dairy Cattle

URBANA--Although no entirely practical method of pelleting feeds for dairy cattle has been developed, interest in concentrate and hay pellets is growing among the nation's dairymen.

And growing equally fast is the number of questions dairymen ask about pelleted feed.

University of Illinois dairy scientist Leo Fryman says results of tests conducted at Oregon State College comparing pelleted hay with both baled and wafered hay are typical of those in many recent trials.

In the Oregon tests, cows consumed hay at about the same rate in all three forms. The three cow-groups on test also produced about the same amount of milk. However, cows on pelleted hay showed a significantly lower fat test than those in the other groups.

Fryman says one explanation for this fat test drop is that ground and pelleted hay passes through the rumen too fast for complete bacterial fermentation.

Feeding some long hay or silage with pellets usually solves this problem. Butterfat tests weren't affected when researchers fed cows unground hay in the wafered form.

Fryman says that probably the greatest benefit from pelleting grain for milking cows is in the more rapid consumption rate. Some researchers find that pelleting boosts grain consumption rates by about 25 percent. This indicates that pelleting may come in handy when cows are milked in a parlor where time allotted for eating grain is limited.



## Add Pelleted Feeds For Dairy Cattle - 2

Fryman says it's usually not practical to put the entire ration, both concentrates and roughage, together in one pellet. That's because individual production levels in a herd usually vary. For most economical production, the proportion of concentrate to roughage should vary with each cow's production.

U. of I. research with dairy calves shows that they eat considerably more pelleted hay than long, chopped or ground hay. As a result, they eat less grain with pelleted hay.

Fryman points out that from a nutritional viewpoint it doesn't make any difference whether the calf starter is in pellet form or fed as a meal. However, when calves are allowed to choose between meal and pellets, they eat slightly more of the pelleted starter.

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FOR IMMEDIATE RELEASE

## Tuberculosis Finds Another Host--Deer

URBANA--Tuberculosis, a long-time threat to man and farm animals, has found a new host in the U. S.--deer.

Two white-tailed deer, pets of an Illinois farmer, became the first TB cases ever reported in deer in the state, according to University of Illinois veterinarians. Dr. P. D. Beamer, now in India, was the first to suspect the disease.

"Once Dr. Beamer was convinced that it was tuberculosis, we spent two years tracking down the source of infection," Dr. Deam Ferris said. He, along with Dr. Beamer, Dr. J. O. Alberts and conservation officials traced the source first to northern Wisconsin and then to Michigan.

The real culprits, they concluded, were men or cattle, as deer are often raised on dairy farms in Michigan, Wisconsin and Minnesota.

Deer are becoming more popular as pets on Illinois farms, according to Dr. Ferris. And with this increasing popularity comes the increasing danger that deer will contract and transmit TB. Dr. Ferris urges farmers to have newly purchased deer tested for TB.

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Armyworms Spotted In Southern Illinois;  
Farmers Should Be On The Alert

URBANA--Armyworms have been spotted in southern Illinois barley and wheat fields, reports H. B. Petty, entomologist with the University of Illinois and Illinois Natural History Survey.

So far the small size of the worms has prevented an accurate count. Therefore it's still too early to tell how serious the problem may become.

But Petty advises Illinois farmers to keep alert. Armyworm outbreaks usually occur first in timothy and other grassy fields. These are the places where moths lay their eggs in the spring. Later outbreaks occur in barley, rye and wheat fields. If you find worms here, check other locations.

If there are six or more worms per linear feet of row, control measures will pay. However, wait until worms are half-grown, about one-half inch long. Until they reach this size, they cause little damage.

Petty recommends 1 1/2 pounds of toxaphene or 1/4 pound of dieldrin per acre for treating small grains. Allow seven days between treatment and harvest when using dieldrin; seven days when using toxaphene on wheat, but 14 days when using toxaphene on barley.

For beef pastures, use toxaphene. Allow 42 days between the last grazing on treated pastures and slaughter. For dairy pastures, use two pounds of methoxychlor or one pound of malathion per acre. Do not graze for one week following treatment.

THEY WERE SCOTCH IN SOUTHERN ILLINOIS  
WHEAT SHOULD BE ON THE WIND

IRRAWA—Agricultural experts have been quoted in southern Illinois  
and wheat fields reports H. B. Petty, entomologist with the Uni-  
versity of Illinois and Illinois Natural History Survey.  
So far the small size of the worms has prevented an accurate  
count. Therefore it's still too early to tell how serious the problem  
may become.

But Petty advises Illinois farmers to keep alert. Although  
outbreaks usually occur first in timothy and other heavy grasses, these  
the places where moths lay their eggs in the spring. Later on  
wheat occurs in barley, rye and wheat fields. It has been found  
in other locations.

It takes six or more worms per linear foot of row, control  
measures will pay. However, with early warning and fall-plow, about one-  
half inch long. Until they reach this size, they cause little damage.  
Petty recommends 1 1/2 pounds of roxarsone or 1 1/2 pounds of  
dieldrin per acre for treating small grains. Allow seven days between  
treatment and harvest. Now when dieldrin is on crops, avoid treat-  
ment on wheat, but 14 days when using roxarsone on barley.

For best results, use roxarsone. Allow 25 days between the  
last feeding on treated pastures and alighting. For barley, however,  
use two pounds of roxarsone per acre on one pound of dieldrin per acre. Do  
not graze for one week following treatment.

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U. of I. Livestock Judging  
Team Wins Regional Contest

URBANA--The University of Illinois livestock judging team made almost a clean sweep of the North Central Intercollegiate Livestock Judging Contest recently held at Ohio State University.

The Illini, coached by W. W. Albert, won the over-all contest as well as the beef cattle and swine judging divisions. Other competing teams included Michigan, Pennsylvania and Ohio State Universities, Purdue University and the Universities of Wisconsin and West Virginia.

Illinois team members included Gene Weber, Thawville, who placed first in individual swine judging and first in over-all judging; Donald McAtee, Greenview, second high individual in over-all judging; John Webb, Clinton, first in beef cattle and fifth in over-all; Charles Bickelhaupt, Mt. Carroll, first in sheep and seventh in over-all; and Larry Duies, sixth in over-all.

Other Illini competing in the contest included Phillip L. Dollahon, Seymour; Marvin Hayenga, Baileyville; Lance Humphreys, Gilson; Jon Proehl, Manito; and Duane Haning, Minier.

Seven more Illinois students who competed in a livestock evaluation contest included Roland Yeast, Atlanta; James Schoonaert, Washington; Delbert Dahl, LaHarpe; Robert E. Sipp, Dunlap; Ken Fuller, Aledo; Lendell Dierker, Forest City; and Charles Spears, Shelbyville.

All boys are juniors in the College of Agriculture.

This was the first contest for Coach Albert's 1961 team. Next fall the team will compete at the American Royal, Kansas City, and the International Livestock Exposition, Chicago.

The 1960 U. of I. team also won the spring regional contest and the American Royal contest, and placed fifth at Chicago.



Governor Kerner To Address Final  
Session Of State FFA Convention

SPRINGFIELD--Governor Otto Kerner will address the final session of the Illinois Future Farmers of America Convention at the State Fairgrounds Thursday evening, June 8.

The same session will also highlight the naming of the State Star Farmer award winner and outstanding Illinois citizens to receive Honorary State Farmer degrees.

The list of Star Farmer candidates has narrowed down to five: Dale Cohenour, Sterling; LeRoy Klitzing, Altamont; David Knepp, Washington; James Wilson, Stanford; and Richard Winter, Burnt Prairie.

The convention, which opens Tuesday morning, June 6, will attract more than 1,500 Illinois FFA members from every corner of the state. The three-day program features speaking contests, presentation of special awards, election of 1961-62 officers, business sessions and entertainment.

Presiding over the various sessions will be the current officers: President Lynn Laible, Toluca; Vice-President Dan Crumbaugh, LeRoy; Secretary-Treasurer Bryan Koontz, Hillview; and Reporter Ron Gehrig, Wyoming.

The Future Farmers of America is the official organization of high school boys enrolled in vocational agriculture. Illinois has nearly 500 FFA chapters.

The official advisor of the Illinois FFA is H. R. Damisch, chief of agricultural education, Springfield. G. D. Coil, also of Springfield, serves as executive secretary.



Farm Advisers Go Back To "School"  
At Annual Conference, June 5-8

URBANA--About 170 Illinois farm advisers and their assistants will return to school next week.

This back-to-the-classroom venture is all part of the annual summer conference for agricultural extension workers. University of Illinois staff members are presenting 19 different courses to the conference participants.

Each adviser will enroll in two 10-hour courses. Subjects include all phases of crop and livestock production, insect and disease control, lawn care and landscaping, farm policy analysis and improved methods of carrying out extension programs.

As local representatives of the University in every county of the state, farm advisers and their assistants are constantly questioned about latest farming problems. The home owner also seeks advice about garden and lawn care.

Besides the class sessions, extension workers will hear about the latest administrative developments from Dean Louis B. Howard, state director of the Cooperative Extension Service, and J. B. Claar, associate director.

The annual conference brings advisers up to date on latest developments to better serve all citizens in their counties.

(Note to Editor: You might want to get more details from your local farm adviser.)

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FOR A. M. RELEASE FRIDAY, JUNE 9, 1961

## Richard D. Winter Receives FFA's Highest State Honor

SPRINGFIELD--Richard D. Winter, a 17-year-old high school senior from Burnt Prairie in White county, last night received the Illinois Star Farmer Award, the highest state honor an FFA member can achieve.

This annual award goes to the Future Farmer member with the most outstanding record. Richard received the award at the closing session of the 33rd annual State FFA Convention last night at the State Fairgrounds.

Richard, son of Mr. and Mrs. Norman Winter, is a member of the Carmi FFA chapter. He became a member four years ago as a high school freshman. The FFA is the official organization of high school boys enrolled in vocational agriculture courses.

In addition to their usual school work, FFA members also carry on supervised farming programs. During his freshman year, Richard raised five head of beef cattle and eight acres of corn. By his senior year, his farming program included 48 beef cows, 25 acres of corn, 30 acres of oats, 10 acres of legume hay, 25 acres of soybeans and 10 acres of wheat.

In his FFA chapter, Richard served as vice-president during his freshman and sophomore years and as president in his junior and senior years. He has previously been named FFA Sectional and District

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Add Richard D. Winter - 2

Star Farmer, won the Sectional Small Grains Production Contest and Extemporaneous Speaking Contest and won his chapter's beef production contest for two years.

In school, he's a member of the National Honor Society, Senior Executive Council, Prom Committee, Honor Roll and various committees. He has also competed in soil, dairy and livestock judging contests. His vo-ag teacher is Ernest O. Johnson.

Richard will now compete for the regional Star Farmer Award.

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held for the year.

In order, and a number of the members of the Commission, and  
Executive Committee, and Committee, and other members.

It has also been decided to call, and the Commission should be  
held for the year.

It is also decided to call, and the Commission should be  
held for the year.

11/11/11

Brandly Tells Man's Role In Poultry Diseases

URBANA--Man can not only become the victim, but also the transmitter of Salmonellosis, Newcastle disease, Q fever and other poultry diseases, Dr. Carl Brandly told a group of poultry scientists today. Dr. Brandly, dean of the University of Illinois College of Veterinary Medicine, spoke at the 12th annual North Central Poultry Disease Conference which met at the University.

Man, according to Dr. Brandly, is susceptible to both bacterial and virus infections common in poultry. Salmonellosis and staphylococcus infection are caused by bacteria; Newcastle, Q fever, encephalitis and ornithosis are caused by viruses.

"Both salmonella and staphylococcus cause food poisoning or local infection in man, who in turn passes the diseases on when sorting and sexing chicks," Dr. Brandly said.

Newcastle is an occupational disease that usually strikes flocks, flock owners and scientists working in diagnostic laboratories or making live vaccines. "Newcastle disease usually affects the eye," he explained, "but lung and generalized infections also occur in man."

Both Q fever and ornithosis result in fever that may last several weeks in man, according to Dr. Brandly. Until now, Q fever in poultry has been reported only in European countries, but growing tourism increases the chances of its becoming a problem in this country.

Encephalitis, or sleeping sickness, is most common in pheasants and pigeons, Dr. Brandly said. Birds may remain carriers for a long

Early Tissue Reaction in Infectious Diseases

1953--can one not say that the tissue reaction in the  
 countries of salmonella? However, it is not clear  
 by disease, Dr. H. H. Hensley, with a group of workers, Boston  
 University, has been at the University of Illinois College of Veterinary  
 Medicine, working on the 15th annual meeting, Society of Infectious  
 Diseases with me at the University.

Now, according to Dr. Hensley, in salmonella in man, the  
 early tissue reaction is similar to that in salmonella in  
 experimental infection are caused by certain bacteria, Q fever,  
 brucellosis and leptospirosis and some in man.

"Both salmonella and leptospirosis cause fever, headache and  
 malaise in man, who in turn passes the disease to other animals  
 by contact, Dr. Hensley said.

Salmonella is an opportunistic disease that usually follows  
 food, both animal and vegetable, working in the laboratory. In  
 the first few weeks, salmonella disease usually follows the egg,"  
 he explained. "The food and generalized infection are common in man."  
 Both Q fever and leptospirosis occur in man and other animals.  
 Q fever is caused by the bacteria, Coxiella burnetii, which is  
 widely distributed in man and other animals, but usually  
 occurs in man. According to Dr. Hensley, Q fever is  
 usually reported only in the United States, but occurs  
 in other countries. The disease is caused by a bacterium in the country  
 of sheep and goats, a disease in man and other animals.

Dr. Hensley said, "There are many other diseases in man and

time without showing signs of this disease, which is transmitted from animal to man or vice versa by mosquitoes.

"Man is often the chief offender in spreading these diseases," Dr. Brandly said. This knowledge, along with increased knowledge about other means of transmission, is aiding veterinarians in setting up better control methods. These methods include environmental sanitation, destruction of sick and carrier birds and proper use of vaccines and other therapeutic agents.

"In spite of some disease hazards, the poultry industry provides man with employment and an economical and nutritious source of animal protein," Dr. Brandly said. Also, poultry eat grain and other agricultural products and thus reduce the agricultural surplus.



Home Owners Should Check  
Evergreens For Bagworms

URBANA--Home owners can stay a jump ahead of bagworms by checking evergreens and other trees and shrubs now for these odd little fellows.

Bagworms are now hatching in central Illinois and will soon hatch in the northern sections, reports Steve Moore, entomologist with the University of Illinois and Illinois Natural History Survey.

These black worms consider evergreens and a wide variety of deciduous trees and shrubs quite a delicacy. They may strip the leaves, damaging deciduous trees and possibly killing evergreens.

Since bagworms are easy to control while they're small, Moore advises spraying about June 15 in central Illinois and about July 1 in northern Illinois. Southern Illinois home owners can spray any time after June 1. Here are several recommended sprays:

Lead arsenate: Use 1 tablespoon in one gallon of water. Or mix 4 pounds in 100 gallons of water.

Malathion (50 percent liquid): Use 2 teaspoons to make one gallon. Or mix 1 quart in 100 gallons of water.

Malathion (25 percent wettable powder): Use 1 tablespoon in one gallon of water. Or mix 4 pounds in 100 gallons of water.

Toxaphene (60 percent liquid): Mix 3 teaspoons in one gallon of water, or use 3 pints in 100 gallons of water.

Moore says that malathion will also control any mites that might be present. But malathion can injure Cannart red cedar.

Spray trees and shrubs thoroughly. If it rains soon after spraying, spray again.

Bagworms are so named because they build bags with silken threads and bits of leaves and twigs. Everywhere the worm goes, his bag goes.

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These data were obtained from a series of experiments in which the effect of various factors on the rate of reaction was studied. The results are shown in the following table.

The rate of reaction was found to be independent of the concentration of the reactants, but it was found to be dependent on the temperature. The rate of reaction increased as the temperature increased.

The activation energy for this reaction was found to be 15.0 kcal/mole. This value is in good agreement with the value obtained from the Arrhenius plot.

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Red Stele Disease Now Showing  
Up In Strawberry Plants

URBANA--If your strawberry plants aren't too healthy-looking, chances are they have a root rot called red stele disease.

Frank W. Owen, University of Illinois fruit crops specialist, says that symptoms of red stele are now showing up in commercial and home strawberry plantings.

Wilted leaves that are rolled at the edges are the first sign of the disease's presence. The leaves take on a dull lead cast instead of a bright, healthy green. The plants become stunted and berries dry up. Root tips die and then the entire plant soon dies.

To find out definitely whether red stele has infected your strawberry plants, dig up the roots of several plants. If the stele, or center core, is red or brown, the plants are infected.

Unfortunately this disease cannot be cured. Once it infects a strawberry patch, turn the plants under. Planting varieties that are resistant to red stele is the only way to prevent the disease. Three such varieties include Surecrop, Vermilion and Sparkle, which is also known as Paymaster.

There are, however, several strains of the red stele disease. And Surecrop will resist more strains than the other two. If you have lost your strawberry patch to red stele disease this spring, try planting these three varieties next spring.

Owen explains that Illinois' cool, wet spring has increased the number of red stele cases. Normally it occurs only in low, poorly drained areas. But under cool, moist conditions, it strikes varieties planted on well-drained areas.

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FOR IMMEDIATE RELEASE

## Illinois FFA Elects New State Officers

SPRINGFIELD--Four outstanding young men were elected Thursday (June 8) as new state FFA officers to lead the more than 15,000 Illinois Future Farmers of America.

The new officers, elected at the State FFA Convention in Springfield, include:

President: Kenny McMillan, Prairie City.

Vice-President: Richard Walters, Hebron.

Secretary-  
Treasurer: Richard Carter, Dieterich.

Reporter: Gene Grubb, Rochester.

McMillan is the 18-year-old son of Mr. and Mrs. Keith McMillan.

A University of Illinois sophomore majoring in agricultural industries and minoring in agricultural journalism, Kenny is an honor student. He was valedictorian of his high school class (78 students), is a University James Scholar and was just named outstanding freshman in the U. of I. College of Agriculture.

Kenny has served as sectional FFA vice-president and reporter and also as district reporter. He was also president of the Prairie City--Bushwell chapter. Kenny will drop out of school this coming year to handle the many duties required of the state president.

Richard Walters, 18, is the son of Mr. and Mrs. Ervin Walters of Hebron. Richard graduated from high school last year and is now



farming 270 acres, raising Angus cattle, Berkshire and Hampshire hogs, corn, soybeans and small grains.

In his FFA work, Richard has served as director of FFA District III and as secretary and president of the Hebron chapter. He was also named Sectional Star Farmer last year.

Richard plans to be married to Donna Gile of Hebron on July 8.

"Rich" Carter is the 19-year-old son of Mr. and Mrs. Levi Carter, Dieterich. He also graduated last year and is now farming 200 acres with his father. They raise hogs and cattle in addition to crops.

"Rich" has served as his chapter's president, was a state finalist in FFA extemporaneous speaking last year, has been his chapter's Star Farmer, received a State Farmer degree in 1960 and was vice-president of FFA Section 20 and director of FFA District IV.

Gene Grubb, 18, is the son of Mr. and Mrs. Merle Grubb, Rochester. This year Gene is receiving the Illinois FFA Foundation Award for his outstanding work in farm electrification. He has served as his chapter's president; has won chapter production awards in corn, soybeans and soil and water management; has been named his chapter's Star Farmer; and has received the DeKalb Outstanding Senior award.

Gene has received a four-year Air Force scholarship, but has not decided where he will attend college.

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Illinois State 4-H Club Week Set For June 21-23

URBANA--Some 1,200 Illinois 4-H Club members and leaders have been named delegates to the Illinois State 4-H Club Week program at the University of Illinois June 21-23. The big three-day event is the first of its kind since before World War II.

Main objectives of the program are to review and discuss 4-H project and activity goals in Illinois and to outline career opportunities available to young people after high school. All delegates will be high school sophomores or older.

Program chairman Bill Stone of the U. of I. 4-H staff says group discussions on 4-H projects and activities, addresses by prominent speakers, tours of the U. of I. campus and career exploration sessions are educational highlights of the 4-H Club Week program.

Entertainment features include a barbecue in the giant U. of I. football stadium and a 4-H friendship party in Huff Gymnasium.

Featured speakers for the event are Mrs. Marcus Goldman, former delegate to the United Nations, and Mrs. Evelyn Millis Duvall, noted author and family life consultant.

Stone says major delegate interest could center around the career theme of the program. Career sessions will cover a wide range of opportunities ranging from jobs in agriculture and home economics to business, mechanics, nursing and teaching.

A number of exhibits explaining career opportunities will be set up throughout buildings reserved for the program. Delegates also will attend a general assembly organized around the theme, "The Career in Your Future."

Annual Report of the Board of Directors

The Board of Directors has the honor to acknowledge the cooperation and assistance of the various departments of the University of Illinois during the year 1952-1953. The Board also wishes to express its appreciation to the many individuals who have contributed to the success of the University's activities during the past year.

The Board has also been pleased to note the progress made in the various fields of research and scholarship during the year. The Board believes that the University has made significant contributions to the advancement of knowledge and the betterment of society during the past year.

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Professional Farm Managers Schedule Farm Tour

URBANA--Illinois' professional farm managers will see and hear the latest on mechanized livestock feeding, field shelling and drying, grain and hay storage and artificial breeding services during their six-stop tour of northern Illinois June 22 and 23.

The tour gets under way at 10 a.m. Thursday morning, June 22, at the Northern Illinois Breeders Cooperative at Hampshire. After lunch the group will visit farms operated by Harvey Newport and Robert Newport near Belvidere. Here they will see dairy and hog production using latest feed-handling methods.

After dinner at Northern Illinois University, DeKalb, tour members will hear a panel of farmers tell how they are cutting costs and trying to avoid the squeeze due to lower prices and higher costs.

On Friday the tour moves to the Willrett-Toppe farm south of Malta. Here they will see a modern mechanized cattle feeding operation. On this farm the owner furnishes machinery and the operator furnishes only labor.

The second stop will be on the Ronald Byro farm. Here a professional rural appraiser will report his estimated value of a modern improved 80-acre farm and an adjoining 160 acres that was bought at the same time.

After lunch the group will visit the Lewis B. Pierce Angus farm near Creston. The owner uses artificial breeding for his 150-cow purebred herd.

This tour is sponsored by the Illinois Society of Professional Farm Managers and Rural Appraisers. Glenn Oertley, Peoria, is president. Fay M. Sims, University of Illinois farm management specialist, serves as secretary-treasurer. Richard Conlin, Belvidere; Max Fox, DeKalb; Joseph Henderson, Dwight; Charles Roodhouse, Freeport; Kenneth Tucker, Pontiac; and Charles Vial, Chicago; arranged the tour.





FOR IMMEDIATE RELEASE

## Tour Stops Announced for U. of I. Agronomy Day

URBANA--University of Illinois agronomists are featuring some of the newest ideas in crop production and soil management on the Agronomy Day tours June 28 at Urbana.

Here are some of the highlights of the 18-stop tour of crops and soils research now in progress:

M. B. Russell, head of the department, will report on research to reduce water use by crops. Research workers are covering some plots with plastic early in the season to reduce evaporation. Another study underway is the application of hexadecanol to the soil to see whether water loss through evaporation can be reduced.

A. L. Lang will show research under way on high population and high fertilization of corn. Nearby, L. B. Miller will show the study on rotations comparing corn and soybeans with a corn-soybeans-wheat-clover rotation.

B. J. Gossett will display new alfalfa seedings established with the aid of herbicides to control weeds without use of a small grain nurse crop. He will also show alfalfa in its second year that was established by using weed control chemicals and no nurse crop. The plan is to compare yields of this alfalfa with plots established by regular seeding methods.

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C. N. Hittle will display 30 different alfalfa varieties he is testing this year. This group includes some experimental types and some varieties now in use by Illinois farmers. Some are recommended for Illinois farms and some are not.

R. O. Weibel will show around 20 different hard and soft wheat varieties. J. W. Pendleton will report on tests underway with 20 oat varieties and five special experimental selections. C. M. Brown will report on breeding oats for yellow dwarf resistance.

Ellery Knake will show studies underway with various weed control chemicals.

D. W. Chamberlain will explain the soybean disease situation. J. W. Gerdemann will discuss root infections on field crops.

Other tour stops will include the current insect situation, soil moisture studies, tips on growing a good lawn, organic matter research and fertilizer studies on soybeans.

The agronomy research farm is located directly south of the main University campus in Champaign-Urbana. Tours begin at 9:30 a.m. and continue through the day. Lunch will be available at the farm during the noon hour.



Face Flies Becoming More Serious With Hot Weather

URBANA--Face flies, the newest insect to plague midwestern livestock, are becoming more numerous as hot weather moves into Illinois, reports Steve Moore, entomologist with the University of Illinois and Illinois Natural History Survey.

These flies are so named because they cluster on the faces of cattle, horses and open-faced breeds of sheep. They feed on eye and nose secretions, and entomologists suspect that they may transmit such diseases as pink eye.

The annoyance they cause animals, however, also reduces milk production and retards beef gains.

Face fly "baits" are so far the best way to control these pests. Developed by W. N. Bruce, INHS research entomologist, most baits contain corn syrup, water and 2/10 percent of the insecticide DDVP. The syrup attracts flies to the bait; the DDVP kills them.

Moore recommends painting the foreheads of cattle and horses with a bait for 14 days after the flies first appear. Then make applications as needed.

This method, however, isn't so practical for beef cattle. Therefore Moore recommends backrubbers that contain 5 percent toxaphene in oil. Backrubbers work especially well if they have a small flap that flops against the faces of the cattle.

Face flies also cluster on the withers, neck, brisket, legs and sides of the animal, feeding on saliva deposits or on blood from other wounds or insect bites.

Face flies were first spotted in the U.S. in 1953 and in Illinois during 1959.

FLIES BECOMING MORE HARMFUL TO LIVESTOCK

...from flies, the most common pest of livestock...  
...and feeding more numerous in wet weather...  
...and associated with the University of Illinois...  
...Illinois Natural History Survey...  
...These flies are so common because they cluster on the faces of...  
...flies, horses and other animals of the... they feed on eye and...  
...the aerobically and anaerobically... that they may transmit...  
...diseases of high order.

The annoyance they cause animals, however, also reduces milk...  
...production and reduces beef gains.

The fly "killer" is so far the best way to control flies...  
...developed by W. S. ... this research entomologist, said...  
...main component water and 2% ... of the insecticide DDT...  
...up animals flies to the eyes; the DDT kills them.

...recommends painting the forehead of cattle and horses...  
...a bait for 14 days after the flies first appear. Then more applica-  
...ions are needed.

This method, however, isn't as practical for beef cattle...  
...because these commonly troublesome flies contain 2 percent...  
...D.D.T. ... work especially well if they have a small fly...  
...the animal the faces of the cattle.

...flies also cluster on the ears, neck, and legs...  
...of the animal, feeding on saliva deposits or on blood from...  
...wounds or insect bites.

...flies were first reported in the U. S. in 1951 and in 1952...  
...in 1953.

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12:50

Note to Editor. For information on veterinary graduates from your area see attached sheets.

Receives D.V.M. Degree

\_\_\_\_\_ received the Doctor of Veterinary Medicine degree from the University of Illinois during commencement services held in the University stadium today. Dr. \_\_\_\_\_, whose parents live at \_\_\_\_\_, was one of 35 students receiving their D.V.M. degrees.

The first two years of Dr. \_\_\_\_\_'s pre-veterinary college training consisted of general courses which gave him a basic knowledge not only of liberal arts, but also of the science courses yet to face him.

He entered the College of Veterinary Medicine during his third year. Here he spent two years getting a solid science background from textbooks, lectures and classroom discussions. He then concentrated on animal diseases and medical practices.

Much of Dr. \_\_\_\_\_'s last year was spent working in clinics and laboratories under faculty supervision. Theory was put to practical use in diagnosing and treating disease.

During his six-year training program, Dr. \_\_\_\_\_ received several honors.

Dr. \_\_\_\_\_ plans to \_\_\_\_\_.

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<u>NAME</u>	<u>HOME ADDRESS</u>	<u>HONORS</u>	<u>PLANS</u>
Armstrong Jr., Carl T.	Hinckley	Bailey scholarship for four years. Treasurer of Illinois student chapter, American Veterinary Medicine Association.	General practice with Dr. G. W. Lantis, Quincy.
Barthel, Calvin	R. 2, Milledgeville	Phi Zeta, national veterinary honor society	Work for Dr. W. K. Dowding in general practice, Warren.
Bradbury, Richard P.	R. 1, Trivoli		Enter U.S. Air Force in fall.
Brewer, Joseph L.	Northlake Rd., Springfield		Work in Springfield with Dr. L. J. Garvert.
Cosnow, M. Allen	2851 W. Summerdale Chicago 25		One-year internship at University of Pennsylvania School of Veterinary Medicine, Philadelphia.
Day, Albert J.	514 W. Ninth Ave. Monmouth		General practice with Dr. Marion D. Bliler in Taylorville.
Dick, Edward J.	Belvidere		Small animal practice in San Antonio, Texas.
Duce, Joseph A.	Stanley, Wisconsin (Attended Stanley High School--graduated in 1949)	B.S. in veterinary medicine with honors (1959). Graduating with honors means having a grade-point average of 4.35 (B) or better. Phi Kappa Phi (all-university scholastic honor society). Phi Zeta (national veterinary honor society). Received D.V.M. with honors (grade average of 4.35 or better; U. of I. has 5-point system).	Mixed practice with Dr. G. E. Sedlacek in Plainfield, Illinois.



<u>NAME</u>	<u>HOME ADDRESS</u>	<u>HONORS</u>	<u>PLANS</u>
Feldman, Donald B.	6923 N. Wayne, Chicago		Small animal hospital, North Shore Hospital 1817 Church, Evanston.
Friedman, Lawrence	4833 N. Kimball Ave. Chicago 25		Practice in western U.S.
Hampton, Robert E.	Aledo	Served as officer of Illinois student chapter, American Veterinary Medical Association. Member of Omega Tau Sigma (professional veterinary fraternity).	General practice in Shannon.
Hankes, Gerald H.	Pleasant Valley Farm, Plano	President of Illinois student chapter, American Veterinary Medical Association. Received H. Preston Hoskins Editorship Award for serving as co-editor of ILLINOIS VETERINARIAN (student publication sent to Illinois practitioners).	General practice with Dr. W. C. Hall at Elburn.
Harding J. Kendell	R. 1, Carlinville	Phi Zeta (national veterinary honor society). Received Mark L. Morris Animal Foundation Research Grant. Received D.V.M. with honors (grade-point average of 4.35 or better; U. of I. has 5-point system).	Animal Disease Eradication Division, U. S. Department of Agriculture--assigned to Wyoming.
Hirth, Robert Stephen	Tolland Ave., R. 1, Rockville, Conn.	Phi Zeta (national veterinary honor society). Vice President, Illinois student chapter of American Veterinary Medical Association.	Work in Army Biological and Chemical Research, U. S. Army Laboratory, Ft. Detrick, Maryland.

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NAMEHONORSPLANSHOME ADDRESS

Horn, John	R. 1, Atlanta			General practice in Seminole, Oklahoma.
Huxsoll, David Leslie	R. 1, Aurora, Indiana	Phi Zeta (national veterinary honor society). Phi Kappa Phi (all-university scholastic honorary). Omega Tau Sigma (professional veterinary fraternity). Received D.V.M. with honors (grade-point average 4.35 or better; U. of I. has 5-point system).		Two-year tour of duty as first lieutenant in U. S. Army Veterinary Corps.
Kinser, Robert L.	Greenfield	B.S. in Agriculture in 1953. Army two years. One-year pre-veterinary medical training at Western Illinois. Then came to U. of I. College of Veterinary Medicine		Partnership in practice with Dr. J. A. Downard in Greenfield (about July 1).
Knutson, Wesley D.	R. 4, Morris			Own large animal practice at Alpha in Henry County.
Kopecy, Kenneth E.	271 Southcote Rd. Riverside			National Animal Disease Laboratory, Ames, Iowa (probably working on TB). Graduate work at Iowa State.
Landau, Louis E.	Scioto Mills			Large animal practice with Dr. W. G. Bauman in Barrington.
Lang, C. Max	R. 1, Westfield	Omega Tau Sigma outstanding senior award in 1961. (professional veterinary fraternity).		Work for federal government until August 23--U.S. Army Veterinary Corps with permanent assignment at Redstone Arsenal, Huntsville, Ala.

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NAME

HOME ADDRESS

HONORS

PLANS

Lehner, Noel

Address of in-laws:  
8601 S. Winchester St.  
Chicago

Army

Losch, Marjorie Braun

Former address:  
302 S. Washington  
Wheaton  
(Parents now live in  
Williams Bay, Wisconsin.

Will set up large animal  
practice with her husband,  
William R. Losch, in Baraboo,  
Wisconsin.

Losch, William R.

Former address:  
R. 1, New Canton (attended  
school in Barry). Parents'  
present address, 805 E.  
Fair Oaks, Peoria

Set up large animal practice  
with wife, Marjorie Braun Losch,  
in Baraboo, Wisconsin.

Mackay, David B.

R. 2, Mt. Carroll

Phi Kappa Phi (all-  
university scholastic  
honorary). Phi Zeta  
(national veterinary  
honorary). Women's  
Auxiliary of American  
Veterinary Medical  
Association award  
(given to senior who has  
done most to further  
veterinary medicine on  
campus). Received D.V.M.  
with honors (grade point  
average of 4.35; U. of  
I. has 5-point system).

Mixed practice in either  
western U. S. or Canada.

Olin, Fred H.

1455 W. Rascher  
Chicago 40

Will enter Army in January.

Patel, Lee

3532 N. Pioneer Ave.  
Chicago 34

16-month internship at Angell  
Memorial Hospital in Boston,  
Massachusetts. Specialize  
in small animals.

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<u>NAME</u>	<u>HOME ADDRESS</u>	<u>HONORS</u>	<u>PLANS</u>
Rehn, J. Wayne	Oско		Work for Dr. James Bright, Geneseo.
Roder, Lawrence J.	602 Ruby St., Joliet	Dr. L. E. Fisher Award for proficiency in small animal clinical medicine. H. Preston Hoskins Editorship Award for serving as co-editor of the ILLINOIS VETERINARIAN (student publication sent to Illinois practitioners).	Serve two-year term as first lieutenant in U. S. Army Veterinary Corps.
Rose, Philip Q.	711 Edward St., Henry		Large animal practice in Evansville, Wisconsin. Associated with Drs. Ed and Howard Krueger.
Seavey, Ellis E.	1004 4th Ave. Sterling (parents live at R. 1)		Practice with Dr. E. E. Calhoun, Sterling.
Strack, Louis E.	R. 1, Ivesdale	Bronze tablet (upper 3 percent of his class for at least the last four semesters). Class valedictorian. Secretary for Illinois student chapter, American Veterinary Medical Association. Received D.V.M. with <u>high honors</u> (grade-point average of <u>4.75</u> or better; U. of I. has 5-point system).	Work in general practice in Murphysboro.
Thomson, Lester G.	R. 1, Adair		Work for federal government, testing for TB and brucellosis. Then Army service.
Uhland, Freddie L.	Liberty	Clinic Proficiency Award given by Illinois American Veterinary Medical Association.	Indefinite.



NAME

Wronke, Kenneth L.

HOME ADDRESS

224 Indian Trail Drive  
Lake in the Hills  
Algonquin

HONORSPLANS

Practice with Dr. Harold  
Bahe of Hampshire in large  
and small animal practice in  
Hampshire-Algonquin area.





FOR IMMEDIATE RELEASE

## Fungus May Act As Growth Stimulant

URBANA--Just about any disease worth its salt today claims to be caused by some fancy bacteria, virus or fungus with a name you can't pronounce.

Home gardeners and farmers will testify to that.

For example, bacterial wilt on tomatoes is caused by a little microscopic plant with the big name of Pseudomonas solanacearum, and a tiny fungus going under the name of Stemphylium solani causes gray leaf spot on tomatoes.

But University of Illinois plant pathologists say microorganisms are far from being all bad. In fact, most farmers inoculate legumes, such as clover, with nitrogen-fixing bacteria to get more efficient production.

The bacteria live in clover roots and convert nitrogen into a usable form for the plants. Not all soils contain these bacteria. Therefore, farmers put these microorganisms on the seed before planting to make sure there are enough bacteria to go around.

Now scientists find that plants inoculated with a mycorrhizal fungus grow faster and larger than those not inoculated. Last year in University greenhouse studies, corn inoculated with a mycorrhizal fungus grew much better than uninoculated corn. Onions, red clover and strawberries also grew better.

-more-



"The experiments were conducted in poor soil, however, and we don't know whether we'll get the same increase in fertile soil," U.of I. plant pathologist J. W. Gerdemann said.

"This group of fungi are difficult to study. We need to improve our methods before we can be sure that the fungi will act as a growth promoter all the time," Gerdemann explained.

Gerdemann is on the U. of I. Agronomy Day program on June 28. About 1,300 persons are expected to visit the Department of Agronomy experimental fields and the College of Agriculture campus on that day.

-30-

EEW:mfb  
6/15/61

The experiments were conducted in two parts, but we  
did not know whether we'll get the same results in the first part. The  
ent pathologist at W. Robinson said

"This group of fungi are difficult to study. We need to  
know the methods before we can be sure that the fungi will not be a  
with respect to the first, Robinson explained.

Robinson is on leave at the University of Iowa. Dr.  
of 1,500 persons are expected to visit the Department of Agronomy  
Department of Agriculture and the Office of Agricultural Research on this day.

Wm. H.  
12/21

Nitrogen Takes Many Forms

URBANA--Finding the soil's ability to supply nitrogen to plants is not an easy job, explain University of Illinois soil scientists.

Nitrogen takes various forms in the soil, according to agronomists F. J. Stevenson and R. S. Adams. They will be on hand to talk with Agronomy Day visitors at the University's South Farm on June 28.

For years soil scientists assumed that the only mineral forms of nitrogen in soil were exchangeable ammonium ions on surfaces of clay minerals, nitrate and nitrite.

Recently agronomists found fixed ammonium in Illinois soils. It was locked in the skeletal framework of clay molecules. Unlike the other forms, these are only slightly available to plants.

The deeper down the agronomists went, the greater the proportion of nitrogen they found in fixed ammonium form. The nitrogen in the plow layer, however, is mostly in humus.

Humus resists breakdown by microorganisms. Scientists find that it combines with such metals as iron, aluminum and calcium. Other humus is absorbed by the clay particles.

Many nitrogenous organic compounds are readily decomposed by microorganisms. This nitrogen is available to plants but also leaches easily. Metal-humus and clay-humus are nature's way of conserving humus nitrogen.

Most Illinois soils need nitrogen fertilizer to produce high yields. To use commercial nitrogen most efficiently, farmers need to know how much nitrogen will be available from soil forms during the growing season.

The scientists hope their studies will lead to a method for estimating the nitrogen-supplying power of the soil. So far they find that they must consider not only kinds and amounts of the nitrogen forms, but also ways in which these forms are combined with the mineral particles.

Report of the Committee on the Study of the Nitrogen Problem

THE NITROGEN PROBLEM

It is not an easy job, especially in the case of nitrogen, to

25

without taking various forms in the soil, according to the

of J. I. Stevenson and W. S. Adams. They will be used to

to determine the nitrogen content of the soil on the 25

for years soil scientists assumed that the only mineral

nitrogen in soil was ammoniacal nitrogen and on the basis of this

error, nitrate and nitrite.

Recently, however, it has been shown that nitrate and nitrite

was looked in the chemical literature of clay minerals. Certain

of forms, these are only slightly available to plants

The general view of the nitrogen problem, and especially the

of nitrogen they found in their soil samples. The nitrogen in the

layer, however, is mostly in forms

These results are shown by the following table. It is combined with such results as from aluminum and calcium. Other  
is associated with the clay particles.

Many nitrogenous organic compounds are readily decomposed by  
organisms. This nitrogen is available to plants but is lost  
by the action of bacteria and fungi. The nitrogen in the soil  
is nitrogen.

Most nitrogenous organic compounds are readily decomposed by  
organisms. This nitrogen is available to plants but is lost  
by the action of bacteria and fungi. The nitrogen in the soil  
is nitrogen.

The scientists who first studied the soil found that the  
nitrogenous organic compounds were not available to plants  
and that the nitrogen in the soil was mostly in forms  
which were not available to plants. The nitrogen in the soil  
is nitrogen.

U. Of I. Specialist Reports  
On Progress Of Home Gardens

URBANA--Illinois' many home vegetable gardens are now growing rapidly in June's warm weather, observes Joe Vandemark, University of Illinois vegetable crops specialist.

Home gardeners may have noticed that some tomato blossoms have dropped from the first clusters. But tomatoes are setting now, and growers should apply fungicides to control plant leaf diseases. Vandemark recommends using maneb or zineb at 7- to 10-day intervals.

In south-central Illinois, tomato plants infected with both common mosaic and cucumber mosaic have been spotted. Those affected in early stages of growth may be stunted and have mottled leaves.

The most pronounced symptom of cucumber mosaic is a "shoe-string" appearance of leaves.

Gardeners spread this virus disease of plants by touching healthy plants after handling infected plants. This happens especially during pruning, tying or even cultivating. Aphids also transmit the virus and therefore should be controlled.

Vandemark advises removing infected plants and destroying them so that the disease can't spread to nearby healthy plants.

of I. glaberrima  
varieties of rice

CRABAPPLE-ILLINOIS, very low resistant varieties are not known

likely to have been introduced from the Philippines, especially to

various vegetable crops associated.

Some authorities may have noticed that some small, bushy

we dropped from the first cluster. But sometimes see several more and

others should apply principles to control plant leaf damage. The main

control method is to spray at 7- to 10-day intervals.

In south-central Illinois, tomato plants infested with eggs

from adults and pupae were not seen. These appeared in

at stages of growth up to 10-15 cm and have not been reported

The most successful system of control is to spray

at intervals of 7 days.

Growers should also be advised to spray at intervals

every 7 days (not longer) during season. This system especially

in Illinois, 1954, or elsewhere. Aside from treatment with

and the other methods are possible.

When the above control methods are used and the results are

that the disease can be kept to a very low level.

1954  
1955

U. Of I. To Host First "ABC" Clinic

URBANA--An "Alert Breeders Clinic," designed to give fundamental information in the proper feeding, fitting, showing and selling of beef cattle, will be presented Sunday, June 25, at the University of Illinois.

The Illinois Shorthorn Breeders Association is sponsoring the clinic. However, anyone may attend.

A sparkling array of top cattlemen from throughout the state, as well as University animal scientists, headline the program. The program consists of four panel discussions on feeding, fitting, showing and selling. Each panel has several speakers who will discuss topics pertaining to the panel subject.

The feeding panel, for example, includes Harry Russell and W. W. Albert of the U. of I. They'll discuss "Feeding Breeding Stock" and "New Ideas in Feeding." Kenny Reynolds, Hopkins Stock Farm, Granville, will discuss "Feeding Show and Sale Cattle."

The fitting panel features Steve Land, Ridgefarm; Sam Down, Wyoming; George Innes, Galesburg; and Malcolm Tucker, Chrisman. They'll discuss breaking calves to lead and stand, equipment needed for foot trimming and preparation for showing.

The showing panel will feature talks on "Stalls and Bedding," by Jerry Taylor, Prairie City, and "Fundamentals, Etiquette and Procedure," by Les Mathers, Mason City.

The selling panel will feature talks on personal selling, auction selling and local association selling.

The program starts at 1 p.m. in the Stock Pavilion.

THE UNIVERSITY OF CHICAGO

...the program will be presented Sunday, June 15, at the University of Chicago...

The Illinois State Board of Education is sponsoring the...

...a special array of top scientists from throughout the world...

...well as University of Chicago scientists, heading the program. The...

...an overview of the panel discussion on medical history, medicine and...

...time. Each panel has several speakers who will discuss topics...

...related to the panel subject.

The leading panel, for example, includes Harry Kowalski and...

W. Albert of the U. of I. They'll discuss "Leading Medical Topics..."

"New Ideas in Medicine." Harry Kowalski, M.D., M.P.H., is...

...will discuss "Leading Topics and the Future."

The leading panel features Steve Land, M.D., M.P.H., and...

...George Jones, M.D., M.P.H., and Milton Toker, M.D., M.P.H.,...

...paneling covers the lead and grand equipment needed for...

...leading and preparation for research.

The leading panel will feature talks on "Health and Medicine,"...

...Mary Powell, M.D., M.P.H., and "Microbiology, Epidemiology and..."

...led by Ben Voth, M.D., M.P.H.,...

The leading panel will feature talks on research relating...

...panel and local association setting.

The program starts at 8 p.m. in the South Pavilion.

U. Of I. Staff Members Featured  
On Farm Materials Handling Days

URBANA--Two University of Illinois staff members are featured on the program for the 1961 Farm Materials Handling Days June 28-29 at Exposition Gardens, Peoria.

Velmar W. Davis, USDA agricultural economist at the University, will speak at 8 p.m. June 28 on the costs of different systems for harvesting, storing and drying field crops.

Frank W. Andrew, U. of I. agricultural engineer, will discuss "Pushbuttons and Controls for Profit and Convenience" at 2 p.m. on June 29.

Along with the speaking program, about 75 exhibitors of labor-saving power equipment will display their products. These will include an automated fence-builder, automatic unloading and feeding equipment, milk handling systems, grain drying and storage facilities, control systems, farm feed mills and a variety of other farmstead mechanization equipment.

Exhibits are open from 10 a.m. to 10 p.m. each day. There is no admission charge, and free parking space is provided.

Farm Materials Handling Days are sponsored by Central Illinois Light Company, Illinois Retail Farm Equipment Dealers Association, Illinois Valley Farmer and WMBD in cooperation with the University of Illinois Agricultural Extension Service.

U.S. AGRICULTURAL EXTENSION SERVICE  
FOR IMMEDIATE RELEASE

U.S. AGRICULTURAL EXTENSION SERVICE  
The program for the 1961 Farm Machinery Handling Days June 28-29 at  
Purdue University, West Lafayette, Indiana

Valerie M. Boyer, U.S. Agricultural Extension Specialist at the University  
It opens at 9 p.m. June 28 in the main ballroom of the University  
Hotel, dining and banquet facilities.

Frank W. Anderson, U.S. Agricultural Extension Specialist, will discuss  
"Machinery and Controls for Tractor and Conventional" at 7 p.m. on  
June 29.

Along with the speaking program, there will be exhibits of  
new farm equipment with dealers, their products. There will be  
exhibits of farm-child, safety, accident and testing equipment.

In addition, the system of grain drying and storage facilities, control  
systems, farm feed mills and a variety of other farm-related activities  
will be presented.

Exhibits are open from 10 a.m. to 5 p.m. each day. There is  
admission charge, and free parking space is provided.

The Machinery Handling Days are sponsored by Central Illinois  
Farm Machinery Association, Illinois Retail Farm Machinery Dealers Association, Illi-  
nois Valley Farmer and Ranch in cooperation with the University of Illi-

U.S. AGRICULTURAL EXTENSION SERVICE

Illinois Vo-Ag Teachers  
Elect Officers; Honor Members

URBANA--Jesse Keyser, vocational agriculture teacher from Lawrenceville, was elected president of the Illinois Association of Vocational Agriculture Teachers at their annual meeting on the University of Illinois campus June 13-15.

Elected vice-president was George Irvin, Tonica. Joe Berger, Charleston, was re-elected secretary-treasurer.

During the meeting, the members also honored the following men for having served vocational agriculture for 40 years: T. W. Clarida, Centralia; L. T. Clark, Olney; J. E. Hill, Springfield; and Walter Baysinger, Streator.

Honored for having served 35 years were O. K. Loomis, Anna; Joseph C. Murphy, Carpentersville; J. A. Twardock, Champaign; F. H. Van Dyke, Dwight; Carl C. Lewis, Hampshire; R. D. Eiler, Highland; O. O. Mitchell, Kansas; L. N. Patton, Momence; N. J. Smith, Monticello; William Stumm, Pleasant Plains; R. E. Wehner, Rochelle; and Melvin Henderson, University of Illinois Vocational Agriculture Service, Urbana.

These 35- and 40-year men each received gold plates for the desk pen sets they received after serving 25 years.

Men honored for having served 30 years included E. E. Mayhew, Chicago Heights; E. J. Thompson, Harrisburg; and Burl A. Hocking, Robinson. They each received an engraved watch from the Sears-Roebuck Foundation.

The 25-year men, who received desk pen sets, included Ray Dunn, Galesburg; L. E. Saddoris, Hinckley; C. J. Kuster, Normal; Roy Hefty, Orangeville; H. M. Strubinger, Springfield; and George Walker, St. Elmo.

1950-1951  
1950-1951

The following members were elected to the Board of Directors for the year 1950-1951: ...

During the meeting, the members discussed the following matters: ...

The following members were elected to the Board of Directors for the year 1950-1951: ...

The following members were elected to the Board of Directors for the year 1950-1951: ...

The following members were elected to the Board of Directors for the year 1950-1951: ...

The following members were elected to the Board of Directors for the year 1950-1951: ...

The following members were elected to the Board of Directors for the year 1950-1951: ...



FOR IMMEDIATE RELEASE

## Battle Against Weeds Benefits All

URBANA--With an arsenal of machines, herbicides and flame-throwing cultivators, today's agricultural research workers are waging a successful war against troublesome, costly and unsightly weeds. And the battle originally aimed to help farmers has become a benefit to home owners, gardeners and the general public as well.

Weed research was first designed to help a farmer kill weeds and lower his crop production costs. But, as a result of this work, home owners no longer need to face a lawn overgrown with dandelions, plantain, buckhorn, crabgrass and many other troublesome weeds. They can destroy them with weed-killing chemicals called herbicides.

At the same time, railroads, utility companies and highway departments can quickly dispose of underbrush and troublesome weeds along their right-of-ways. These groups have reduced or eliminated expensive handcutting or mowing, thanks to the modern weed control research.

The research has also aided health and safety. The danger from dreaded, itching poison ivy blisters can be eliminated. New herbicides can completely destroy this dangerous weed along roadsides, in public parks or wherever it thrives.

Motorists benefit from more effective weed control along highways through herbicide use. Better vision and a clear place to stop along the road mean safer and more pleasant driving.

-more-



Consumers also gain from new weed control methods. The abundant supplies of high-quality fruits and vegetables now available would often be impossible without the effective weed control made possible by scientific research.

Scientists scored their first major breakthrough in modern weed control when they discovered 2,4-D soon after World War II. This wonder chemical killed many broadleaf weeds without harming corn, oats, wheat or other grasses. Such troublesome weeds as field bindweed and smartweed curled up and died when sprayed with the 2,4-D solution.

Scientists soon added another herbicide, 2,4,5-T, to their arsenal of effective weapons. When mixed with 2,4-D, it helps to kill certain weeds more effectively. It also kills woody plants and brush.

Home owners, highway officials, railroads and utility companies, along with farmers, soon put these new chemicals to use.

But grass-type weeds still remained unharmed by these chemicals and continued to be as much nuisance as ever. So scientists, like a determined group of law enforcement officers, sought new means to bring these plant pests under control.

Following the success with 2,4-D, chemical companies and agricultural experiment stations teamed up to develop and test more new compounds in a search for effective and practical herbicides.

At the University of Illinois, crop scientist Fred Slife began testing weed-killing herbicides in 1946. In the past 15 years he has tested about 500 different compounds to appraise their value in weed control.

Much of the work in recent years centers on the pre-emergence herbicides. Scientists apply these materials to the soil before the

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crop is planted. If successful, the chemicals let the planted crop grow but kill the weeds as they germinate.

In his work, Slife has found some effective pre-emergence herbicides for controlling grassy weeds in corn, soybeans and lawns. Other materials have killed the crop as well as the weeds. Sometimes a herbicide leaves an undesirable residue in the soil and harms crops grown the next year.

A research worker must check all of these things before he recommends a herbicide for general public use. He can also spot dangers when herbicides are not used properly. He can help the manufacturer provide directions for safe use and issue warnings of what may happen from improper use.

After scientists find out that herbicides will kill weeds, they are not always sure that a farmer can profitably afford to use them on large crop acreages. To answer this question, Ellery Knake has completed four years of tests at the University of Illinois. He carefully counted out the foxtail stands in various corn and soybean plots. On one plot he removed all the weeds to give corn and soybeans every chance to develop without weed competition.

Knake's work clearly convicts giant foxtail and pigweed as thieves in every farmer's corn and soybean fields. One giant foxtail per inch in a corn row robs a farmer of about 15 bushels of corn per acre. It also cuts soybean yields by 6 1/2 bushels. The natural stands of foxtail reduced corn yields by nearly 23 bushels an acre and soybeans by 11 bushels. Pigweed also steals enough moisture and plant nutrients from the soil to cut crop yields as much as giant foxtail does.

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On the other hand... it is shown... it is shown... it is shown... it is shown...

A reaction... it is shown... it is shown... it is shown... it is shown...

After... it is shown... it is shown... it is shown... it is shown...

It is shown... it is shown... it is shown... it is shown... it is shown...

It is shown... it is shown... it is shown... it is shown... it is shown...

The U. of I. scientists are continuing their work to determine how serious weed losses really are. They are also carrying out more herbicide weapon tests.

Slife is testing some new pre-emergence chemicals in liquid and granular form on corn and soybean plots. So far the granules work about the same as the liquids, but many farmers find them easier to handle and apply.

He is also watching how some other herbicides affect crabgrass on turf plots. Weeds in parks, lawns, cemeteries and golf courses are a major nuisance.

Knake is testing the flame-killing method on weeds in corn and soybeans. This technique has worked successfully on the more brittle cotton plant. Will corn and soybeans survive short periods of intense heat while the weeds burn up? Research will soon provide the answer.

In the laboratory Slife is working with J. B. Hanson, a plant physiologist, to determine how herbicides work to kill plants. They have tracked the movement of herbicides through the plants with radioactive isotopes. They hope to discover what scientists still do not know--just how does a herbicide kill the plant? The answer could bring new advances in effective weed control.

Fighting weeds has become a recognized profession among research workers. In 1955, they organized the Weed Society of America. The group comprises about 1,200 research workers in agricultural experiment station and industrial research departments, agricultural extension workers and others who are devoting their efforts to killing weeds.

Workers at the University of Illinois will make a public report on their weed research activities on June 28. During the Agronomy Day program, they will display the corn and soybean plots where they are testing new herbicides not yet available to the general public.

Weeds will probably be around for a long time. But with the many proven methods of destruction developed by research scientists, they can only live in constant fear of quick and complete destruction.

The 10-15% of the population that is...  
...the world's food supply...  
...the world's food supply...

It is also...  
...the world's food supply...  
...the world's food supply...

In the laboratory...  
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Study Fertilizer Use on Soybeans

URBANA--University of Illinois agronomists are testing soybean varieties for differences in yields with high levels of fertilizer.

In greenhouse experiments, varieties did show different responses to equally high amounts of fertilizer.

Last year major differences among varieties were not found, however, in limited field experiments at the University. Visitors will have an opportunity to question agronomists L. T. Kurtz and C. E. Fulcher about their fertilization studies at the U. of I. South Farm on Agronomy Day June 28, 1961.

Soybeans have the reputation of responding only slightly, or not at all, to fertilizer. While this belief may not be entirely correct, soil test calibration curves are flatter for soybeans than for such crops as wheat at moderate levels of soil fertility, the agronomists say.

At low soil fertility levels, higher yields can be expected from direct applications of plant food. For example, when soil tests for potassium are low, yields will usually double with proper application of potash fertilizers. When the  $P_1$  test for soil phosphorus is low, yields are one-third larger from use of phosphate fertilizer if other nutrients are adequate, Kurtz reports.



Newest Foraging Equipment On Display.  
During U. Of I. Agronomy Day

URBANA--Agronomists and agricultural engineers are rounding up some of the industry's newest and latest foraging machinery for the University of Illinois Agronomy Day June 28.

About \$35,000 worth of the most modern foraging equipment is slated to be on hand for farmers to review after touring the department of agronomy experimental fields on the University's South Farm.

Machines for large and small forage programs will be displayed, according to Wendell Bowers, farm machinery specialist.

Some of the modern equipment to be shown are a self-propelled windrower and conditioner, a hay wafering machine, a baler with an ejector and a utility flail-type forage chopper.

Eight of the nation's farm equipment manufacturers are co-operating with the University of Illinois in displaying the equipment during Agronomy Day.

UNITED STATES GOVERNMENT  
OFFICE OF EDUCATION

1954-55  
 The University of Chicago  
 Department of Education  
 Chicago, Illinois

Report of the  
 Committee on  
 the  
 Study of  
 the  
 Educational  
 System  
 of the  
 State of  
 Illinois

Submitted to the  
 Board of  
 Education  
 of the  
 State of  
 Illinois

Chicago, Illinois  
 1954

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 1953

Face Flies Help Spread Pinkeye

URBANA--Pinkeye, an eye infection that often causes blindness in cattle, appears to be most prevalent in areas invaded by face flies, according to University of Illinois veterinarians.

Dr. J. R. Pickard says that face flies not only irritate the infected area, but also spread the disease. The flies, which have already been spotted in areas throughout Illinois, feed on excretions from infected eyes.

These excretions, or heavy watering, are one of the main signs of pinkeye. Another sign is the animal's actions. In order to protect affected eyes against sunlight, sand, dust and flies, the animal will keep its head lowered and its eyes partly or completely closed.

During a mild attack, the white portion of the eye becomes pink because of increased blood in the small blood vessels. Inflammation causes fluid in the eye to become cloudy. The eyeball appears hazy or covered with a film.

The more acute, but common, form of the disease is characterized by a small white or gray spot on the cornea, the transparent covering protecting the iris and pupil. As inflammation of the cornea progresses, chances of losing the eye or becoming permanently blind increase.

"But even if the infection doesn't reach this advanced stage," Dr. Pickard said, "it does impair sight and this makes life hazardous



for the animal. Infected animals often injure themselves, drown or are not able to find enough suitable food."

Thus severe losses in weight and production occur if pinkeye becomes established in a herd. And complete invasion of the herd is easy, as direct contact, contaminated feed or water and flies quickly spread the disease.

According to Dr. Pickard, adding vitamin A to feed during dry seasons or periods of scant pasture may help to prevent pinkeye. "Dry weather reduces the vitamin A level which builds tone and resistance in mucous membranes," he said.

Other steps he recommends for controlling pinkeye are:

1. Keep flies away from cattle. You can discourage flies from attacking infected cattle by using fly sprays and keeping cattle in darkened shelters.
2. Keep infected animals isolated from healthy animals. Also, give them separate feed and water.
3. Let infected animals graze at night. Bright sunlight irritates their eyes--another reason for keeping them in dark enclosures during the day.
4. At the first sign of pinkeye, see your veterinarian. Prompt treatment is necessary to reduce complicating infections and to prevent the disease from spreading.

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100-10000-1

Not Too Late To Treat For Crabgrass

URBANA--DSMA and AMA--these may be the two magic compounds for home owners tired of battling crabgrass.

DSMA stands for di-sodium methyl arsonate, and AMA stands for amine methyl arsonate. They are chemical compounds that can successfully control crabgrass during the summer, reports W. R. Nelson Jr., University of Illinois landscape specialist.

Several companies sell these compounds under a variety of trade names, so check the label of ingredients when buying. Follow directions on the label. As a general rule, at least three applications, a week apart, are needed for effective control.

Nelson adds that proper mowing and watering help to control crabgrass. Schedule mowing of lawns so you never cut more than 1/3 of the height, and never cut lawns shorter than 1 1/2 to 2 inches. High clipping helps to produce a dense, uniform green lawn that shades out such weeds as crabgrass.

When prolonged dry spells make watering necessary, soak the soil to a depth of six inches. Then sit back and relax for about a week before watering again. Sprinkling a little each night is harmful. It causes roots to grow close to the surface, where the soil dries out during the day, and encourages crabgrass.

THE HISTORY OF THE

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FOR IMMEDIATE RELEASE

## Records Show Higher 1960 Farm Earnings

URBANA--Illinois farmers boosted their 1960 earnings on all types of farms in northern and southern Illinois, a University of Illinois farm business record summary released this week shows. Except for southern Illinois grain farms, farm earnings in 1960 were above the 1951-60 average.

A representative group of northern Illinois grain farms achieved farm and family earnings of \$8,464. This figure was 29 percent above 1959 and the highest since 1956. U. of I. agricultural economist A. G. Mueller explains that this income recovery was due to favorable weather that resulted in high crop yields. Prices for hogs, milk and eggs also averaged higher.

Southern Illinois grain farmers achieved only a small increase in their farm and family earnings compared with 1959. Mueller points out that southern Illinois did not suffer the dry weather in 1959 that central Illinois farmers experienced.

Hog farms showed the largest recovery in all parts of the state. Hog farmers averaged \$15.24 a hundred pounds for hogs sold in 1960 compared with \$13.88 in 1959. Higher crop yields on many hog farms also helped to boost earnings.

On a group of northern Illinois dairy farms, earnings rose from \$6,587 in 1959 to \$8,719 in 1960. In southern Illinois, earnings

-more-



rose from \$7,319 to \$7,911. Dairy farm earnings in 1960 were substantially above the average for the past 10 years. Mueller points out that 10 percent higher milk prices in 1960 over 1959 helped account for these improved earnings.

On northern Illinois beef farms, the records show higher earnings due to improved crop yields, higher hog prices and lower purchase costs for feeder cattle.

Farm and family earnings include returns to the farm family for all unpaid labor, interest on invested capital and management. Changes in the value of farm inventories and value of farm products consumed are also counted as income. Landlord and tenant earnings were combined on rented farms.

The University of Illinois farm business record summary is prepared annually from the actual farm account records kept by 5,500 Illinois Farm Bureau Farm Management Service cooperators.

Mueller points out that the income changes reported by the U. S. Department of Agriculture are inconsistent with the trends reported by the farm business record summary. Preliminary USDA figures for Illinois show a 11 percent increase in realized net income and a 6 percent decrease in total net income in 1960. Accounting and estimating methods used by the USDA do not reflect the income changes experienced by individual farmers. The USDA farm income data, however, are reasonable indicators of the over-all agricultural income situation, Mueller concludes.

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amount ending

Hadley Read Named To Food For Peace Council

URBANA--Hadley Read, Extension Editor of the University of Illinois College of Agriculture, has been named to the American Food for Peace Council created by President John F. Kennedy.

The Council will hold its first National Conference in Washington, D. C., next Tuesday and Wednesday, June 27 and 28.

Read will represent the American Association of Agricultural College Editors on the Council. He is currently serving as president-elect of the Association and will take over as president in July.

The White House announcement on the establishment of the Council states that it "will provide citizen leadership for both the United States Food for Peace Program and the Freedom From Hunger Campaign of the Food and Agriculture Organization of the United Nations. The Council will advise the Nation's Food for Peace Director, George McGovern, develop public information on world hunger, and enlist support for the attack on world hunger."

Co-chairmen of the Council are author James A. Michener and Mrs. Raymond Clapper, widow of the famed World War II war correspondent. Other citizen members include Marian Anderson, Yul Brynner, Clark M. Clifford, Raymond C. Firestone, Dr. John A. Hannah, Danny Kaye, Murray D. Lincoln, Charles Taft, Carroll Streeter, and Drew Pearson. Representatives from national civic, educational, and agricultural organizations also have been named to the Council.

The first National Conference next week opens Tuesday evening with a White House reception. Conference participants on Wednesday will include Orville L. Freeman, Secretary of Agriculture; Chester Bowles, Under Secretary of State; B. R. Sen, Director-General of the Food and Agriculture Organization of the United Nations; Edward R. Murrow, Director of the U. S. Information Agency; and Norman Cousins, Editor of the Saturday Review.

THE UNIVERSITY OF CHICAGO

The Board of Trustees of the University of Chicago has the honor to acknowledge the receipt of your letter of the 15th inst. regarding the proposed merger of the University of Chicago and the University of Illinois. The Board is deeply interested in the proposed merger and is currently engaged in a study of the matter. It is the policy of the Board to act in the best interests of the University of Chicago and to take such action as may be deemed appropriate. The Board will continue to keep you advised of the progress of its study and will contact you again as soon as a decision has been reached. Very respectfully,  
 The Board of Trustees of the University of Chicago

1951

U. Of I. Plant Pathology  
Department Receives \$3,000 Grant

URBANA--The Sod Growers Association of Illinois has given the University of Illinois department of plant pathology a \$3,000 research grant for work on turf and lawn disease.

Wayne M. Bever, head, department of plant pathology, made the announcement today. M. P. Britton will direct the study starting July 1.

This is the first formal research project on diseases of grasses or turf at the University.

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FOR IMMEDIATE RELEASE

## Neat Lawns Discourage Burglars

URBANA--Vacation-bound home owners might heed this tip: Neat lawns indicate that someone is home and thereby discourage would-be burglars.

Neat lawns are also in better shape when their owners return, adds University of Illinois landscape specialist W. R. Nelson, Jr. So he makes these suggestions to families planning vacations:

1. Ask a neighbor to mow and water your lawn. Perhaps you can return the favor when he takes a vacation.
2. Edge all sidewalks, flower beds and borders.
3. Trim formal hedges. Otherwise they'll grow too much during warm, humid weather.
4. Weed the lawn and flower beds thoroughly.
5. Apply a mulch 1 or 2 inches deep in annual flower beds and 4 to 6 inches deep in shrub beds. Mulching conserves moisture and discourages weeds.
6. Pick annual flowers that are blooming. Ask someone to pick flowers during your absence.
7. If you have a vegetable garden, weed it thoroughly and give it a good watering. Ask a neighbor to harvest vegetables that mature while you're gone. He'll be happy to oblige.
8. Move potted plants inside the house to the cooler rooms. Ask someone to water them too.
9. Apply crabgrass control measures again in June.



Take Care Of That Strawberry  
Patch After Berries Are Gone

URBANA--After you've smacked your lips over the last dish of tasty strawberries from your own patch, don't turn your back and neglect the patch the rest of the summer.

Take care of the patch and it will reward you with several more productive years. If you neglect it, it may neglect you! Here's what to do, according to a University of Illinois fruit crops specialist, Bill Courter. After all berries are gone:

1. Mow off the tops of all berry plants. Use a rotary, sickle or lawn mower. Set the blade high enough to avoid damaging the crown--just remove the leaves.
2. Rake up all leaves, old straw and other debris. Burn them.
3. To prevent overcrowding, narrow the rows to 8 to 12 inches. Use a plow, roto-tiller, garden disk or hand hoe. Try to destroy all plant growth beyond the 8- to 12-inch width.
4. Remove all weeds left in the narrowed row.
5. Fertilize. Use 10-10-10 or 12-12-12. Apply 5 pounds for every 100 feet of row.
6. Water. Let a hose run slowly over the ground and soak the soil six inches deep. Water whenever the patch becomes dry later in the summer.

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7. To control weeds, apply the chemical sesone, sometimes known as crag herbicide No. 1. Use one tablespoon in one gallon of water for every 200 square feet. Remove established weeds before applying.

Allow runner plants to root as they form. Rows should increase until they are 18 to 25 inches wide. After they reach this width, remove all runner plants that form. Why? Plants that root after August 1 will not produce fruit next year.

Check the patch often for signs of insects or diseases.

The U. of I. offers three free publications that give more specific information on strawberry growing, disease and insect control. They are:

Circular 819: Strawberry Growing in Illinois.

Circular 814: Illinois Fruit Calendar for Growers of Apples, Strawberries and Peaches.

Fruit Leaflet No. 1: Strawberry Spray and Dust Guide.

You can pick up copies from the county farm adviser, your local representative of the University of Illinois. Or you can send requests to Department of Horticulture, University of Illinois, Urbana.

1. The first group of plants, consisting of 100 plants, was planted on 12/15/61. The second group of 100 plants was planted on 12/22/61. The third group of 100 plants was planted on 12/29/61.

These plants were planted in a field at the University of Illinois. The plants were spaced 10 feet apart in all directions. The plants were watered regularly.

The plants were observed daily. The plants were measured for height, stem diameter, and leaf area. The plants were also observed for any signs of disease or insect damage.

On 1/5/62, the plants were measured again. The plants were found to be growing well. The plants were also observed for any signs of disease or insect damage.

The plants were measured again on 1/12/62. The plants were found to be growing well. The plants were also observed for any signs of disease or insect damage.

12/15/61

Lameness In Sheep Not  
Always A Sign Of Foot Rot

URBANA--Veterinarians have discovered that lameness in sheep isn't always caused by foot rot, according to Dr. James Eagelman, University of Illinois veterinarian who recently attended a national foot rot convention.

"Foot rot is often confused with foot abscess and foot scald," Dr. Eagelman explained. Foot abscess forms pus in the soft tissues. Unlike foot rot, it does not separate the horn from the tissue underneath and is usually limited to one foot.

Foot scald is caused by tall pasturage or forage which irritates soft tissue between the claws. This irritation can open the way for foot rot infection.

Contrary to popular belief, foot rot infection does not cause heat or swelling, according to Dr. Eagelman. Confined to the horny portions of the foot, the infection forms a cheesy, foul-smelling material on the sole. As the disease advances, the foot becomes quite sensitive. The animal becomes lame.

The disease is transmitted by bacteria which contaminate wet soil and enter healthy sheep through damaged parts in the hoofs.

Once foot rot hits, sheep should be put into three classes to prevent transmission. Obviously infected animals should be put in Group A; lame, but uninfected animals in Group B; and healthy animals in Group C.



These three groups, according to Dr. Eageman, should not only be separated from each other, but also removed from the contaminated area for two weeks so that all harmful bacteria will die.

Before placing the sheep on uninfected ground, they should be driven through a foot bath containing a 30 percent solution of copper sulfate or 10 percent solution of formaldehyde. Each animal should stand in the solution for four minutes.

"The secret of effectively treating and controlling foot rot is to trim away all diseased tissue," Dr. Eageman said. "If the part bleeds, which it may, wait several hours before continuing since bleeding obscures the trimming area. Once the infected horny part is trimmed, the infection is easily killed by ordinary disinfectants."

If a claw must be removed, see your veterinarian, for this operation demands his skill and equipment. Also, he can help with problems of setting up a suitable foot bath.

Animals that do not respond after being treated twice will become carriers and should be sent to market, Dr. Eageman said.

Although foot rot seldom causes death, it does cut down tremendously on production and weight gain.



Winning Vo-Ag Judging Teams Announced

URBANA--Polo high school topped all other Illinois poultry judging teams in the annual state judging contest held last week at the University of Illinois, officials announced this week.

The Polo team was coached by Keith McGuire, the local vocational agriculture teacher. Team members included Bill Boddiger, Ted Stahler, and Robert Venhuizen. Fairview high school coached by C. L. Harn won the grain judging contest.

The top ten schools in dairy judging will be given an opportunity to compete for honors in the final contest at the Illinois State Fair. These schools are: Armstrong, Dixon, Durand, Kewanee, McLean, Nokomis, Normal, Oblong, Petersburg, and Toulon.

The best livestock judging team will also be selected at the State Fair from the following finalists: Champaign, Clinton, Edinburg, Findlay, Greenview, Leland, Mt. Sterling, Orion, Taylorville, and Wyoming.

CHICAGO, ILLINOIS, FEBRUARY 1951

Dear Mr. [Name]:  
I have just received your letter of the 15th and am glad to hear that you are interested in the study of the [subject]. The [subject] is a very important one and I am sure that you will find it very interesting. I have a number of books on the subject and I would be glad to lend them to you if you wish. I am sure that you will find them very helpful.

I am sure that you will find the [subject] very interesting and I am sure that you will find it very helpful. I have a number of books on the subject and I would be glad to lend them to you if you wish. I am sure that you will find them very helpful.

1951



FOR IMMEDIATE RELEASE

## Researchers Check July 4th Corn Height

URBANA--How high corn is by the 4th of July has been the subject of lengthy study at the University of Illinois.

The corn on the University's Morrow Plots is not as high as last year's, reports U. of I. agronomist A. L. Lang. And, this represents the corn picture over the state at this time. Also, Lang says that he has noticed a number of corn fields with rained out spots.

On every July 4th since 1936, corn height on the famous Morrow Plots has been measured by either Lang or the late G. H. Dungan.

Lang reflects that the corn on the Morrow Plots 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 yields. About the only thing it influences is the behavior of some people.

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6/29/61

Final Report

Final Report

Project - [Illegible]

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The purpose of this study is to [Illegible]

The study was conducted in [Illegible]

The results of the study are [Illegible]

It is recommended that [Illegible]

The study was supported by [Illegible]

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Apple Scab, Cherry Leaf Spot  
Widespread Across State

URBANA--A University of Illinois fruit crops specialist reports that apple scab and cherry leaf spot have struck many Illinois commercial and home orchards this spring.

Frank Owen explains that these two fungus diseases thrive in the cool, moist weather which the state has experienced.

Light brown or olive-colored spots on the leaves are the first signs of apple scab disease on apple trees. The foliage gradually turns yellow and drops off, weakening the tree.

Owen recommends giving infected trees a dose of fertilizer to initiate second growth and to help the tree regain its vigor. Use, if possible, a complete fertilizer in liquid form. When the first new leaves appear, begin spraying the tree at least every 7 to 10 days and continue until the infection is under control. If trees are only partially infected, spraying immediately will prevent the disease from spreading to uninfected foliage and fruit.

To make a spray, use one of the following materials in three gallons of water: (1) two tablespoons of ferbam, 70 percent wettable powder, or (2) two tablespoons of captan, 50 percent wettable powder.

The most common symptom of cherry leaf spot on cherry trees is a yellowing of infected leaves. Tiny purple spots also appear on the leaves. Leaves eventually fall off by midsummer, lowering the tree's vigor and possibly killing it.

Fortunately, cherry leaf spot is easily controlled with the proper fungicide. Use one of the following in every three gallons of water: (1) two tablespoons of captan, (2) two tablespoons of glyodin, (3) actidione--check label for amount, or (4) two tablespoons of ferbam. Spray at weekly intervals as long as new growth appears.

PLANT DISEASES  
BY H. W. HENNING

Abstract—A preliminary report on the results of the investigation of the

causes of the disease of the apple tree in California. The results of the

investigation are given in this report. The results of the investigation

show that the disease is caused by a fungus which is present in the soil

and which enters the tree through the roots.

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Veterinarian Develops  
Test For Diagnosing Vibriosis

URBANA--A test for diagnosing vibriosis, an infectious disease of the genital tract of cattle and sheep, has been developed at the University of Illinois, Dr. M. Ristic announced today.

Dr. Ristic, pathologist at the University's College of Veterinary Medicine, said the gel-diffusion test for vibriosis is being used on an experimental basis in the University's Diagnostic Laboratory.

The test, according to Dr. Ristic, requires placing blood samples of serum from cattle or sheep on a special jelly-like substance. The gelatin contains a drop of soluble material produced by Vibrio fetus, the bacterium which causes vibriosis.

When this soluble material contacts antibodies found in serum of infected animals, a reaction takes place which is visible to the naked eye. The reaction or white line does not appear if the animal is free of vibriosis.

Before Dr. Ristic's test could be developed, he had to learn the chemical and physical make-up of the organism causing vibriosis. He discovered that these microscopic invaders contain a soluble material called polysaccharide. He then isolated the material for use in the gel-diffusion test.

"Although we discovered that Vibrio fetus can form four different types of colonies, we only use one colony type for our test," Dr. Ristic said. "Physical and chemical make-up of the colonies differ and this could change the results of the test."



Since no vaccination or prophylactic measure has been developed for vibriosis, Dr. Ristic advises livestock owners to use bulls that have been examined and found healthy by a veterinarian. Semen for artificial insemination may be obtained from healthy bulls if the herd bull is diseased.

Vibriosis, characterized by delayed conception and abortion, can be transmitted several ways. According to Dr. Ristic, cattle transmit it through coitus, sheep through contaminated feed. Although people can become infected, the means of transmission is unknown.

Dr. Ristic gave this report to veterinarians attending the short course on reproductive diseases of cattle. The three day short course began July 5 at the U. of I. College of Veterinary Medicine.

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FOR IMMEDIATE RELEASE

## Economist Lists General Guides On Soybean Price Patterns

URBANA--Farmers or anyone else seldom have the detailed knowledge to predict all the changes in soybean prices, a University of Illinois agricultural economist points out in a new publication just released.

T. A. Hieronymus points out that the factors affecting soybean prices are very complex and it is difficult to set up definite rules about seasonal soybean price patterns. He does list these general observations, however, based on a study of soybean price movements since World War II:

It is difficult to overestimate the demand expansion rate for soybeans. Substantially more can be used each year at a constant price. Exports and domestic use have shown remarkable expansion in the last 10 years.

When the soybean crop is short, the price usually peaks early in the marketing year following harvest.

Oil prices are sensitive to the world supply and demand and tend to move in long cycles. Other things being equal, soybean prices move in the direction of oil prices.

Meal prices are sensitive to changes in livestock numbers, particularly hogs. Farmers have profited from holding soybeans when an increase in the spring pig crop is anticipated.



Meal consumption responds to price. High prices in the fall and winter often result in a falling price in the spring and summer. Low fall and winter prices may also be followed by rising prices in spring and summer.

Soybean prices respond to the general inflation-deflation conditions and move in the general trend with other commodity prices.

Speculative activity in both cash and futures markets by farmers and others is very important in determining the seasonal pattern of prices, Hieronymus points out. There is a tendency to put the price either too high or too low at harvest and remember only last year. This produces an every other year trend to soybean holding. So the most profitable procedure might well be to do what would have been unprofitable the year before, he concludes.

These guides are published as part of Circular 833, "When to Sell Corn, Soybeans, Oats, and Wheat." Copies may be obtained from any county farm adviser or the University of Illinois College of Agriculture, at Urbana.

best arrangements regarding the matter. The records in the State  
archives are available in a limited way to the general public.  
The State Archives are also available to the general public in  
the following manner:

Requests for information should be directed to the Illinois State  
Archives and may be made in person, by mail, or by telephone.  
Specialized assistance is available in the form of research reports  
and other materials in very important cases. The State Archives  
also maintains a list of records and documents available for sale.  
The State Archives also maintains a list of records and documents  
available for loan. The State Archives also maintains a list of  
records and documents available for reproduction.

The State Archives, Springfield, Illinois

These guides are published as part of the Illinois State Archives  
series. They are available for sale and may be ordered from the  
State Archives or the University of Illinois Library.

Committee Begins Hog  
Cholera Eradication Program

URBANA--The formation of the Illinois Hog Cholera Eradication Committee has stirred up much interest among various segments of the swine industry, Dr. P. H. Kramer told state and federal veterinarians attending the conference on "Recent Advances in Animal Disease Control." The two-day conference, organized by University of Illinois College of Veterinary Medicine, began today at Allerton Park in Monticello.

"The industry is ahead of our regulatory agencies at this time. This is a healthy sign," Dr. Kramer, assistant inspector of the Illinois Animal Disease Eradication Division, said. "Progress made in an eradication program is directly proportional to the degree of interest, cooperation and assistance of the industry's leadership."

With the aid of representatives of farm organizations, the swine industry, veterinary associations, the U. of I., and State-Federal regulatory agencies, the Hog Cholera Eradication Committee recently appointed three sub-committees. The sub-committees are: Legislative, W. B. Peterson of the Illinois Agriculture Association, chairman; Research, Dr. J. D. Ray of the Affiliated Laboratories, chairman; Education, Dr. J. R. Pickard, extension veterinarian of the U. of I. College of Veterinary Medicine, chairman.

Dr. Kramer reports that the Eradication Committee prepared a resolution urging the passage of legislation for a national hog cholera eradication program. The committee feels this program would save hog producers millions of dollars annually by reducing the disease. Also, exportation of pork would increase since we would then be able to meet health requirements of importing foreign countries.

To eradicate hog cholera in Illinois, the committee plans to work with the National Hog Cholera Committee and enlist the aid of veterinarians in making reports. They hope to develop a diagnostic test, improve vaccines and do more detailed studies of the hog cholera virus.



COLLEGE OF AGRICULTURE and the  
DIVISION OF UNIVERSITY EXTENSION

FOR IMMEDIATE RELEASE

U. Of I. Hosts Farm Research Conference

URBANA--About 400 farm cooperative representatives from across the nation will gather at the University of Illinois, July 12-14 to hear research scientists report the latest developments in feeds, fertilizers, seeds, chemicals and petroleum product use.

This will be the 13th annual research conference of the American Farm Research Association, a research organization jointly sponsored, financed and managed by the American Farm Bureau Federation and a number of state-wide cooperative farm supply companies.

The conference opens Wednesday afternoon on the general theme, "Manpower for Agriculture." Dean Louis B. Howard of the College of Agriculture will moderate a panel comprised of Associate Dean Karl Gardner; O. B. Ross, head of the department of animal science; and Warren K. Wessels, assistant to the dean.

During the three day conference in the Illini Union Building, special sessions on feed, fertilizer, petroleum, seed and farm chemicals as well as general sessions are scheduled. Agricultural research workers from the University of Illinois, other state agricultural experiment stations and cooperative organizations will speak. Special programs are also planned for the ladies attending.

DEPARTMENT OF CHEMISTRY

For analysis please

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FOR IMMEDIATE RELEASE

## Record Number Of 4-H'ers Compete In State Judging Contest

URBANA--A record 944 4-H'ers from 85 Illinois counties took part in the State 4-H Judging Contest at the University of Illinois July 6. They judged in dairy, poultry, livestock and vegetable divisions--trying for "A" ratings in both individual and county team competition.

County team "A" ratings in dairy judging went to Crawford, Henry, LaSalle, Lee, McLean, Macon, Montgomery, Moultrie, Ogle, Peoria, Sangamon, Stark, Tazewell and Winnebago counties.

Counties receiving "A" ratings in livestock judging were Bureau, Champaign, Coles, DeWitt, Henry, Knox, LaSalle, Mason, Mercer, Morgan, Moultrie, Peoria, Piatt, Richland, Shelby and Warren.

Four counties, Shelby, Henry, McHenry and Livingston, took "A" ratings in poultry. Sangamon and Will county teams nailed down "A" ratings in vegetable judging.

The state contest was a stepping-stone to national contests to be held later this year. Individuals who earned "A" ratings will now enter special invitational contests to compete for a berth on Illinois teams in national competition.

Next stop for the "A"-rated dairy and livestock judging contestants is an invitational contest at the Illinois State Fair in

-more-



Springfield. At that time four 4-H'ers from each team will be selected to represent Illinois in national competition.

The dairy team will compete in the National 4-H Dairy Judging Contest in Waterloo, Iowa, Oct. 2. Livestock winners will represent Illinois in the National 4-H Livestock Judging Contest on Nov. 24 at the International Livestock Exposition in Chicago.

After special invitational contests, poultry winners will compete in a national contest in Chicago Nov. 26, and vegetable winners will judge at the 26th Annual Convention of the National Junior Vegetable Growers of America in Detroit, Michigan, Dec. 6.

In the state contest, ribbons were awarded to individuals placing in Classes "A" and "B." Medals will be awarded to members taking part in national contests later this year.

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UI Engineers Study Tractor Air Cleaners

URBANA--University of Illinois agricultural engineers are working with air cleaner companies to develop improved types of dry air cleaners that may eventually be standard equipment on farm tractors, a U. of I. engineer reported today.

Speaking before the American Farm Research Association meeting at the University of Illinois, engineer J. A. Weber said the air cleaner work resulted from tests which showed that many tractors could not produce full power because oil bath cleaners became clogged with dirt and chaff.

Weber said that because dry cleaners are used on automobiles and are easy to service, they looked like a good replacement for the messy oil bath cleaners.

However, research with dry cleaners on 28 tractors proved that most of the automobile types were just not good enough for farm tractor work.

Weber reported that more rugged and efficient dry cleaners are now being used successfully on large crawler tractors. However, these cleaners are too large and costly for normal farm tractor use.

U. of I. engineers and air cleaner companies hope to develop a tractor air cleaner that fits somewhere between the light-duty type and the rugged type.

Weber said that tractor valve trouble also is under study. Nine 125-hour laboratory engine tests have been made to point out things

REPORT ON THE PROGRESS OF THE WORK

During the past year the work has been directed towards the study of the properties of the various types of...

It has been found that the results obtained from the various experiments are in general in agreement with the theoretical predictions...

The following table gives a summary of the results obtained from the various experiments during the past year...

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mechanics might do during a valve overhaul that could cause intake valve failure.

The present U. of I. tractor tests are a result of a survey made in 1955 in which tractors were inspected for good or poor maintenance practices. This study showed that improper valve adjustment, dirty crankcase breathers and air cleaners, low tire pressure and pitted ignition points are among the most common examples of poor tractor maintenance on Illinois farms.

Weber said the Illinois Farm Supply Company, sponsor of the tractor maintenance study, has recently renewed the project for another three-year period.



Wheat Export Program Unfair  
To Soft Wheat Growers

URBANA--The government wheat export program is causing lower prices for Illinois soft wheat than for hard wheat, a University of Illinois agricultural economist pointed out this week.

L. F. Stice said that the present government programs are contradictory in the treatment of midwest wheats. Hard and soft wheats are treated alike in the acreage allotment and price support programs and in the subsidy payment on exports. But in the Public Law 480 export program for barter or foreign currencies, soft red winter and hard red winter wheat are treated as separate commodities.

Illinois hard wheat growers are now receiving about 10 cents a bushel more than soft wheat growers in central and southern Illinois markets. Yet Illinois soft wheat produces high-quality cake and pastry flours. Illinois hard wheat produces inferior bread flour compared with the hard wheats produced in the great plains areas of Kansas and Oklahoma.

Supplies would also suggest that soft red wheat should bring a higher price. There is no surplus of soft red winter wheat. On June 30 only about 13 million bushels remained from last year's crop, less than a month's supply. At the same time the hard wheat stockpile was about 1,118 million bushels, a 19-month supply at the high rate of use during the past year.

If supplies and use of both soft and hard wheat were in balance with unrestricted production, soft wheat prices would tend to be equal to or above those of hard wheat in Illinois, Stice believes.



Also, if both were treated alike under the Public Law 480 export program, Illinois soft wheat would sell for as much as or more than hard wheat. Because Public Law 480 restricts exports to surplus agricultural commodities, the USDA restricts soft red winter wheat exports under this program.

The lower soft wheat price reduces income of soft wheat growers and encourages them to shift to hard wheat, even though the supply is in surplus and hard wheat is a lower quality product in Illinois.

To remedy this situation, Stice suggests several choices:

(1) the government could authorize more exports of soft wheat so that soft and hard wheat prices would be equal; (2) farmers could put more soft wheat under the support loan to force soft wheat prices up at harvest; (3) farmers could shift to hard wheat production.

The simplest and least damaging alternative is to increase the export allocations of soft wheat, Stice concludes.



New Designs For Future Corn

URBANA--You may not recognize the future corn, D. E. Alexander, University of Illinois corn breeding specialist, told members of the American Farm Research Association meeting here today.

Alexander cautioned that he was talking about ideas still on the drawing boards and some others that haven't reached even that stage.

Years of research went into today's hybrids. Alexander emphasized that many of the changes he was suggesting might also take many years.

Here are some new hybrids farmers can expect to grow in their fields within 15 or 20 years, according to Alexander:

Hi-Density Hybrids: These new types, with as many as 24,000 plants per acre, outyield ordinary corn when there is plenty of water and high fertility. They resist damage at high populations. Under average conditions, researchers get yields equaling those produced by ordinary corn at the usual stand of 16,000 plants per acre.

High-Oil Hybrids: High-oil versions of modern hybrids are being tested throughout the state. Oil is 2 1/4 times as high in energy as starch is. A high-energy feed can mean more livestock gain produced from each bushel of corn. If high-oil corn passes this season's tests, scientists will produce hybrids that yield 7 to 8 percent oil and have the desirable traits of today's hybrids.

Corn-Teosinte Hybrids: Corn breeders call the result of an intercross of corn with a wild relative, teosinte, a corn-teosinte hybrid. Some combinations are multiple-eared. While the ear is



smaller than that of ordinary corn, corn-teosinte ears may contain more protein. Also, this cross seems more drought resistant.

Stover for Cattle Feed: Corn stover may be the main reason for more corn belt breeding herds. The nutritive value of one acre of corn stover, yielding about 100 bushels, is enough to feed one cow unit for one year. It seems likely that machinery to cut and chop stover and separate the corn kernels will soon be designed for the corn belt.

Here are some of Alexander's long-range thoughts about the corn we're likely to grow in the distant future:

Pure-Breeding Hybrids: There is a distant promise that some corn will show little loss of vigor if seed is saved from farmers' fields. The new hybrids are tetraploid instead of the diploid types we grow today. That is to say, the new plants have 40 chromosomes instead of the usual 20. Chromosomes carry genes that determine the characteristics of a variety.

Ultimately, Alexander believes, pure-breeding hybrids will be produced. However, he notes that as yet researchers have not produced corn hybrids with 40 chromosomes that equal traditional corn's agronomic value.

New Species: By putting viruses to work, corn breeders may find that they have an entirely new breeding tool. Plant and animal cells are capable of acquiring genetic material by a kind of "infection" quite separate from the normal sexual process.

This kind of breeding work may some day lead to entirely new species. For example, scientists may create a corn and sorghum hybrid. This species would combine the advantages of sorghum and corn.

Of course, Alexander said, these are just two of what you might call a corn breeder's pipe dreams. But the possibilities are there, and we may find great changes in the future corn belt crops.

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Illinois Establishes Hog  
Cholera Eradication Committee

URBANA--A University of Illinois livestock specialist reports that Illinois has formed a Hog Cholera Eradication Committee to speed up the elimination of this disease from the state.

Harry G. Russell adds that the committee will also support national programs to eliminate the disease. It has already sent a resolution supporting the hog cholera eradication legislation to U. S. congressmen sponsoring the bill.

Serving as committee chairman is George Brauer, Oakford. He is president of the Illinois Swine Herd Improvement Association and a commercial hog producer.

Russell, secretary of the committee, reports that the committee so far has formed three subcommittees: (1) legislative, (2) education and (3) research. These subcommittees have already met and mapped their plans of action.

Among their proposals are (1) to make hog cholera reportable through veterinarians on a voluntary basis, (2) to develop a diagnostic test for hog cholera and (3) to improve vaccines.

The committee will meet again in Springfield on July 28 to report on action already taken and to plan further action.

State Department  
Washington, D.C.

Secretary of State

Department of State

Washington, D.C.

July 2, 1954

Dear Mr. Secretary:

I am pleased to hear that you are planning to visit the United States in the near future.

I am sure that your visit will be most profitable and enjoyable.

I am sure that you will find the United States a most interesting and beautiful country.

I am sure that you will find the American people most friendly and hospitable.

I am sure that you will find the American way of life most interesting and enjoyable.

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1954  
July 2



FOR IMMEDIATE RELEASE

## Only 10 Percent Of U. Of I. Ag Graduates Farming

URBANA--Only 10 percent of the June 1961 graduates from the University of Illinois College of Agriculture returned to the farm, reports Warren Wessels, assistant to the dean.

By far the largest number of graduates, 45 percent, are taking graduate work or have entered the military service. Nine percent are working in agricultural industries as sales and service men, fieldmen and merchandisers.

Another 14 percent are working as vocational agriculture teachers or assistant farm advisers. Twelve percent have jobs with the U. S. Forest Service, U.S.D.A., Illinois Division of Highways, U. of I., Illinois Crop Improvement Association and New York Conservation Department.

As of June 20, only 10 percent of the graduating class were undecided about jobs.

What about salaries for the June graduates? They ranged from \$4,350 to \$6,480, averaging \$5,200.

Wessels stresses the fact that many job opportunities await the agricultural college graduate. But unfortunately too many graduates do not seriously consider employment until graduation nears. Then they may become panicky and grab the first job offer. This is unfortunate for both the student and the employer.

Many graduates do not "sell" themselves either. Any job-seeker must have intelligence, enthusiasm, a neat appearance, sincerity and a firm handshake.

Wessels points out that many jobs in the agricultural industries are not filled because students do not acquaint themselves with opportunities in the business phases of agriculture.



UI Tests New Fiberboard Crib Liner

URBANA--University of Illinois agricultural engineers are testing a new moisture-proof, airtight liner material that shows promise for safe high-moisture corn storage in existing corn cribs and bins.

The new liner is a heavy, waterproof fiberboard coated on each side with a layer of polyethylene film and aluminum foil. Researchers say the material is easy to cut, crease or bend to fit the interior of any crib or bin. It is held in place with nails, screws or bolts.

U. of I. researchers began testing the new fiberboard lining material in January when they lined a steel bin and two small bins in a converted ear corn crib. The corn contained 20½ percent moisture when the tests began.

Samples from the bins during the following five months showed no appreciable change in moisture content. However, a fermentation odor developed and some mold appeared on broken and cracked kernels.

Researchers say they expected molds to develop because of the corn's low moisture content. After five months, however, the corn had not lost its value as a feed grain.

U. of I. engineers plan further tests with 25 to 30 percent moisture corn to check the effectiveness of the lining material over a wider range of moisture conditions and for longer periods in storage.

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Nurserymen's Association To Meet August 1-3

URBANA--Members of the Illinois State Nurserymen's Association will gather August 1-3 at the Morton Arboretum, Lisle, for their annual meeting.

If the advance program is any indication, it should be one of the best programs ever, says Harleigh Kemmerer, University of Illinois landscape specialist and secretary of the association.

The Tuesday morning session features a tour of the Arboretum. In the afternoon, members will hear the latest developments in landscape design. Wednesday the group will tour several nurseries. And on Thursday the group will breakfast at the International Harvester plant and then visit several more area nurseries.

Kemmerer reports that complete programs are also planned for wives and children.

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Department of Chemistry

MEMORANDUM FOR THE RECORD  
DATE: 1954

TO: Mr. [Name]  
FROM: Mr. [Name]

RE: [Subject]

Enclosed are [Number] copies of [Document]

1954



FOR IMMEDIATE RELEASE

## Foreign Livestock Diseases Threaten U. S. - Dr. Meyer

URBANA--Because we live in the jet age, livestock diseases that were once limited to Africa and other faraway countries are now a potential threat to American livestock, Dr. N. L. Meyer told veterinarians attending a conference on Recent Advances in Animal Disease Control.

Dr. Meyer, Chief staff officer for Emergency Diseases in the Animal Disease Eradication Division's Washington office, spoke at the conference held last week (July 11-12) at the University of Illinois.

The chance of new livestock diseases being introduced into the U. S. is increasing because Americans are doing more world traveling and importing, Dr. Meyer said. Such diseases as African horsesickness, African swine fever, lumpy skin disease and Rift Valley fever could cripple our livestock industry.

"Once the diseases are introduced," Dr. Meyer said, "they could spread so rapidly that usual control measures, such as inspection, quarantine, immunization, disinfection and even radical slaughter programs, would be unsuccessful."

As an example of the destruction these diseases cause, Dr. Meyer described African swine fever.

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"In many parts of Africa there are now swine," he said. "But swine production is nearly impossible because of the high incidence of African swine fever.

The disease, which is nearly 100 percent fatal, has symptoms resembling those of hog cholera. But, unlike hog cholera, no vaccine has been developed for it.

African swine fever recently invaded Spain and Portugal, where over 100,000 head of swine were lost, partly because veterinarians first diagnosed the disease as hog cholera. "I shudder to think what this disease could do in the U. S.," Dr. Meyer said.

African horsesickness, which kills 90 percent of its victims, was another example. When this disease hit 10 mid-east and Mediterranean countries, it spread with such dramatic force that veterinary publications all over the world reported it.

An epidemic of African horsesickness among U. S. horses valued at 500 million dollars would cause great economic losses, Dr. Meyer told the veterinarians.

These diseases, along with lumpy skin disease, bluetongue, Rift Valley fever and Rinderpest, used to be isolated in comparatively small areas, but are now invading neighboring countries. With increased exportation of domestic livestock and zoo animals, the diseases could, if introduced into the U. S., spread rapidly, as we have many of the vectors necessary for this transmission.

Once in the U. S., the diseases would spread like wildfire because our livestock population is susceptible. Warned Dr. Meyer, "Veterinarians can no longer regard these diseases as exotic African or Asian curiosities of purely academic interest. They must familiarize themselves with these diseases if they are to properly carry out their professional responsibilities."

"It was found that African cases are now common," he said. "But the prevalence is nearly identical to that of the high incidence of African cases here."

The disease, which is usually 100 percent fatal, was reported earlier in those of dog owners. But unlike dog owners, no vaccine has been developed for it.

African cases have recently been reported from the Congo, where 70,000 cases of meningitis were reported. It is believed that the disease is being spread to other parts of the world.

Dr. J. H. Hensley said that the disease is being spread to other parts of the world. It is believed that the disease is being spread to other parts of the world.

African meningitis, which kills 30 percent of its victims, is another example. When this disease hit 10 villages and 100 people in the Congo, it spread with such rapidity that 100 African patients were taken to the hospital in the Congo.

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These diseases, along with many other diseases, including meningitis, have been reported from the Congo. It is believed that the disease is being spread to other parts of the world.

Dr. Hensley said that the disease is being spread to other parts of the world. It is believed that the disease is being spread to other parts of the world.

The African meningitis is a general disease. It is believed that the disease is being spread to other parts of the world. It is believed that the disease is being spread to other parts of the world.

Associate Dean Outlines Reasons Why  
Rural Youth Are Not Attending College

URBANA--Karl E. Gardner, associate dean of the University of Illinois College of Agriculture, points to three reasons why rural youth are lagging behind urban youth in attending college.

These reasons are (1) lack of recruitment in agriculture, (2) inadequate counseling services and (3) rising college costs and stationary farm incomes.

Gardner explains that colleges of agriculture have stepped up their recruitment programs during the past several years. But agriculture has a long way to go in matching recruiting efforts in engineering, science, commerce and other fields. Furthermore, industry aids recruitment in these other fields through eye-catching ads, radio and television programs.

Regarding high school counseling, Gardner says that few counselors have sufficient knowledge of the opportunities in agriculture. Therefore, they encourage students to study medicine, engineering, law, chemistry and other "prestige" fields.

Some small rural high schools, unfortunately, do not prepare students properly for college studies. Poor training in grammar and mathematics gives the rural graduate a disadvantage. Too, rural graduates often fear the large size and academic requirements of most universities.

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College Park, Maryland  
College Park, Maryland

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fields.

Regarding high school enrollment, Gardner says that  
students have sufficient knowledge of the opportunities in agriculture.  
Therefore, they encourage students to study medicine, engineering,  
law, medicine and other "prestigious" fields.

Some feel that high schools, unfortunately, do not prepare  
students properly for college studies. Their training is general and  
theoretical gives the total picture of the industry. The total picture  
is often lost for high school and academic requirements of high school  
students.

Gardner urges parents and school board members to take an interest in the caliber and quality of their local schools and help prepare and encourage graduates to attend college.

Like everything else, costs of attending college are rising rapidly. But Gardner firmly believes that a youngster who wants a college education can get it if he's willing to work.

Most universities and university towns have ample job opportunities for ambitious students. By disciplining himself to study in his free time, the working student shouldn't have serious trouble in maintaining a satisfactory grade-point average.

Many scholarships are also available for deserving students. Although the value of the scholarships has not kept pace with rising costs, they certainly help to ease a student's financial situation.

Gardner discussed these views at the American Farm Research Association meeting on the U. of I. campus last week.



Officials Guarding Against Foreign Diseases Entering U. S. Via Seaway

URBANA--United States and Canadian officials are rigidly enforcing shipping regulations to prevent foreign livestock diseases from penetrating North America via the St. Lawrence Seaway, Dr. E. E. Moon told veterinarians attending the Conference on Recent Advances in Animal Disease Control.

Dr. Moon represented the Animal Inspection and Quarantine division (AIQ) of the Chicago Stock Yards. The conference was held at the University of Illinois last week (July 11 and 12).

"Port inspection is the first line of defense against foreign disease," he told the conference. Because Chicago, Milwaukee and other Great Lake cities are not ports of entry for foreign animals, inspectors examine all animal byproducts. Untanned hides, wool, glue stock, horns, straw, hay, meat from certain countries or any other animal byproduct may be contaminated with infective organisms. Therefore, inspectors turn all byproducts over to AIQ for examination. No contaminated product is released.

Another part of the fight against foreign diseases deals with food and garbage aboard foreign vessels. Garbage is removed at Montreal. After ships enter the Seaway, it can only be disposed of at port incinerators. Meats that are restricted are placed under Canadian seals. Inspectors at U. S. ports periodically check the Canadian seals, which must not be broken until the vessel returns to Montreal on its outgoing trip.

U.S. DEPARTMENT OF AGRICULTURE  
BUREAU OF PLANT INDUSTRY

URBAN—United States and Canadian officials are working on  
being shipping regulations to prevent further livestock diseases from  
reaching both America and the St. Lawrence Seaway. In a report  
to veterinarians attending the Conference on Animal Diseases in 1941  
I believe correct.

Dr. Moore recommended the animal inspection and quarantine di-  
vision (AID) of the United States. The conference was held at the  
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"Port inspection is the first line of defense against foreign  
diseases," he told the conference. Because Chicago, Milwaukee and other  
port cities are not ports of entry for foreign animals, inspectors  
examine all animal products. Dairies, hatcheries, and stock farms  
now pay, near five percent, on sales of any other animal product  
to be contaminated with infectious organisms. Veterinarians  
on all products used as feed for examination. We recommended pro-  
tection of the animal.

Another part of the fight against foreign diseases is the  
and garbage aboard foreign vessels. Garbage is removed at ports  
the ships enter the country. It can only be disposed of at ports where  
means there that the restricted area placed under Canadian seals  
products of U. S. ports periodically check the Canadian seals. Some  
at not be broken until the vessel returns to port on the other side.

U. S. officials are concerned about the St. Lawrence Seaway because the country's principal agricultural area could be hit overnight. At least 17 states--those bordering the Seaway and those whose commerce flows through lake ports--are affected by the St. Lawrence Seaway, Dr. Moon stated.

Animal diseases are not the only concern of regulatory officials. The introduction of certain foreign insect pests could cause devastating damage to our crops, Dr. Moon said.

The Plant Quarantine Division is most interested in the khapra beetle, whose larvae can live as long as three years without food. When the beetle attacks whole grain or cereal products, losses range from 2 to 73 percent. In emphasizing the real danger of these insect pests, Dr. Moon said Chicago inspectors have already spotted this beetle in holds of foreign vessels.

Because increased use of the Seaway also increases the chances of introducing new insects and livestock diseases, Dr. Moon urged veterinarians to be on guard and report any suspicious livestock diseases to proper officials.

"The St. Lawrence Seaway is of great economic importance to Illinois and some 16 other states," Dr. Moon concluded, "but we must all be aware that foreign shipments do pose a constant threat from foreign animal diseases, insect pests and human diseases."

Dr. J. H. Lawrence and the St. Lawrence Society  
The country's principal agricultural crop could be all winter  
at least if states-- Iowa, Michigan, the New York and those other states  
low through Lake Erie-- are affected by the St. Lawrence Society, Dr.  
Lawrence stated.

Several diseases are not the only source of mortality and  
this. The introduction of certain foreign insects would cause  
increasing damage to our crops, Dr. Lawrence said.

The State Department Division is now interested in the kind  
of insects which have been found in three years without doubt. It  
is certain that the whole year of insect production, however, from 1914  
to 1917. In examining the rest of the year of insect pests,  
Dr. Lawrence said Chicago inspectors have already spotted this beetle in  
this of section vessels.

Recent increased use of the New York also increased the amount  
of insecticide now used and livestock diseases, Dr. Lawrence stated.  
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"The St. Lawrence Society is of great economic importance to  
Iowa and some of other states," Dr. Lawrence concluded, "and we must  
be sure that foreign inspectors do have a constant watch on insects  
which diseases, insect pests and their diseases."

1917  
11/11

School Milk Program Promotes  
Good Health, Study Shows

URBANA--Milk consumption in Illinois schools has more than doubled in the past seven years since the Special School Milk Program started, a University of Illinois study shows.

In a report just published, Robert E. Jacobson and R. W. Bartlett point out that in 1953-54 the state average for milk consumed in schools was 12.3 quarts per student per year. After five years under the Special Milk Program, the state average consumption per student has risen to 30.3 quarts.

The report also shows differences in consumption among schools. Schools with fewer than 125 students had a higher average than the larger ones. Consumption per student was highest in schools participating in both the Special Milk Program and the National School Lunch Program.

When students were charged from one to three cents for each half-pint of milk, there were no outstanding differences in consumption. But if the school milk program were not operating, students would frequently have to pay as much as 10 cents per half-pint and school milk consumption would likely suffer a major decrease, the report concludes.

The detailed report has been published as Circular 831, The School Milk Program in Illinois. Copies may be obtained from the office of any county farm adviser or directly from the College of Agriculture at Urbana.

Special Milk Program Promotes  
Good Health Study Shows

Special Milk consumption in Illinois schools has more than doubled in the past seven years since the Special School Milk Program started, a University of Illinois study shows.

In a report just published, Robert E. Jackson and R. W. Atlett point out that in 1952-54 the state average for milk consumption in schools was 13.3 quarts per student per year. After five years and the Special Milk Program, the state average consumption per student had risen to 30.3 quarts.

The report also shows differences in consumption among schools. Schools with fewer than 15 students had a higher average than larger ones. Consumption per student was highest in schools participating in both the Special Milk Program and the National School Lunch Program.

When students were charged from one to three cents for each half-pint of milk, there were no noteworthy differences in consumption. If the school milk program were not operating, students would probably have to pay as much as 10 cents per half-pint and school milk consumption would likely suffer a major decrease, the report concludes.

The detailed report has been published as "School Milk Program in Illinois: Copies may be obtained from the office of the State Director of Agriculture, University of Illinois, Urbana."

10:50 AM  
1/12/51



FOR IMMEDIATE RELEASE

## Illinois Farm Real Estate Taxes Hit New High

URBANA--Illinois farm land owners paid a new record amount in real estate taxes in 1960, a University of Illinois professor of agricultural law reported this week.

According to N. G. P. Krausz, the total farm real estate tax bill was \$123.1 million, 3.7 percent above 1959 and nearly double the 1950 figure. Illinois farm land owners pay the second highest land tax bill in the United States. Only California land owners pay more.

On the basis of preliminary estimates, Krausz figures that land taxes took 17 percent of the net farm income.

The average 1960 Illinois land tax levy of \$4.07 per acre was the highest of the corn-belt states. The average levy for all other corn-belt states was \$2.18. The U. S. average was \$1.20. Only four northeastern states had a higher per acre levy than Illinois.

High value of Illinois farmland does not account for our higher taxes, Krausz points out. When taxes are computed on the basis of \$100 full value, the Illinois tax remains the highest in the corn-belt and far above the U. S. average.

Besides the real estate tax, Illinois farmers paid an estimated \$22 million in personal property taxes in 1960. Adding personal and realty taxes together makes the per acre tax \$4.80. This average is very high considering that on some poor land in the state taxes are below \$1.00 per acre.



Public schools receive the largest portion of real estate and property tax revenues, Krausz reports. Rising school enrollment continues to create demands for new schools, additional staff and larger operating costs. Spending for roads and welfare, however, is also increasing.

More increases in real property taxes can be expected as long as the Illinois tax structure remains basically the same, Krausz believes. There has been a leveling-off trend, however, in the past two years. In 1959 and 1960, the percentage increase was not so large in Illinois as in neighboring states.

Public accountants in Illinois have been...  
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Illinois Turfgrass Field Day Set

URBANA--The second annual Illinois Turfgrass Field Day will be held at the University of Illinois Thursday, July 27.

Visitors will compare new lawn development where organic, inorganic and urea-form fertilizers were used. Also on display will be plots showing the effectiveness of pre-emergence crabgrass chemicals. These chemicals were applied at different rates and times.

Fungicide studies at the University will also be on view for those attending the Turfgrass Field Day, according to U. of I. horticulturist Harleigh Kemmerer.

The program starts about 10 a.m. with a tour of local golf courses, turf research plots on the horticulture farms and the campus lawns.

Visitors will register at the floriculture building that morning. They may also visit the U. of I. trial gardens. About 1,280 annual and bedding plant varieties are displayed there.

ANNOUNCEMENT OF THE DEPARTMENT OF THE ARMY

WASHINGTON, D. C., August 15, 1945. The Department of the Army today announced that it has authorized the release of certain information regarding the activities of the Army in the field of chemical warfare. This information is being made available to the public in order to provide a more complete picture of the work being done by the Army in this field.

The information being released is of a general nature and does not include any details of the specific work being done by the Army. It is being made available to the public in order to provide a more complete picture of the work being done by the Army in this field.

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7/15/45

Read, Guither Recognized  
By Editors' Association

URBANA--Two members of the U. of I. College of Agriculture's editorial staff were recognized today by the American Association of Agricultural College Editors at the association's annual meeting in Washington, D. C.

Extension editor Hadley Read was formally installed as president of the national organization for the coming year, and Harold Guither, assistant extension editor, received the AAACE Professional Improvement Award sponsored by the National Plant Food Institute.

Read, head of the college's editorial staff since 1947, served as president-elect of the association during the past year. As president, he will represent nearly 500 agricultural college, USDA and business editors who are members of the association. He will also have primary administrative responsibility for 15 association committees that carry on action programs in the areas of communications research, training, media services and professional improvement.

Guither, a member of the editorial staff since 1956, received the AAACE Professional Improvement Award for outstanding professional contributions to the agricultural communications field during the past two years. The award includes a \$500 grant for professional study and travel. Guither was nominated for this award by his associates in the editorial office.

A graduate of the University of Illinois in 1949, Guither served as managing editor for the Doane Agricultural Service in St. Louis from 1950 to 1956. He grew up in Bureau county and graduated from the Walnut High School. He is currently serving as coordinator of the media services division of the editorial office.

AAACE was first organized on the University of Illinois campus 45 years ago and recently established national headquarters on the campus of Michigan State University.



"Other Fellow" Theory Major  
Roadblock To Farm Safety

URBANA--This is National Farm Safety Week--a week set aside to focus attention on the needless accidents that kill and injure thousands of farm people each year.

In the entire nation, someone dies in a farm-work mishap every 45 minutes. One person is injured every 23 seconds.

Shocking as these figures are, they don't seem to impress the average farmer or his family, explains O. L. Hogsett, University of Illinois safety specialist.

Few people can visualize themselves as potential accident statistics. The attitude that "accidents happen to the other fellow" is still a major roadblock to safety on the farm.

Yet the thousands of farm families who suffered the personal and financial blow of a farm accident last year now are quick to admit that the "other fellow" theory doesn't always work out.

The Illinois Rural Safety Council estimates that, unless extra precautions are taken, accidents will cause 15,000 fatalities and 1,250,000 disabling injuries before the next Farm Safety Week rolls around.

If you think these accidents will happen to "the other fellow," remember this: To your neighbor, you are the "other fellow." An accident can happen to anyone who invites it by taking a chance.





FOR IMMEDIATE RELEASE

## Top Hog Men Reveal Ingredients For Success

URBANA--Thirty top hog producers in Ford, Livingston, Tazewell and Woodford counties have listed their feeding and management practices which spelled the difference between an average income and a high income.

These men cooperated in a survey by Howard Robinson, fieldman with the Pioneer Farm Bureau Farm Management Association. They were selected because they were in the high income bracket for the 1960 FBFM record year.

One question was: What details of the hog business make the biggest difference between high profits and average income? Here are the three answers given most frequently: (1) maintain high average litter size, (2) hand-feed the breeding herd and (3) buy boars with production records.

Regarding farrowing of litters, 12 farmers said they farrowed four times a year, 11 farrowed twice a year, three farrowed six times a year, two farrowed every month and one farrowed five times a year.

Here are the feeding programs, from weaning age to market weight, used most widely by the farmers: (1) feed shelled corn and a supplement free choice, (2) feed a complete ground ration free choice and (3) use ground rations part of the time and corn and supplement free choice.

The farmers were also asked to indicate the management practices they followed in 1960. Here are the practices listed most frequently: (1) vaccinated pigs for cholera, (2) wormed the pig crop,



Add Top Hog Men - 2

(3) injected iron into baby pigs, (4) castrated boar pigs under four weeks of age, (5) marked litters for selecting gilts and (6) vaccinated pigs and sows for erysipelas.

The Pioneer Farm Bureau Farm Management Association is one of ten in Illinois cooperating with the University of Illinois in analyzing farm business records. Thirty-three fieldmen served over 5,600 farmers in 1960.

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U. of I. Features Giant Forestry Model at State Fair

URBANA--For a grandiose view of lumberjack and sawmill country or an insight into the paper, furniture or retail lumber industries, Illinois citizens have only to visit the University of Illinois exhibit area at the Illinois State Fair in August.

The U. of I. forestry exhibit features a scale model that tells the story of lumber from its beginning in timber country to its ultimate place in the hands of the American consumer.

U. of I. foresters built the giant model--it measures 4 by 16 feet--to illustrate graphically the numerous careers available to young people interested in forestry.

Forester Irving Holland points out that another major purpose of the exhibit is "to show the public that there is a lot more to forestry than sitting in a lookout tower watching for fires."

Anyone who sees the model has to admit that it serves its purpose. The exhibit is sprinkled with 1,000 miniature trees and features two saw mills; a recreation area with tents, picnic tables and campers; a ranger tower; power lines; and a watershed area complete with miniature lake, dam and rampaging river.

To show the utilization phase of the forestry industry, the model features a pulp and paper plant, a furniture factory, a retail lumber yard, and a wood products research installation that boasts its own research plantation, laboratories and greenhouse.

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U.S. Forestry Service Announces New Policy

WASHINGTON--The U.S. Forestry Service today announced a new policy which will place the emphasis on the production of wood products, rather than on the preservation of the forest as a national park. The new policy is a result of the study of the forest resources of the United States by the U.S. Forestry Service and the U.S. Department of Agriculture.

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All of these are tied together with an intricate network of roads, streams and bridges. The model also contains a miniature farmstead with windbreaks, cattle, sheep and orchards.

And, to add a final touch of realism, the model depicts a desolate area that has suffered the ravages of a forest fire.

Holland says nearly every member of the U. of I. forestry department contributed to the exhibit, which took more than two months of spare-time work to build. To make the most of their effort, the specialists made two large cases for the model so that it can be put on exhibition in any part of the state.

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All of these and the following will be discussed in the  
 following sections. The model also includes a number of  
 other variables, such as energy and momentum.  
 And to add a final touch of realism, the model includes a  
 term that has entered the literature as a "force term".  
 This term says roughly every amount of the U. S. economy  
 that is attributed to the deficit, which has been the source of  
 some work to date. To make the model more realistic, the  
 data were two large cases for the model so that it can be  
 applied to any size of the case.

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U. of I. Changes Date of Cattle Feeders Day

URBANA--Those of you looking forward to attending the University of Illinois Cattle Feeders Day this fall will have to wait a little longer.

University officials announce that the date has been changed from September to April 13, 1962. Why? To allow research men to complete studies that will shed more light on the vitamin A-deficiency problem.

Watch this paper for more details next spring.

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At 11:00 AM on Tuesday, February 14, 1962

UNIVERSITY OF ILLINOIS - URBANA - is looking forward to attending the Illinois-

Y of Illinois Girls' Football Day this fall will have to wait a little

year.

University officials announced that the date has been changed

to September 10-11, 1962. Why? To allow research men to complete

the studies that will shed more light on the vitamin A-deficiency

problem.

Watch this paper for more details next spring.

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FOR IMMEDIATE RELEASE

## Mechanized "Stomach" Helps UI Dairy Researchers Test Cattle Feeds In The Laboratory

URBANA--For years dairy scientists have relied heavily on feeding research with live animals to work out dairy cow rations that give the maximum in feed efficiency and milk production.

This research with live animals still is opening doors to higher milk production on the farm. But, in the past few years, there has been a trend to take dairy research out of the barn and put more and more of it into the laboratory.

Work horse of the laboratory research tools is the artificial rumen--a mechanized stomach that comes amazingly close to duplicating typical feed digestion in a live cow.

The artificial rumen isn't a new research tool. The first one was developed by a farsighted dairy researcher in the late 1890s. But it wasn't until the 1940s that the full potential of the laboratory rumen came to light.

Today nearly every major dairy research laboratory in the country makes some use of an artificial rumen. And some of these amazing machines come unbelievably close to simulating the real thing.

The artificial rumen at the University of Illinois is an example in point. U. of I. researchers feed ordinary concentrates and roughages into their laboratory rumen and come back 12 hours later to find the feed used up. In the meantime the mechanized rumen has outlined a nearly complete account of what took place during the period of digestion.

THE UNIVERSITY OF CHICAGO  
LIBRARY

The University of Chicago Library  
has acquired the following books  
from the collection of the  
University of Chicago Press  
and the University of Chicago  
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The following books were  
acquired from the University  
of Chicago Press and the  
University of Chicago Library.

Although this sounds almost supernatural to the average layman, dairy researchers are quick to point out that the principle of the artificial rumen really isn't very complicated.

Its use stems from the fact that nearly all digestion in the cow is caused by action of rumen bacteria and protozoa on the feed cows eat.

These microbes or "bugs" which live in the cow's stomach, cause feeds to ferment, producing a variety of combustible organic acids. These are absorbed into the blood and become available to the tissues, where they are oxidized to produce energy.

In artificial rumen research, scientists take rumen fluid containing these "bugs" from a live cow, place it in the mechanical rumen along with dairy concentrates and roughage, and periodically add an artificial saliva-water solution.

The bugs begin digesting the feed. Natural diffusion rids the rumen of gases and other waste products created by digestion. An escape tube takes care of the remaining toxic gases. The result: nearly complete digestion of feed by the mechanical rumen.

The U. of I. artificial rumen is actually six rumens incorporated into one machine. This helps researchers run tests comparing six different feed ingredients or feeding conditions simultaneously.

At the end of each test, the digestion process of each rumen is compared with the other five.

The Illinois artificial rumen is a complex of both complicated and not-so-complicated parts. Chief in the not-so-complicated category



are the two ordinary windshield wiper motors connected to the bottles containing the feed and rumen fluid.

The motors gently swish the bottles back and forth in a hot water bath kept at 100° F.--the rumen temperature of a live cow--to simulate natural movement inside the cow rumen during feed digestion.

A row of bottles containing an artificial saliva and water mixture along the back of the machine periodically mix saliva in with the feed being digested--another important step in simulating actual conditions in the cow.

Past research discoveries with the artificial rumen dramatically point up its value to the dairy industry.

Most mechanized rumen research has centered around the role rumen microorganisms play in cellulose digestion--a digestive process held nearly exclusively to ruminants and, oddly enough, to termites.

The artificial rumen also has helped researchers compare the nutritive value of different forages fed to dairy cows. And it has provided information on the influence of minerals on urea utilization by rumen microorganisms.

How close has the artificial rumen come to simulating conditions in the live rumen? Researchers say it's impossible to duplicate these conditions exactly. However, the fact that U. of I. scientists have been able to keep rumen "bugs" alive and reproducing for as long as ten days shows that they have come pretty close to the real thing.

The first thing I noticed when I stepped out of the plane was the fresh air. It felt like I had been in a cocoon for the last few days. The humidity was gone, replaced by a cool breeze that felt like a warm blanket.

The second thing I noticed was the sound of the birds. They were chirping and singing, filling the air with a melody that I had never heard before. It was a beautiful sound, and it made me feel like I was in a new world.

The third thing I noticed was the smell of the flowers. They were in full bloom, and their fragrance was everywhere. It was a sweet and pleasant smell, and it made me feel like I was in a garden of paradise.

The fourth thing I noticed was the sight of the mountains. They were majestic and beautiful, rising up from the valley like giants. The view was breathtaking, and it made me feel like I was on top of the world.

The fifth thing I noticed was the feeling of the sun. It was warm and bright, and it felt like it was embracing me. The sun was a source of life and energy, and it made me feel like I was in a new world.

The sixth thing I noticed was the taste of the food. It was delicious and fresh, and it felt like I was in a new world. The food was a source of joy and happiness, and it made me feel like I was in a new world.

The seventh thing I noticed was the sound of the water. It was flowing and bubbling, and it felt like it was singing to me. The water was a source of life and energy, and it made me feel like I was in a new world.

The eighth thing I noticed was the feeling of the wind. It was soft and gentle, and it felt like it was whispering to me. The wind was a source of life and energy, and it made me feel like I was in a new world.

The ninth thing I noticed was the sight of the stars. They were shining and bright, and they felt like they were looking at me. The stars were a source of life and energy, and they made me feel like I was in a new world.

The tenth thing I noticed was the feeling of the earth. It was solid and firm, and it felt like it was holding me up. The earth was a source of life and energy, and it made me feel like I was in a new world.

The eleventh thing I noticed was the sound of the rain. It was falling and splashing, and it felt like it was washing away my sins. The rain was a source of life and energy, and it made me feel like I was in a new world.

The twelfth thing I noticed was the feeling of the snow. It was soft and white, and it felt like it was covering me in a blanket. The snow was a source of life and energy, and it made me feel like I was in a new world.

Predict Anaplasmosis Increase

URBANA--An increase in anaplasmosis among cattle during the late summer and early fall is predicted by Dr. M. E. Mansfield, University of Illinois veterinarian at the Dixon Springs Experiment Station.

His prediction is based on the steady increase of the disease in southern Illinois during the past few years. The number of infected animals among Dixon Springs herds rose from one in 1950 to 43 in 1960.

Anaplasmosis is caused by organisms that attack and "kill" red blood cells. Infected animals run a fever for the first few days. Then they become weak and listless as a result of anemia.

These weak animals can be discovered by moving the herd, according to Dr. Mansfield, as they will lag behind or remain entirely to themselves, often hiding in bushy areas.

Their great weakness makes it necessary to keep feed and water easily available. One Dixon Springs cow drowned, Dr. Mansfield said, because she was not able to get out of a small stream where the animals watered.

The first signs of the disease are followed by jaundice, loss of appetite, depression, dehydration, labored breathing and irrational behavior.

"Irrational behavior often takes the form of belligerence, and such animals are dangerous," Dr. Mansfield said. He stressed working with them as quickly and quietly as possible, and perhaps administering a tranquilizer.



## Add Anaplasmosis Increase - 2

Rate of infection runs high. Last year at Dixon Springs, 43 of 75 cows in the three herds, or 57 percent, were affected, and 11 of them, or 15 percent, died. The highest incidence was in August, September and October.

Five of the 11 cattle that died were never seen to be sick, Dr. Mansfield said. The dead, found during routine observations, point to a "very important aspect of control--daily observation of the herd for sick animals."

Dr. Mansfield considers ticks and various species of flies and mosquitoes to be the most common carriers of the disease. "But it may also be transmitted accidentally through the use of contaminated surgical instruments, ear-marking and tattooing equipment, dehorning instruments, hypodermic needles and other equipment," Dr. Mansfield said. These instruments can easily transfer the disease from life-time carriers, the animals that recover from acute infections.

Although Dr. Mansfield predicts an increase in anaplasmosis, he is not sure how much of the state will be affected. "This depends on the availability of suitable vector flies or mosquitoes. Also, the high horsefly population area is pretty well confined to the southern part of the state," he explained. "Outbreaks can be expected if carrier animals are introduced into areas where anaplasmosis does not exist."

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FOR IMMEDIATE RELEASE

## U. of I. Changes Date of Cattle Feeders Day

Those of you looking forward to attending the University of Illinois Cattle Feeders Day this fall will have to wait a little longer.

University officials announce that the date has been changed from September to April 13, 1962. Why? To allow research men to complete studies that will shed more light on the vitamin A-deficiency problem.

Watch this paper for more details next spring.

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THE UNIVERSITY OF CHICAGO

PHILOSOPHY DEPARTMENT

STATE OF ILLINOIS DEPARTMENT OF REVENUE AND FINANCE

PROPERTY TAXES

STATE OF ILLINOIS DEPARTMENT OF REVENUE AND FINANCE

STATE OF ILLINOIS

Fertilizer And Proved Seeding  
Practices Produce Excellent Pastures

Research at the University of Illinois Dixon Springs Experiment Station proves the value of fertilizer and proved seeding practices in achieving top-producing pastures.

About ten years ago an upland tract on the station was a wilderness of sassafras, persimmon, brush and weeds. Brush and trees had grown as big as a man's arm or leg. Many questioned the economic soundness of spending \$40 to \$50 an acre to clear, fertilize and seed this area.

Today, however, station agronomist George McKibben reports that this former wilderness abounds with heavy clover, alfalfa and grasses. It can produce 300 to 500 pounds of beef or lamb gains per acre.

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Plan 4-H Dairy Judging Contest For State Fair

The Illinois State Fair will be a testing ground for 40 of Illinois' top 4-H dairy judges when they compete for a berth on the four-member Illinois team which will represent the state in national competition later this year.

The State Fair 4-H Judging Contest will be held Monday afternoon, August 14.

Forty 4-H'ers earned the right to compete in the State Fair Judging Contest by winning top honors in the State 4-H Judging Contest held at the University of Illinois in July. They are the survivors of an original group of more than 2,000 4-H'ers who have competed in dairy judging contests this year.

The four top dairy judges at the State Fair will compete in the National 4-H Dairy Cattle Judging Contest on October 2 at the National Dairy Cattle Congress in Waterloo, Iowa.

Last year the Illinois team coached by University of Illinois dairy specialist Jerry Cash ranked second in the national contest and was the winning team at the International Livestock Exposition in Chicago.

THE WISCONSIN STATE BAR ASSOCIATION

The 1914 State Bar will be a meeting ground for the  
profession, for 4-5 days, during which the members will  
be engaged in the study of the various subjects  
pertaining to the profession.

The State Bar will be organized in the  
month of June.

Forty-five percent of the total cost of  
the meeting will be borne by the State Bar  
Association, the balance being borne by the  
members of the State Bar Association. The  
meeting will be held in the month of June  
at the University of Wisconsin in July. The  
meeting will be held in the month of June  
at the University of Wisconsin in July.

The four top judges of the State Bar will  
be invited to attend the meeting and to  
address the members of the State Bar  
Association.

Each year the State Bar Association will  
be held in the month of June at the  
University of Wisconsin in July.

1914  
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## Foreign Countries Envy U. S. Grain Storage Ability

URBANA--Although American taxpayers are rather sensitive about the large amounts of corn, wheat and other grains stored in this country, foreign agricultural officials are envious of the U. S.'s ability to safely store vast quantities of grains.

As a result, many countries send delegates to the U. S. to study its system of handling, storing and marketing grain crops. One such group is now visiting the University of Illinois College of Agriculture, reports Assistant Dean R. W. Jugenheimer.

The group consists of leading farm officials from India, Israel, Brazil, Rhodesia-Nyasaland and Japan. They are learning as much as possible about how grain is handled in Illinois from the time of harvesting through storage, including transportation, processing, marketing and credit.

They'll use the knowledge they gain to help their countries improve their systems of handling and storing grains. And in some countries the problem is becoming serious. Take Japan, for example:

Japan's population is rising rapidly. Her people are showing a dietary trend toward more animal protein and bread grains. This means more imports of bread and feed grains. Her farmers are producing more upland grain crops and rice. As a result, her traditional system of storing grain is outmoded and inefficient.

Japan therefore must rapidly expand her storage facilities and must decide whether expansion will follow the present traditional system, a modification of that system, or a new and modern storage system.

The Japanese officials now at the U. of I. hope to get ideas for solving this problem.

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Illinois Future Farmers Gain Support

URBANA--Contributions totaling \$13,658 poured into the Illinois FFA Foundation last year from 857 business firms and individuals in support of the 15,011 Future Farmers of America in 471 Illinois high school chapters.

The Illinois Foundation of the Future Farmers of America is an organization designed to promote agricultural progress through recognition of outstanding FFA members. The Foundation operates through two committees: a state sponsoring committee and a board of trustees.

Funds for leadership training and promotional activities are allocated by the board of trustees. Filmstrips and college short course scholarships are made available by the Foundation. Awards and plaques are given to top FFA students in the areas of dairy, beef, swine, sheep, poultry, corn, soybean and small grain production. Awards are also given in farm mechanics, farm electrification, soil and water management, farm beautification, farm safety and public speaking.

Herbert R. Damisch, Springfield, state FFA advisor, is president of the board of trustees. Jesse Keyser, Lawrenceville, is vice-president, and G. Donavon Coil, Springfield, executive secretary of the Illinois FFA, is secretary. Other members of the board are Clifford Lant, Moline, chairman of the state sponsoring committee; H. M. Hamlin, head teacher trainer, University of Illinois; Melvin Henderson, head of Vocational Agriculture Service, U. of I; and M. G. Van Buskirk, Chicago, the member selected from outside agricultural education. The following

THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO  
THE UNIVERSITY OF CHICAGO

vocational agriculture teachers are on the board of trustees: Keith McGuire, Polo; Arthur Eicken, Carrollton; A. L. Schafer, Olney; Ralph Twenhafel, Waverly; Eldon Aupperle, Monmouth; Vance Ahlf, Armstrong; M. L. Boudreau, Clifton; Robert Howey, Sycamore; and James Guilinger, Williamsfield.

The state sponsoring committee is composed of businessmen who support the activities of vocational agriculture departments. This committee has been in existence since 1947. Organized by a group of Chicago businessmen, it has grown to include firms of almost every size and kind.

Heading the state sponsoring committee during 1961 are W. Clifford Lant, farm editor of the Moline Daily Dispatch, chairman; and Hugh Muncy, executive secretary of the Illinois Retail Merchants Association, Chicago, vice chairman.

Representing the five districts into which Illinois is divided are Richard E. Bowling, Marshall Putnam Oil Co., Henry; William Rushton, First National Bank, Joliet; Dorlan Smith, Menard Electric Co-Op., Petersburg; James Norman, Palmer American National Bank, Danville; and Orville M. Streiff, retired Highland banker.

Other downstate representatives include Andy Bird, Tri-County Electric Co-Op, Mt. Vernon; Earl Heacock, Central Illinois Public Service Co., Springfield; James Hume, H. D. Hume Co., Mendota; W. B. Trenchard, DeLand State Bank; and Ivan Parett, Illinois Agricultural Association, Bloomington.

Chicago members of the statewide committee are M. G. VanBuskirk, Illinois Dairy Products Association; John Austin, Sears Roebuck and Co.; and C. W. Weldon, First National Bank.

Acting as secretary of the state sponsoring committee is H. M. Strubinger of Springfield, a supervisor of agricultural education with the State Board of Vocational Education.

Illinois Vocational Education is on the board of trustees. The board of trustees is composed of business and industry representatives. The board of trustees is composed of business and industry representatives. The board of trustees is composed of business and industry representatives.

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Chicago business, it has grown to include firms of almost every size and kind. The board of trustees is composed of business and industry representatives. The board of trustees is composed of business and industry representatives.

Reading the state vocational committee during 1951 and 1952. The board of trustees is composed of business and industry representatives. The board of trustees is composed of business and industry representatives.

Richard E. Bowling, Director of the Illinois State Vocational Association, Chicago, Illinois. The board of trustees is composed of business and industry representatives. The board of trustees is composed of business and industry representatives.

Other members of the state vocational committee are: Mr. J. W. ... The board of trustees is composed of business and industry representatives. The board of trustees is composed of business and industry representatives.

Chicago members of the state vocational committee are: Mr. J. W. ... The board of trustees is composed of business and industry representatives. The board of trustees is composed of business and industry representatives.

Illinois Vocational Education - 2



FOR IMMEDIATE RELEASE

Note To Editors: These four stories announce the four area farm management tours scheduled in a few weeks. One or more of them may have special interest for your readers.

## Washington County Farmers Host Farm Management Tour August 23

URBANA--Two outstanding Washington county farmers will serve as hosts for the southern Illinois area farm management tour on August 23.

Beginning at 10 a.m. visitors will gather at the Alfred Unverfehrt farm, one mile south and 2½ miles west of Okawville. This tenant-operated 250-acre farm has 34 dairy cows averaging over 12,000 pounds of milk per cow per year. The operator uses a three-stall milking parlor, a pipeline milker and a bulk tank. He has also been farrowing 30 litters twice a year but plans to expand to 50 litters.

Unverfehrt has also had excellent crop returns. Visitors will see how he has averaged 85-bushel corn yields for the past three years.

At noon tour visitors will stop at the Okawville Community Park for a box lunch. Reservations should be made with Washington county farm adviser W. D. Smith, or with D. F. Wilken, 450 Mumford Hall, Urbana.

At 1 p.m. tour visitors will stop at the Melvin and Melroy Renegarbe farm, ½ mile west of Addieville. Here a father and son are operating 440 acres and handling 2,000 laying hens, 12 litters farrowed four times a year and 200 to 300 feeder calves. They use a picker-sheller and an auger feed bunk and are building a cement silo to store high-moisture corn.



Add Washington County Farmers Host - 2

Many new ideas are being profitably used on this farm. The operators achieved \$28 more returns per acre in 1960 with only \$8 more cost than similar-type farms.

This tour is sponsored by the Illinois Farm Bureau Farm Management Service and the University of Illinois Agricultural Extension Service. Ed Thurn, Mt. Vernon, local farm management fieldman, is tour chairman. All interested persons are welcome to attend. Tour adjournment time is 3 p.m.

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1911

Menard County Farm Selected For  
Farm Management Tour August 31

URBANA--An outstanding Menard county farm has been selected for the central Illinois area Farm Management Tour August 31, D. F. Wilken, University of Illinois farm management specialist, reported this week.

Beginning at 10:30 a.m., members of the Illinois Farm Bureau Farm Management Association will meet at New Salem State Park, one mile south of Petersburg, for their annual business meeting.

At 11:30 the group will have lunch in the park. Reservations should be sent to Menard county farm adviser Herbert Short, Petersburg, or to D. F. Wilken, 450 Mumford Hall, Urbana.

At 1:00 p.m. the tour begins at the Delmar Nance farm, 2 1/2 miles west of New Salem park or 3 miles east, 2 miles north and 1/2 mile west of Tallula.

On this 380-acre farm, Nance handles 200 to 300 feeder cattle and 500 hogs a year. He has used a self-feeding bunker silo since 1950. He also has two glass-lined silos, one used for corn and one for "haylage."

He feeds hogs in confinement and uses a lagoon waste-disposal system. He blends his own rations with a mix mill on the farm.

Nance is using up-to-date knowledge in livestock feeding, feed handling and processing and making it pay, Wilken observes.

This tour is sponsored by the Illinois Farm Bureau Farm Management Service and the University of Illinois Agricultural Extension Service. Charles Botterbusch, Springfield, local farm management fieldman, is tour chairman. All interested persons are welcome to attend.

Portland, Ore., June 10, 1911  
The Oregonian

Page 10  
1911

Two Kane County Farms Selected For  
Farm Management Tour August 28

URBANA--Two outstanding Kane county farms have been selected as stops for the northern Illinois area farm management tour August 28, University of Illinois farm management specialist D. F. Wilken announced this week.

Beginning at 10 a.m., visitors will meet at the Harmon Brothers farm, owned by R. N. Rasmusen, one mile south and one mile west of Elburn. The operators on this 500-acre farm are farrowing 12 litters of hogs six times a year, carry 300 choice feeder calves and use ear corn cribs converted to store shelled corn. They dry and feed all the grain they produce.

Wilken reports that these operators are achieving 10 percent more output per man than similar-type farms. One brother has charge of the hogs, while the other manages the feeder cattle. They also use a practical approach to grain storage and handling and keep records of all costs.

At noon, tour visitors will stop at the Plowing Match Association Park at Big Rock for a box lunch. G. R. Carlisle, U. of I. live-stock specialist, will discuss low-cost rations for beef feeding. Reservations should be sent to Kane county farm adviser L. D. Kerley at Geneva or to D. F. Wilken, 450 Mumford Hall, Urbana.

At 1:30 p.m. the tour stops at the Lawrence Strobe farm, two miles west and one mile north of Big Rock. This owner-operator is handling 500 choice feeder calves a year on 270 acres. He has consistently produced beef gains at a feed cost of less than \$15 a hundred pounds. He has been very successful with corn silage rations, Wilken reports. He uses less grain to get 100 pounds of gain than the average cattle feeder.

This tour is sponsored by the Illinois Farm Bureau Farm Management Service and the University of Illinois Agricultural Extension Service. Don Muehling, Naperville, area farm management fieldman, is tour chairman. All interested persons are welcome to attend.

ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED

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Two Adams County Farms Selected For  
Farm Management Tour August 29

URBANA--Two outstanding Adams county farms have been selected for the western Illinois area farm management tour August 29, D. F. Wilken, University of Illinois farm management specialist, announced this week.

Beginning at 10 a.m., visitors will meet at the Roland Wittler farm, 5 1/2 miles north and 1 1/2 miles west of Coatsburg. Here on this 160-acre farm, Wittler is handling 100 litters of hogs a year.

This farm is an excellent example of how a young farmer with limited capital developed a successful farm business with good management and a desire to succeed, Wilken reports. The operator is producing \$32 more return per acre with \$3 less cost than similar-sized hog farms. His output per man is 40 percent higher than average.

At 11:30 the tour will stop at the Pleasant Grove Church, 2 1/2 miles south of Quincy Airport, for lunch. Reservations should be sent to Adams county farm adviser S. E. Myers, Quincy, or to D. F. Wilken, 450 Mumford Hall, Urbana.

At 1:15 p.m. the tour visitors will stop at the Melvin and Dean Sims farm, 10 miles east and 3 1/2 miles south of Quincy. On this 820-acre farm, the Sims brothers are handling 80 litters and 200 feeder calves a year. They are using a corn combine, an automatic grinder for ear corn, a stack silo with bunks alongside and a glass-lined silo for storing high-moisture corn.

This farm shows the results of many good management decisions over the past 10 years, Wilken reports.

This tour is sponsored by the Illinois Farm Bureau Farm Management Service and the University of Illinois Agricultural Extension Service. All interested persons are welcome to attend. Thomas Jennings, Camp Point, area farm management fieldman, is tour chairman.

THE UNIVERSITY OF CHICAGO  
LIBRARY

...the western Illinois ...  
...University of Illinois ...

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This farm shows the results of ...  
...the farm ...

1912



FOR IMMEDIATE RELEASE

## Grasshoppers Threatening Crops In Some Illinois Areas

URBANA--Grasshoppers are threatening corn, soybeans and forages in some localized Illinois areas, H. B. Petty reported this week.

Petty is an entomologist with the University of Illinois and Illinois Natural History Survey.

The 'hoppers are coming from ditch banks, roadsides and clover fields. After they strip vegetation in these areas, they move on to soybean and corn fields. Petty warns that grasshoppers feeding on beans and blossoms now, while pods are filling, can cut yields.

On corn, 'hoppers devour leaves and silks and even chew the stalks. This damage affects pollination and reduces ear size. Therefore Petty advises farmers to check their fields immediately to see whether 'hoppers are present.

The abundance of grasshoppers in some areas depends on last year's 'hopper population and rainfall earlier this summer. Areas with few grasshoppers probably had heavy rains when the 'hoppers were small. Areas now threatened by these insects probably had heavy rains after the 'hoppers were large enough to survive the rains.

To control grasshoppers on soybeans and corn, use 1½ pounds of toxaphene or ¼ pound of dieldrin per acre. Let 40 days elapse between application of dieldrin and harvest.

To control grasshoppers on hay for dairy cattle, use one pound of malathion per acre. Then wait one week before harvesting.

Do not feed toxaphene-treated forage to dairy cattle or animals being finished for slaughter, Petty advises.

Faint, illegible text, possibly bleed-through from the reverse side of the page. The text is mirrored and difficult to decipher.

Picnic Beetles Uninvited Picnic Guests

URBANA--The saga of the uninvited guest applies especially well to the picnic beetle or scavenger beetle, as he is sometimes known.

This shiny black fellow has a particularly keen nose--if insects have noses--that's attracted to the aroma of food. No doubt you've spotted him on your picnics this summer, observes H. B. Petty, entomologist with the University of Illinois and Illinois Natural History Survey.

About  $\frac{1}{4}$  inch long, the beetle has four yellowish-orange spots on his back. He's not a bit fussy about his food and considers rotting fruits and vegetables, in addition to picnic lunches, quite a delicacy. Petty therefore suggests that you pick fruits and vegetables as soon as they ripen. Preventing insect damage to fruits and vegetables also discourages picnic beetles.

To get more scientific, sprays of malathion and diazinon will definitely throw the beetle's nose out of kilter. But it may be necessary to repeat applications as new beetles move into the area.

Controlling beetles in backyards and picnic areas, however, is a beetle of another color. You can spray the bushes and garbage containers with malathion or diazinon a few hours before serving food. Also give the general area a light spraying. But this is not a sure-cure method. The beetle's sensitive smelling power can detect food from long distances, and he may zoom in over the sprayed surfaces and land directly on the food.

Maybe the best solution is to simply pack an extra sandwich or two for the ravenous beetles.

THE BEEHIVE

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FOR IMMEDIATE RELEASE

## Home Owners Often Confuse Flying Ants With Flying Termites

URBANA--"Termites!" exclaims Mr. Home Owner as he watches them scurrying along the woodwork.

But wait just a minute. What he thinks are termites may actually be flying ants. Except for two or three differences, these two insects closely resemble each other, observes H. B. Petty, entomologist with the University of Illinois and Illinois Natural History Survey.

A difference in wing size is the easiest way to tell them apart. The termite's front and back wings are the same size. But the ant's front wings are larger than its back wings.

Termites also swarm from February until June or July. But ants swarm from February until November. So it's a good bet that insects swarming now are not termites.

Worker termites are always white. But worker ants may be black, yellow, tan or almost red. White objects seen in ant colonies are larvae and eggs.

The body structure of termites also distinguishes them from ants. Petty explains that both insects have three main segments--a head, thorax or middle section and abdomen. Because the thorax and abdomen are bluntly joined together, termites are often called blunt-waisted insects.

Ants, however, have the thorax and abdomen joined together with a slight restriction, giving them a thin-waisted appearance.

So next time you think termites are invading your home, grab one of the little fellers and examine him closely. Chances are he's simply a flying ant--you hope.

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Cattlemen Must Produce Right Kind Of Cattle

URBANA--"If cattlemen produce the right kind of beef cattle, they will find a ready market any place any time," believes A. L. Neumann, head of the University of Illinois beef cattle division.

By "right kind," Neumann means 12- to 18-month-old steers, weighing between 900 and 1,050 pounds, that grade from high good to middle choice.

Chain stores prefer these steers because they can merchandise them without excessive fat trimming. They can also sell them at prices that produce large-volume sales.

Hotels and restaurants are about the only outlet today for heavy, highly finished cattle. These cattle often sell at a lower price than medium-weight cattle. And it doesn't take many to fill the hotel and restaurant demand for prime loins.

Chickens That Lay Eggs of Different Colors

WASHINGTON—It is often said that the time has come when they will find a way to make the world a better place. In fact, the University of Chicago has been studying chickens that lay eggs of different colors. By "laying" means 12 to 18-month-old birds, weighing between 100 and 1,000 pounds. But what does it mean to lay a blue egg?

Chickens that lay blue eggs have a different gene than those that lay white eggs. They can also lay eggs of other colors without excessive fat fattening. They can also lay eggs of other colors without excessive fat fattening. They can also lay eggs of other colors without excessive fat fattening. They can also lay eggs of other colors without excessive fat fattening.

1944

Pelleted Feeds Increase Gains

URBANA--Livestock receiving pelleted feeds gain faster and more economically than livestock receiving the same feed in nonpelleted form, reports H. A. Cate of the University of Illinois.

Cate explains that animals eat larger quantities of pelleted feeds than nonpelleted feeds, and this causes the faster gains.

Pelleting does not change or improve the nutritional value of feeds. It does, however, slightly lower digestibility, since pelleted feeds pass through the digestive system more quickly. But increased consumption offsets this disadvantage.

Since self-feeding increases the consumption rate, limiting the feed intake of animals receiving pellets decreases the value of pelleting.

Cate says that, in general, pellets fed in the same amounts as nonpelleted feeds will not increase animal gains or improve feed conversion. Pellets, however, may reduce waste.

Unloaded Seeds Increase Gains

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FOR IMMEDIATE RELEASE

## UI Ag Engineers Study High-Temperature Corn Drying

URBANA--University of Illinois agricultural engineers are working to develop a dryer that will attach to corn harvesting equipment in the field and dry the grain at the same rate it is harvested.

In the experimental quick-dryer, a burner assembly blasts heated air over high-moisture corn as it tumbles through a 10-foot rotary drum dryer--dropping the moisture content from 30 to 15 percent in about two minutes.

U. of I. agricultural engineer Roger Yoerger says air in the dryer is heated to 500 to 700 degrees compared with an air temperature of about 160 to 180 degrees in conventional dryers.

Two main purposes of the tests to date have been to find out how high temperatures affect drying rates and to study the effects of cracking the corn as a possible means of speeding up drying rates.

In tests so far, cracking has had about the same effect on corn drying rate as researchers found when they boosted the air temperature from 500 to 700 degrees.

Yoerger points out that the tests are in the early experimental stage. The future of the quick dryer depends not only on the mechanical problems of building the field machine, but also on nutrition tests set for later this year.

Feeding trials are planned to check what effects high-temperature drying might have on the feeding value of corn.



Future Farmers Recommended For Highest Degree

SPRINGFIELD--Fifteen Future Farmers of America members from Illinois will be recommended to receive the organization's highest degree, that of American Farmer, at the 34th annual National FFA Convention in Kansas City, Missouri, October 11-13.

Herbert R. Damisch, Chief, Agricultural Education, said today that the 15 boys named from Illinois are Dale Wayne Allen, Ashton; Jerry Dean Barth, Minonk; George Alvin Brown, Jr., Waverly; Gary S. Dameron, Towanda; Archie L. Devore, Mulberry Grove; Lynn Laible, Toluca; Lyle E. Moscher, Lanark; Lloyd Lee Nash, Martinsville; Daryl Franklin Pfoutz, Franklin Grove; Robert W. Post, Crescent City; Kenneth C. Steinmann, Waterloo; Edward Stokes, El Paso; Kermit L. Vollmar, Canton; Samuel E. Weston, Rossville; and Bill Wilson, Champaign.

Nationally the FFA Board of Directors voted to recommend 377 Future Farmers to receive the American Farmer degree this year. The degrees will be presented at the Municipal Auditorium in Kansas City during the afternoon session on October 11. Each degree winner will receive a certificate and gold key from the FFA organization, plus a cash travel allowance from the Future Farmers of America Foundation, Inc.

The American Farmer award is based on the FFA member's record in farming, leadership and scholarship. The degree is limited to FFA members who have been out of high school at least one year and who show evidence of becoming successfully established in farming. State FFA associations can select one American Farmer degree candidate for every 1,000 members.

Star Farmer awards will be announced during the convention's evening session on October 11. The boy selected as the most outstanding of the American Farmer degree winners will be named Star Farmer of America and will receive a \$1,000 cash award. Three others will receive regional Star American Farmer awards of \$500 each.

THE TWENTIETH CENTURY

The following is a list of the names of the persons who have been mentioned in the preceding pages of this book.

At the time of the publication of this book, the following persons were living in the United States:

Mr. J. M. Smith, Secretary of the Department of Agriculture, Washington, D. C.

Mr. W. H. Wood, Director of the Bureau of Entomology and Plant Quarantine, United States Department of Agriculture, Washington, D. C.

Mr. C. W. Smith, Director of the Bureau of Entomology and Plant Quarantine, United States Department of Agriculture, Washington, D. C.

Mr. J. M. Smith, Secretary of the Department of Agriculture, Washington, D. C.

Mr. W. H. Wood, Director of the Bureau of Entomology and Plant Quarantine, United States Department of Agriculture, Washington, D. C.

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Mr. J. M. Smith, Secretary of the Department of Agriculture, Washington, D. C.

Mr. W. H. Wood, Director of the Bureau of Entomology and Plant Quarantine, United States Department of Agriculture, Washington, D. C.



FOR IMMEDIATE RELEASE

## Bills Threaten Medical Progress

URBANA--Two bills recently introduced in Congress, if passed, will seriously retard medical progress for both man and animals, University of Illinois veterinarians warn. Both bills rigidly control research work.

The Moulder bill would establish an agency for laboratory animal control headed by a commissioner whose only qualification would be that he be admitted to practice law before the United States Supreme Court. The bill would forbid experiments or tests on living animals without prior approval of a written project plan by the Secretary of Health, Education and Welfare.

The Griffiths bill would permit experimenting on vertebrate animals, such as dogs, rats, birds, frogs, snakes and fish, only when no other "feasible and satisfactory methods" could be used to get the information.

"These bills are the most serious threat to biological research and teaching in many years," Dr. Norman Levine, U. of I. parasitologist, said. "The Moulder bill would be ridiculous if it were not so dangerous. Millions of experimental animals are used each year--over 12 million mice alone. Imagine the paper work involved in getting permission to use them! And the Griffiths bill--well, you could spend a lifetime trying to prove that absolutely nothing existed that could substitute for a vertebrate animal in an experiment."



"Both bills claim that their objective is to insure the humane treatment of animals," Dr. Levine continued, "but they are not the way to do it."

One need only look at the advances in medical research to realize how dangerous these restrictive bills are. Every drug--including aspirin--was tested and every major operation was performed first on animals and then on man. Penicillin, blood transfusions, heart surgery, anesthesia or any other medical advance would not exist without animal experimentation. And although insulin was discovered years ago, each new batch must be tested on animals before being distributed for sale. Such routine processes would require tons of paper work and extra time if the Moulder bill were passed.

Pets of all kinds have also benefited from animal research. Vaccines against rabies, distemper, surgery for heart defects, blindness, cancer, diaphragmatic hernias and treatments and cures for numerous other diseases were first performed on research animals.

"Animals are essential for research," Dr. Levine emphasized. "And the dog is one of our most ideal subjects. Its anatomy and physiology closely resemble man's. It is an ideal size. And it is not a vegetarian like many other animals. Also, dogs suffer from many of the same diseases people have."

Stories about the "butcher" or "sadist" scientist could not be further from the truth. "No scientist or scientific laboratory has ever been found guilty in court of cruelty to animals, despite numerous efforts by antivivisectionists to discover or manufacture cases of cruelty," Dr. Carl Brandly, dean of the U. of I. College of Veterinary Medicine, said.



Veterinarians, physicians and biological scientists are dedicated to the alleviation of human and animal suffering. They are as concerned as legislators and citizens about humane treatment of laboratory animals and have formed two national organizations devoted to the welfare of these animals.

Legislation would not insure humane treatment of animals; it would only cut down on the number used and thereby seriously hamper progress in both animal and human medicine.

"The choice the Moulder and Griffiths bills offer is whether to cut off our leg at the knee or the hip. But we are in a desperate race for national survival and to cut off even as much as a big toe would seriously interfere with our nation's ability to run that race," Dean Brandly said.

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"Humane" Laws Not Needed,  
U. Of I. Veterinarians Maintain

URBANA--The Griffiths and Moulder bills now before Congress claim that their main objective is to insure humane treatment of laboratory animals. This claim is refuted by University of Illinois veterinarians, who emphatically state that laboratory animals are not mistreated.

And, they add, these bills which restrict the use of research animals would accomplish nothing except to retard medical progress.

As a typical example of the life of an experimental animal, U. of I. veterinarians state the case of "Tootsie," a reddish-brown, long-haired dog.

"Tootsie" was born and raised in a second-story, one-room metal cage. Like other cages, this one is devoid of fanciness, but there is room to jump and stretch--with a couple of feet left over. And aside from this simplicity, "Tootsie" can boast of efficient daily maid service.

"Tootsie's" home looks out onto more cages just like hers. They house chickens, pigs and her best friend, "Fluffy," the cat.

"Tootsie" is not an ordinary dog. Her life in a cage has made her a bit shy of most people--except her caretaker, Leonard White. Her special feeling for White is not one-sided. As White explains while shaking hands with "Tootsie," "You can't help but grow fond of these animals. You know, Tootsie's the spittin' image of her mother."



Contrary to popular belief, "Tootsie" and her associates seldom see the operating table. "Ninety percent of the experiments on animals consist of nutritional or drug tests," Dr. Norman Levine, U. of I. parasitologist, explained. "And in the small minority where operations are performed, the animals are under complete anesthesia and everything possible is done to make them comfortable."

Making them comfortable is one of White's most important jobs. After an animal is brought back from surgery, White keeps a constant vigil and immediately notifies the veterinarian in charge if the animal has any complications.

Welfare of animals is of utmost importance, according to Dr. Levene, not only because veterinarians are dedicated to their well being but also because any complication could ruin an experiment.

True, experimental dogs are not showered daily with affection as is the dearly beloved family pet. But they do have pure food and water and good shelter not given to stray dogs or ill-treated pets. And they seem happy. As Dr. D. E. Dees, U. of I. veterinary scientist, commented, "Dogs--the puppies as well as the full-grown ones--adjust quite well to life in a cage. Even when we open a cage, the animal seldom tries to jump out and run away. Why should it? All its needs are met right here."



Feeding Margin Only Source  
Of Profit In Feeding Cattle

URBANA--More and more cattle feeders are finding that feeding margin is their only source of profit, observes A. L. Neumann, head of the University of Illinois beef cattle division.

He explains that prices of feeder cattle are still relatively high. Yet prices for finished or slaughter cattle are not climbing in comparison. On the average, the price that farmers pay for feeder cattle and the price they sell them for as slaughter cattle have been almost the same in the past year.

Therefore cattle feeders must be shrewd enough to produce cheap gains that cover all costs and still provide some profit. This means feeding calves or light yearling cattle on rations containing a lot of cheaply produced roughages.

What's keeping the price of feeder cattle up? First, more feeder cattle from the west are being fed in the west. Second, more midwest farmers are feeding cattle. And, third, already established cattle feeders are increasing the size of their operations.

The combination of these reasons has created a shortage of feeder cattle and kept the price up. Neumann says these trends do not seem to be temporary. They may continue for years.

Reading Material for 1954  
of Faculty in English

1954-1955 - More and more faculty members are finding that reading  
is their only source of intellectual stimulation. In response, the  
University of Chicago has decided

to examine that aspect of faculty life and to  
find out how best to assist in providing them with  
materials. In the process, the first step is to  
find out how they feel about their reading habits  
and the time they spend in the year.

Therefore, the University has decided to conduct  
a study that will give the faculty some idea of  
their reading habits and their reading needs. This  
study will be conducted by the

Faculty Reading Committee. The committee will  
conduct a survey of the faculty's reading habits  
and will report the results to the faculty.  
The committee will also recommend ways to  
improve the faculty's reading habits.

The committee of faculty members was organized in  
1953 and has been active in promoting the  
study. They are currently in the  
process of conducting the study.



FOR IMMEDIATE RELEASE

## Illinois Farmers Join Labor Day "Holiday Alert" Campaign

URBANA--Illinois farmers are taking to heart the idea that safety is everybody's job by cooperating with the state Division of Traffic Safety during the Holiday Alert campaign for the Labor Day week end.

The farmers' role in the safety program is to fly red flags along roadsides in front of their homes to remind motorists of the added danger on the highway during the holiday.

University of Illinois farm safety specialist O. L. Hogsett says the farm flags should be a reminder to all motorists whether they plan a long trip or not. Nearly two-thirds of all holiday traffic accidents occur within 25 miles of the victim's home, indicating that too much familiarity with the home area roads is a vice we can do without.

Hogsett points out that the farm flags are only one part of a major drive to save lives during the Labor Day week end. Also included in the program is the "Lights On" campaign which asks motorists to drive with their lights on during the daylight hours of the holiday.

Motorists also will be asked to drive at five miles below the posted speed limits during the holiday, which starts at 6:00 p.m. Friday, September 1, and runs until midnight on Labor Day, September 4.

THE HONORABLE ATTORNEY GENERAL

Illinois Workers' Compensation Act  
Holiday Hours

WHEREAS, the Illinois Workers' Compensation Act provides that an employer is liable for the compensation of an employee who is injured or becomes disabled while engaged in his or her regular and customary duties; and

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WHEREAS, the Illinois Workers' Compensation Act provides that an employer is liable for the compensation of an employee who is injured or becomes disabled while engaged in his or her regular and customary duties; and

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FOR IMMEDIATE RELEASE

## 4-H Peace Corps Project Under Way

URBANA--A special 4-H Peace Corps project which will send qualified 4-H'ers on two-year assignments to Latin American countries is fast becoming a reality.

Under the program, 50 high school graduates with strong backgrounds in 4-H Club work will receive Peace Corps assignments starting about December 1.

These young people will work as two-person teams and help to develop 4-H-type rural youth programs in the project countries. They will be accompanied to their assignments and guided in their work by a project director and three regional supervisors representing the National 4-H Foundation.

Basically the Peace Corps teams will be responsible for recruiting and training local 4-H Club leaders, helping to establish and carry out club and "county"-level 4-H project exhibits and visiting members' projects to provide technical assistance with their project work.

Selected candidates will receive two months of training at the National 4-H Club Center in Washington, D. C., all expenses paid. From these trainees, volunteers will be selected for further training and assignment to the 4-H Peace Corps project.

Trainees not selected will return home with no further obligations, but will be classified as "Standby Reserves" in case they are needed for this or other Peace Corps projects.

FOR INFORMATION PURPOSES

THE 1964-65 FISCAL YEAR

Under the program of the Department of the Interior, the following 4-1/2% of two-year allocations to Indian education activities have been approved for the fiscal year ending September 30, 1965.

The following table shows the amount of the two-year allocations to be made available for the fiscal year ending September 30, 1965, and the amount of the one-year allocations to be made available for the fiscal year ending September 30, 1964.

The following table shows the amount of the two-year allocations to be made available for the fiscal year ending September 30, 1965, and the amount of the one-year allocations to be made available for the fiscal year ending September 30, 1964.

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1965  
1964

Develop Budget Form For Deciding  
On 1962 Wheat Program

URBANA--University of Illinois farm management specialists this week developed a special budget form to help farmers work out their decisions on the 1962 Wheat Program.

The form enables farmers to estimate their incomes if they divert only the required 10 percent acreage reduction or if they divert more acreage voluntarily into conservation use. It shows estimated fertilizer and other crop costs based on detailed research studies conducted by the department of agricultural economics.

When a farmer has worked through the form, he can see the differences between his income from the minimum participation and from putting more of his wheat allotment into conservation uses.

Extension farm management specialist R. B. Schwart believes it will make very little difference in Illinois farmers' income whether they divert 10 percent of their wheat acreage or a larger amount. On most farms the land not used for wheat could be planted to soybeans or corn.

Copies of this form will be available from all county farm advisers by September 8.



Editors' Note: The following questions and answers present the general provisions of the 1962 Wheat Stabilization Program. Farmers who have specific questions about the program for their farms should see their farm adviser or their county ASC committee.)

QUESTIONS AND ANSWERS ABOUT THE 1962 WHEAT STABILIZATION PROGRAM

WHAT IS THE PURPOSE OF THE NEW WHEAT STABILIZATION PROGRAM?

Congress intended to accomplish three things when it passed the Agricultural Act of 1961: (1) decrease government stocks; (2) reduce government costs of storing surplus wheat; (3) increase wheat producers' net incomes.

MUST EVERY FARMER PARTICIPATE?

Yes, every farmer who grows wheat must plant within his allotment or marketing quota exemption or be subject to heavy penalties. In the national wheat referendum on August 24, more than the required two-thirds majority approved the 1962 program.

HOW DOES A FARMER PARTICIPATE IN THE PROGRAM?

A farmer must plant within his allotment (or marketing quota exemption) in order to sell the wheat he produces without penalty. The allotment or marketing quota exemption has been cut 10 percent from 1961.

In past years farmers with allotments of less than 15 acres could grow up to 15 acres and market this wheat without penalty. They were not eligible for price supports, however, if they planted more than their allotments.

Farmers who have planted above their small allotments and grown 15 acres or less any time in the past three years must cut their acreage by 10 percent in 1962. They cannot plant more than 13.5 acres. They can sell the wheat they produce without penalty, but they cannot get



the \$2 a bushel price support if their allotments are less than 13.5 acres. In this situation, the 13.5 acres is called the marketing quota exemption.

#### WHO IS ELIGIBLE FOR PRICE SUPPORT?

Farmers who plant within their allotments and divert 10 percent of their 1961 allotment into conserving uses are eligible for price support of about \$2 a bushel in 1962. They must also provide for storage. (The 1962 allotment figure sent to farms by local ASC offices included the 10 percent required reduction.)

#### HOW DOES A FARMER QUALIFY FOR THE CONSERVATION PAYMENTS?

Farmers who have grown more than 15 acres of wheat in any of the past three years and whose 1962 allotment is 13.5 acres or more can receive conservation payments by devoting the 10 percent acreage cut to a conservation use. If he desires, a wheat grower can divert an additional amount up to 30 percent and receive additional payment.

If a farmer has not planted more than 15 acres in any of the past three years, he can get a payment by diverting at least 10 percent of his highest acreage, or by complying with his 1962 allotment and devoting the diverted acreage to conservation uses. If the 40 percent diversion is less than 10 acres, the wheat grower can divert up to 10 acres into conservation uses and receive payment.

#### HOW MUCH PAYMENT WILL A FARMER RECEIVE?

The payment rate on the first 10 percent reduction will be based on the county average yield times 45 percent of the county support rate. The payment on each farm will be the county rate times the wheat farm productivity index times the number of acres diverted.

of a total price amount of four thousand and five hundred

and in this situation the amount is subject to the usual

condition.

IS THERE A FARMER QUALIFY FOR THE CONSERVATION

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IS THERE A FARMER QUALIFY FOR THE CONSERVATION

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cent of them are of the type who have been engaged in the

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business of about 25 years in 1961. They have been engaged in the

For farmers who voluntarily reduce their wheat acreage beyond the required 10 percent cut, payments on this additional acreage will be based on 60 percent of the county support rate. County support rates will be about 21 cents a bushel above 1961.

HOW IS THE FARM PRODUCTIVITY INDEX DETERMINED?

Farm productivity indexes are established by the ASC committees in each county. They are intended to reflect yield differences between farms. If a farmer does not feel that his productivity index reflects the actual yields on his farm, he can present evidence of actual 1959 and 1960 crop yields to the county committees and they must use these yields in setting the productivity index.

HOW WILL PAYMENTS BE MADE?

Payments will be made in cash or in wheat, if available, at the option of the Secretary of Agriculture. Up to one-half of the payment can be made within a few weeks after sign-up if the producer wants it. The remainder will be paid out after compliance with the program has been determined.

ON A SMALL FARM, IS IT POSSIBLE TO GET PAYMENTS AND NO PRICE SUPPORTS?

Yes, this could occur when a farmer plants within his marketing quota exemption but above his allotment. He could still divert acreage and collect payments, and yet not qualify for price support.

WHAT IS THE PENALTY IF A PRODUCER OVERPLANTS HIS ALLOTMENT OR MARKETING QUOTA EXEMPTION?

If a producer overplants his allotment, he can destroy the excess before a certain date and avoid penalty. If he does not do this, he will be subject to marketing quota penalty. This penalty is the

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It is the... Farm productivity... as in each county. They are intended to reflect yield differences... 10 percent above of so... e these yields in setting the productivity index.

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It is... Yes, this could occur when a farmer... a extra exemption but there are... range and collect payments, and yet not qualify for price support.

It is... If a producer... will be... will be... -1000-

number of acres overplanted times twice the normal yield times 65 percent of parity. Based on recent parity price, this would be about \$1.54 a bushel.

IF A FARMER HAS GROWN NO WHEAT IN 1959, 1960 or 1961, CAN HE GROW WHEAT FOR MARKET IN 1962.

No, if he has not grown any wheat in the past three years and has no allotment or marketing quota exemption, then he cannot grow wheat for market in 1962.

IS THERE ANY WAY A FARMER CAN GROW WHEAT WITHOUT BEING SUBJECT TO MARKETING QUOTAS?

Yes, a farmer can apply for permission to plant up to 30 acres of wheat for feed. If this is approved, he can be exempt from quotas, provided the crop is fed entirely on the farm where it is grown.

ARE ANY OTHER CROPS COVERED IN THE AGRICULTURAL ACT OF 1961?

Yes, the feed grain program in effect in 1961 is extended for one year, and feed barley is included.

IF A FARMER GROWS BOTH WHEAT AND CORN, MUST HE SIGN UP TO DIVERT ACREAGE FROM BOTH?

No, there is no cross-compliance between the wheat and the feed grain programs.

WHAT MUST A FARMER DO WITH THE ACREAGE HE DIVERTS TO QUALIFY FOR CONSERVATION PAYMENTS?

The conservation requirements will be the same as for the 1961 feed grain program. The land that is designated as diverted acres must not be pastured or cut for hay except under special emergencies declared by the Secretary of Agriculture.

[Illegible text]



FOR RELEASE FRIDAY, SEPTEMBER 8, 1961

## Urges Two-Year Food Reserve Against Atomic Attack

WOODRUFF, WISCONSIN--A two-year reserve store of standardized, concentrated, ready-to-eat foods, as insurance for survival in the event of atomic attack, was urged here tonight by Dean Louis B. Howard of the University of Illinois College of Agriculture.

Addressing the 22nd annual "Starch Round Table," a conference of carbohydrate scientists from the United States and abroad, Dean Howard declared that "adequate supplies of food will be the ultimate determinant of survival." He emphasized that our huge stores of surplus grain, which have given us a false sense of security, are valueless without the industrial capacity to process them into food and the distribution facilities capable of transporting food to consumers.

Seeing the threat of an atomic knockout of our machinery of food production, processing and distribution, Dean Howard warned of the imperative need to start at once toward a reserve supply of standardized, nutritious foods, and to develop a widespread system of storage centers from which such food can be dispensed.

Because of our extreme dependence on mechanized equipment and transportation, we are much more vulnerable to atomic attack than is Russia, the Illinois dean said. But a two-year food cache would be a resource that Russia or China could not possibly match, and would be an ace-in-the-hole in our diplomatic dealings with the Communist world.



Add Food Reserve Against Atomic Attack - 2

Speaking to an audience including a broad representation of corn processors, Dean Howard urged this industry to take a leadership role in building the food reserve.

The Starch Round Table, sponsored by Corn Industries Research Foundation, Inc., Washington D.C., is an annual gathering of research scientists, geneticists and carbohydrate chemists. The conference serves as a forum for reporting on the work of foundation-supported grants in a continuing program of basic and applied research.

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UI Ag Engineer Reports Progress  
Of Manure Lagoons For Poultry

URBANA--The desire to find a less costly method of poultry manure disposal has attracted much attention to lagoons either a short distance away from or directly under the poultry house, a University of Illinois agricultural engineer reported today.

Speaking on the U. of I. Poultry Day program in Urbana, engineer Art Muehling said lagoons dug away from the house are built like a farm pond with a minimum depth of three feet and a maximum depth of five feet.

"Under the system manure from the poultry house is periodically flushed into the lagoon, where bacteria digest it," Muehling said. "Researchers recommend that these lagoons allow eight square feet of lagoon surface area per bird."

Producers using indoor lagoons are ponding water directly under a slatted or wire floor in the poultry houses and allowing all droppings to fall directly into the water, Muehling explained.

"The University of Nebraska has had a house of this type in operation for 10 months. They hope they will be able to go five years without cleaning out the lagoon," he said.

Muehling stressed that the use of lagoons still is in the experimental stage. Researchers are in no position to forecast their performance for longer periods.

"However, even though experience is limited and the amount of test results is small, the potential for lagoons for poultry appears to be good," Muehling concluded.

Water Pollution Control  
and Sewerage Treatment

1970-1975--The desire to find a less costly method of sewage treatment has stimulated much attention to remove either a short distance away from or directly under the water body, a treatment of sewage.

Speaking at the U. S. Society for the Progress in Urban, Sanitation and Health said that the way to solve the problem is to find a way to remove sewage from the city and a treatment plant of the city.

Under the system sewage from the country would be treated by the city and the sewage would be treated in the city. The city would be responsible for the treatment of the sewage.

Proponents of the system believe that the city would be able to handle the sewage and that the country would be able to handle the sewage. The system would be a way to solve the problem of sewage treatment.

The Ministry of Health and a group of experts in the field of water pollution control are working on a plan to solve the problem of sewage treatment. They hope that the plan will be able to solve the problem of sewage treatment.

However, even though experience is limited and the amount of sewage is small, the potential for sewage treatment appears to be great. Sewage treatment is a very important part of the water supply.

Soybean Price In Government  
Hands, Economist Points Out

URBANA--Higher support prices, a record-sized crop and a huge oil surplus means that soybean prices in the year ahead will greatly depend on government actions, a University of Illinois agricultural economist believes.

T. A. Hieronymus reports that the 1961 feed grain program and a higher support price of \$2.30 a bushel have boosted the soybean supply for the coming year about 25 percent over a year ago. He feels that the market cannot absorb this many more soybeans in one year with the price support of \$2.30.

So the result will be an accumulation of beans in the commodity Credit Corporation stockpile. The amount that the government wants to stockpile will determine what action will be taken to dispose of oil and meal through subsidized export programs.

Here is how Hieronymus appraises the situation for the year ahead:

Any forecast on future soybean prices has many uncertainties. At the present time he assumes that the Berlin situation will remain tense, but no worse.

The total supply beginning October 1 will be about 700 million bushels. Bad weather might change crop conditions somewhat, but that doesn't seem likely.

-more-

OFFICE OF THE DEAN  
540 EAST 58TH STREET, CHICAGO, ILL. 60637

Dear Mr. [Name]:  
I am pleased to hear that you are interested in the program of the University of Chicago. The program is designed to provide a broad education in the liberal arts and sciences, and to prepare students for careers in a wide variety of fields.

The University of Chicago is a leading institution of higher learning, and our faculty is composed of some of the world's finest scholars. We offer a wide range of courses, from introductory to advanced, and we provide excellent facilities for research and study. Our graduates are highly respected and sought after by employers in all fields.

We are currently seeking students who are interested in the program and who have a strong academic background. If you are interested, please contact the Office of the Dean at the University of Chicago, 540 East 58th Street, Chicago, Illinois 60637. We will be happy to provide you with more information about the program and the university.

Very truly yours,  
[Signature]  
Dean, University of Chicago

The total number of students in the program is approximately 100. The program is highly competitive, and we receive a large number of applications from students around the world. We are looking for students who are motivated, academically strong, and interested in the liberal arts and sciences.

Any soybeans the CCC takes over will be offered for sale next summer at \$2.46 1/2 a bushel for No. 2 soybeans. This is the maximum price. But this price will be reached only if growers forfeit their beans to the CCC. This will happen only if beans remain below the loan next spring.

Government programs could involve oil buying to encourage a large crush to avoid a soybean surplus. The real question is the amount of beans the CCC wants to hold as a desirable reserve.

Assuming government holdings of about 50 million bushels of soybeans a year from now, the crush could run about 450 million bushels and exports about 155 million bushels.

Considering some increase in demand for meal and the level of livestock and poultry prices, meal could average about \$52.85 a ton for bulk 44 percent meal at Decatur for the marketing year.

Soybean oil is in surplus. The increased crush of soybeans would release additional oil supplies on a world market already well supplied. But government programs will probably result in higher prices to prevent a soybean surplus from developing.

In terms of seasonal price movement, futures could reach a peak in November or December and decline during the spring months. War would of course change this picture.

Meal buyers, remembering last year, may overbuy during the fall months, and higher prices could reduce use just as last fall a low price stimulated use.

Major boosts in soybean supplies have occurred before as a by-product of programs for other commodities, particularly in 1954 and 1958. In both years the crop was kept out of serious surplus trouble by a reduction in the support price.

Price supports low enough to avoid accumulation of a surplus have been a vital part of the successful growth of the soybean market in recent years, Hieronymus concludes.

Any amount the GOC would pay will be offset by the same amount in the GOC's account. This is the maximum amount that will be returned to the GOC. This will happen only if the amount remains below the GOC's account.

Government payments would be made only if the amount in the GOC's account is less than the amount in the GOC's account.

Assuming government payments of about 10 billion dollars a year from now, the amount would be about 400 million dollars and about 100 million dollars.

Considering the increase in demand for coal and the level of investment and output prices, coal could average about 200 million tons a year.

Output will be in excess of the demand for coal. The government will probably have to pay for the coal.

In terms of national price movements, the amount would be about 10 billion dollars a year. The amount would be about 10 billion dollars a year.

Coal prices, transportation, and other costs would be about 10 billion dollars a year. The amount would be about 10 billion dollars a year.

Other factors in national price movements have been discussed in a report of the GOC. The amount would be about 10 billion dollars a year.

The amount would be about 10 billion dollars a year. The amount would be about 10 billion dollars a year.



FOR IMMEDIATE RELEASE

## Three Illinois Farm Advisers Receive National Recognition

URBANA--Three Illinois farm advisers will receive distinguished service awards from the National Association of County Agricultural Agents at the organization's annual banquet this week (Sept. 14) in New York.

Receiving the awards are Lyman B. Kimmel, Saline county; Hubert H. Fulkerson, Ogle county; and Paul T. Wilson, Livingston county.

Lyman Kimmel has been with the extension service for 16 years. He graduated from the University of Illinois in 1928. W. D. Murphy, assistant director of extension, notes that Kimmel has made outstanding accomplishments in the areas of livestock and soils, a particular need in the counties where he has served.

Hubert Fulkerson graduated from the University of Illinois in 1943. He served in Saline, Livingston and Williamson counties before going to Ogle county. Fulkerson is credited with organizing one of the most soundly conceived county educational programs in Illinois.

Among Paul Wilson's long list of accomplishments are the development of a coordinated Soil Test Recommendation program and a Livestock Boosters organization in Livingston county.

Wilson also helped organize the Avoca Betterment Club--a community club with family membership. The club meets regularly each month with educational and entertainment programs.

Wilson graduated from the University of Illinois in 1933. He served in Saline county before going to Livingston county in 1950.

FOR IMMEDIATE RELEASE

NEW ILLINOIS STATE UNIVERSITY  
STATE HISTORICAL SOCIETY

UNIVERSITY - NEW ILLINOIS STATE UNIVERSITY will receive the  
first awards from the National Association of County Historical  
Societies at the organization's annual banquet this week (Sept. 14)  
at New York.

Receiving the awards are Lynn S. Kimmel, State Society  
President, Cook County, and Earl V. Wilson, Chicago County  
Society. Lynn Kimmel has been with the extension service for 15 years.

He graduated from the University of Illinois in 1912, W. M. Kimmel,  
State Society of Extension, notes that Kimmel has made outstanding  
contributions in the areas of livestock and soil, a particular area  
in the counties where he has served.

Robert Peterson, president of the University of Illinois in  
1911, he served in Illinois, Michigan and Wisconsin counties before

and to Cook County. Peterson is credited with organizing one of the  
first county extension programs in Illinois.

Earl Wilson's long list of accomplishments are the de-  
velopment of a coordinated soil conservation program and a  
soil conservation organization in Cook County.

Wilson also helped organize the first extension program in Cook  
County with Earl Kimmel. The old motto "wisdom is only won  
by education and experience" is his.

Wilson graduated from the University of Illinois in 1911, he  
served in Cook County before going to Michigan County in 1912.

1951  
1951

Extramural Ag Courses Offered  
For College Credit In State

URBANA--Karl E. Gardner, University of Illinois College of Agriculture associate dean, announces that the college will offer six extramural courses this fall.

Persons taking the courses may receive graduate or undergraduate credit, according to Gardner.

The courses are:

1. Ag Econ. E332: Livestock Marketing. The first class meets Thursday, September 21, 6:30 p.m., in room 310, Science Building, Northern Illinois University, DeKalb.
2. Plant Pathology E377 (same as Agronomy 377): Diseases of Field Crops. Beginning on Thursday, September 21, 6:30 p.m., this course meets in the Farm Bureau Building, Edwardsville.
3. Ag Engineering E381: Farm Electrical Equipment. Meeting in the Freeport Senior High School Agriculture Building at 6:30 p.m., this course also begins on Thursday, September 21.
4. Ag Economics E324: Farm Operation. This course meets in 214 Schroeder Hall, Illinois State Normal University, Normal, beginning Tuesday, September 19, at 6:30 p.m.
5. Ag Engineering E311: Function, Application, Adjustment and Management of Farm Machinery. This course meets in Pekin High School, rooms 71 and 72, at 8:30 a.m. on Saturdays, beginning October 14. The class meets three Saturdays in the fall and five Saturdays in the spring.

Approved by the Board of Trustees  
of the University of Illinois

1954-55 - The University of Illinois is pleased to announce that the College will offer the following courses this fall:

Various factors in the course are being prepared in accordance with the needs of the student.

The course is:

1. Advanced Mathematics - The first of the series, beginning on Thursday, September 17, 8:30 a.m., in room 312, Old College.

2. Advanced Physics - The second of the series, beginning on Thursday, September 17, 8:30 a.m., in room 312, Old College.

3. Advanced Chemistry - The third of the series, beginning on Thursday, September 17, 8:30 a.m., in room 312, Old College.

4. Advanced Biology - The fourth of the series, beginning on Thursday, September 17, 8:30 a.m., in room 312, Old College.

5. Advanced English - The fifth of the series, beginning on Thursday, September 17, 8:30 a.m., in room 312, Old College.

6. Advanced History - The sixth of the series, beginning on Thursday, September 17, 8:30 a.m., in room 312, Old College.

7. Advanced Social Sciences - The seventh of the series, beginning on Thursday, September 17, 8:30 a.m., in room 312, Old College.

8. Advanced Fine Arts - The eighth of the series, beginning on Thursday, September 17, 8:30 a.m., in room 312, Old College.

Add Extramural Ag Courses Offered - 2

6. Ag Economics E305: Agricultural Policies and Programs.

Beginning Tuesday, September 19, this course meets in room 18, Springfield High School, at 7 p.m.

These courses will be offered if at least 15 students register during the first class meeting, according to Gardner. He adds that a registration fee will be charged.

Before registering, students should make sure that they have the needed prerequisites for taking the course.

For more information, write Karl E. Gardner, associate dean, 104 Mumford Hall, University of Illinois, Urbana.

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3. An American (100) - American (100) and program

beginning Tuesday, September 19, 1967 course runs to term 19, 1968

held High School, 11 V. 1967

These courses will be offered at least 12 months register

before the first class meeting, according to contract. No later than 1

registration fee will be charged.

before registration. Students should note that they may

be needed prerequisites for taking the course.

For more information, write Paul A. Carlson, Assistant Dean,

64 Mansard Hall, University of Illinois, Urbana.

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Synchronized Breeding Will Help  
Make AI Of Hogs Practical

URBANA--Synchronized breeding offers one of the few possibilities for making artificial insemination of hogs practical, believes Philip Dziuk, University of Illinois animal physiologist.

To make AI of hogs practical, the females to be bred must come into heat at the same time. Then the farmer can have them bred at the same time. Otherwise he must have each female bred as she comes into heat. This is more trouble than it's worth, since (1) hogs are not usually handled individually, (2) it's difficult to accurately detect heat and (3) hogs come into heat any time during a three-week period.

With synchronized breeding, however, females come into heat simultaneously. Here's the experimental procedure Dziuk is using to make this possible:

A female sex hormone is mixed with the feed going to sows and gilts. The hormone prevents them from coming into heat. When the farmer wants to breed the females, he returns them to a normal diet. Within a few days, most of the females come into heat at the same time. Then they can be bred.

Savings in time and labor are among the biggest advantages of synchronized breeding, says Dziuk. Farmers can plan their breeding and farrowing schedules for a predetermined five-day period instead of the 30 days it usually takes.

Offspring are more uniform in age--making them easier to handle, feed and sell. Farmers can also plan their breeding programs so that animals can be marketed at the most advantageous times.

Continued from page 99

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Dziuk and colleagues have been working for several years to perfect synchronized breeding. When they first started tests, they used mice. Results were so promising that they began testing a few hogs.

As the tests progressed, results became more and more encouraging. Dziuk also modified the method of synchronizing breeding to make it more effective. He explains that because of the hog's peculiar physiology the first method sometimes caused cystic ovaries.

To overcome this disadvantage, he is now feeding a much higher level of the female sex hormone in conjunction with other hormones. This year he has stepped up testing of these improved methods and is using hogs on several selected Illinois farms.

Frank Hinds, of the University's Dixon Springs Experiment Station, also tested synchronized breeding on a small flock of ewes last winter. Results were so successful that he plans to test a much larger flock this fall.

He uses the same method used for hogs except that only one hormone, the female sex hormone, is necessary. After this hormone is withdrawn from the feed, ewes come into heat simultaneously and can be bred within 48 to 72 hours. Unlike hogs, sheep do not develop cystic ovaries from the hormone.

Hinds found that synchronized breeding has many of the same advantages with ewes as with hogs--especially saving time and labor during lambing.

These and other factors have been studied for several years in  
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U. Of I. Veterinarians Fear  
Ergot Poisoning May Increase

URBANA--Alarmed by extremely heavy amounts of ergot found recently in wild grasses, rye and other cereals, University of Illinois veterinarians fear that ergot poisoning in cattle and swine will be greater this year than in the past.

"We've seen more ergot this summer than in the past several years," Dr. R. D. Hatch, U. of I. ambulatory veterinarian, said. "In fact, in the latest field examined, we had trouble finding normal instead of contaminated heads of grain."

Ergot is easily recognized, for it looks like jumbo black grains or seeds on early mature heads of infected grasses or grain. But, because ergot may be harbored in pastures, grain, straw or bedding, it is almost impossible to find.

"Some of the ergot grains we've found are the largest we've ever seen, Dr. Hatch said as he measured one sample with a ruler. It was three-quarters of an inch long.

According to Dr. Hatch, cattle grazing for 10 to 14 days on heavily infected pasture may develop an acute or "convulsive" poisoning. Muscular trembling, incoordination, convulsions and painful muscular contraction result.

"Animals with acute signs often recover with no serious after-effects if they are removed from the source of ergot," Dr. Hatch said. "If not removed, the animals may become delirious and die."

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The more common type of ergot poisoning is chronic. Exposed to a lower dosage of ergot over a prolonged period, cattle can develop gangrene of the feet, ears and tail. In swine, only the ears and tail can be affected.

Chronic ergot poisoning usually appears as an "epidemic," Dr. Hatch explained. Several animals may be affected simultaneously and in almost an identical manner. Cattle appear lame, but continue to have good appetites.

After gangrene develops, treatment is useless, according to Dr. Hatch. But immediate removal from ergot will prevent the disease from spreading.

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9/11/61

The most common type of error observed in research is a lack of control of the test, data and bias. In order to avoid this, the test should be standardized.

Another common error is the failure to specify the test, data and bias. In order to avoid this, the test should be standardized.

After standard development, treatment is applied, followed by a test. The test should be standardized.



FOR IMMEDIATE RELEASE

## Quarry Screen Not Satisfactory As Flooring For Hogs In U. Of I. Tests

URBANA--A University of Illinois swine researcher, A. H. Jensen, reports that quarry screen did not prove satisfactory as a flooring for hogs in recent tests.

This screen, which had one-inch-square openings, did not provide enough surface for the animals to stand comfortably. As the pigs grew heavier, the screen hurt their feet. Consequently they didn't move around much, wouldn't eat and made slower gains than usual.

The pigs on the screen were compared with similar pigs on concrete slabs and wood (fir) slabs. Pigs on the concrete and wood slats, gained equally well. Jensen added, however, that the concrete was much more durable than the fir. The pigs also chewed the fir.

Jensen and his co-workers are continuing the tests with slatted floors, since farmers are showing so much interest in them. Since the quarry screen didn't work, they are replacing it with a solid floor of green oak, which is more durable than fir.

Pigs on the solid green oak flooring will be compared with pigs on the concrete and fir slabs. So far the University has made no tests comparing the effects of solid wood flooring or slats.

A main advantage of slatted floors over solid floors is ease of cleaning. The pigs work the droppings through the slats and thus

-more-

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

City of Chicago, Illinois  
Published Weekly

Volume 44 - Number 10 - October 1955  
This issue contains 10 articles and 100 pages of material.

The following articles are included in this issue:  
1. The Role of the Physician in the Community  
2. The Use of the X-Ray in the Diagnosis of Tuberculosis  
3. The Treatment of Hypertension  
4. The Prevention of Cancer  
5. The Control of Diabetes Mellitus  
6. The Management of Asthma  
7. The Use of Antibiotics  
8. The Control of Infectious Diseases  
9. The Role of the Nurse  
10. The Use of the Laboratory

The following are the names of the authors of the articles:  
1. Dr. J. H. Green  
2. Dr. R. L. White  
3. Dr. M. S. Brown  
4. Dr. K. T. Black  
5. Dr. P. Q. Red  
6. Dr. N. O. Blue  
7. Dr. J. K. Yellow  
8. Dr. L. M. Purple  
9. Dr. A. B. Green  
10. Dr. C. D. White

The following are the names of the publishers:  
1. Dr. J. H. Green  
2. Dr. R. L. White  
3. Dr. M. S. Brown  
4. Dr. K. T. Black  
5. Dr. P. Q. Red  
6. Dr. N. O. Blue  
7. Dr. J. K. Yellow  
8. Dr. L. M. Purple  
9. Dr. A. B. Green  
10. Dr. C. D. White

The following are the names of the subscribers:  
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5. Dr. P. Q. Red  
6. Dr. N. O. Blue  
7. Dr. J. K. Yellow  
8. Dr. L. M. Purple  
9. Dr. A. B. Green  
10. Dr. C. D. White

keep themselves clean. Manure is easy to remove from under the floorings without interference from pigs or equipment.

Jensen has observed that pigs that have too much room don't stay as clean as pigs in smaller quarters.

Pens in which the University is testing the various floors are about 6 by 12 feet. Each pen houses 10 or 12 pigs, averaging 7 square feet per animal. The area is not changed during the growing period, which starts when pigs weigh about 50 pounds.

The concrete slats are 5 inches wide at the top and taper to 3 1/2 inches at the bottom. Jensen warns that rough edges can injure the pigs. The wood slats are 4 inches wide at the top and taper to about 3 inches on the bottom. Both concrete and wood slats are spaced one inch apart.





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 41 agricultural and industrial leaders who will serve on advisory committees for the coming year.

In announcing the appointments, Dean Howard emphasized the key roles the committees play in helping the college keep abreast of the agricultural needs in research, teaching and extension.

While our county extension staffs as well as the teaching and research staff members of the college are carefully studying Illinois' changing agriculture, the advisory committees will assist in pinpointing needs, Dean Howard said.

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.

Committee members usually meet once or twice each year with the various departments. Those appointed are as follows:

(Editor: See attached list.)

-30-

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9/18/61

FOR THE BOARD OF DIRECTORS

James H. ...  
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ADVISORY COMMITTEES  
College of Agriculture  
September 1, 1961

Agricultural Economics

Nye F. Bouslog, Vice President, Union National Bank, Macomb	3 years
John A. Edwards, Greenlawn Farms, Tolono	3 years
S. R. Golden, R. R. 1, Flora	2 years
James L. Humphreys, R. R. 1, Herrin	2 years
M. D. King, President, M. D. King Milling Company, Pittsfield	3 years
Harvey J. Schweitzer, Ph.D., Malta	1 year

Agricultural Engineering

H. V. Deffenbaugh, Farm Manager, Citizens National Bank, Paris	1 year
George W. Endicott, Ridgeview Farm, Villa Ridge	2 years
Albert Michael, Odell	2 years
A. D. Oderkirk, Manager, Babson Farms, Inc., DeKalb	3 years
F. Guy White, Bob White Farms, Girard	1 year

Agronomy

Martin Burrus, Burrus Seed Farms, Arenzville	1 year
Maxwell Crawford, R. R. 1, Milford	1 year
Dorsey Kirk (Master, Illinois State Grange), Oblong	3 years
Delbert Scheider, Red Oak	2 years
Paul Trovillion, Brownfield	2 years
M. Ward Reynolds, Greystone Certified Farm Seeds, Altona	3 years

Animal Science

J. R. Fulkerson, Fulkerson Farms, Jerseyville - Honorary Lifetime Member	
Lloyd Hanna, Roseann Farms, Farmersville (Manager, Gietl Bros., Springfield)	1 year
Henry A. Longmeyer, Greenfield	1 year
R. O. Nesheim, Manager - Livestock Feed Research, John Stuart Research Laboratories (Quaker Oats Company), 617 Main Street, Barrington	3 years
Ralph J. Thomas, Manager, Associate Hatchery Department, DeKalb Agricultural Association, Inc., Sycamore	2 years
Paul E. Woodson, Woodson-Fennwald Commission Company, National Stock Yards	3 years

Dairy Science

John C. Alison, Alison Farms, R. R. 2, Quincy	2 years
Homer Curtiss, Stockton	1 year
Harold E. Hartley, R. R. 5, Centralia	2 years
Ralph L. Nichols, Hebron	3 years
J. George Smith, Oswego	2 years

Forestry

K. Starr Chester, Technical Advisor, Alton Box Board Company, P. O. Box 276, Alton	1 year
A. C. Foley, T. A. Foley Lumber Company, Paris	3 years
Lorenz F. Tammen, Midwest Soil Testing Service, Box 168, Danforth	2 years

(over)

DIVISION OF AGRICULTURE  
 OFFICE OF AGRICULTURE  
 BUREAU OF PLANT INDUSTRY

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### Horticulture (Food Crops)

Frank Chatten, R. R. 2, Route 24, Quincy	2 years
George DeVries, DeVries Farm, 3560 W. 99th Street, Evergreen Park	1 year
L. A. Floyd, D.D.S., Bradford Bank Bldg., Greenville	2 years
Charles E. Geise, Manager, Agricultural Research Department, California Packing Corporation, P. O. Box 89, Rochelle	2 years
Ed Ridgway, Manager, Ridgway Farms and Greenhouses, P. O. Box 87, Herrin	1 year

### Horticulture (Floriculture, Ornamentals)

Walter E. Ahrens, Danville Gardens, 1307 Cleary Avenue, Danville	2 years
Harris H. Blixen, Woodlawn Gardens, 1407 St. Louis St., Edwardsville	2 years
George N. Corrigan, Capitol Florist Supply Co., 928 East Adams, Springfield	3 years
John Tures, 1500 Lee St., DesPlaines (Matt Tures Sons Nursery, R. R. 1, Box 313-A, Roselle)	1 year
B. O. Warren, Warren's Turf Nursery, 8400 W. 111th St., Palos Park	2 years

### General Committee

Harvey J. Schweitzer, Agricultural Economics  
H. V. Deffenbaugh, Agricultural Engineering  
Martin Burrus, Agronomy  
Lloyd Hanna, Animal Science  
Ralph L. Nichols, Dairy Science  
A. C. Foley, Forestry  
L. A. Floyd, Horticulture

Joseph Ackerman, Managing Director, Farm Foundation, 600 South Michigan Ave., Chicago 5	- at large
Paul C. Johnson, Editor, Prairie Farmer, 1230 West Washington Blvd., Chicago 7	- at large

Contributors (Total 1000)

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U. Of I. Veterinarians List Profitable  
Health Tips For Feeder Cattle

URBANA--Improper buying, transporting and handling of feeder cattle not only affect the health of cattle, but slash the farmer's profits, according to University of Illinois veterinarians.

Doctors J. R. Pickard and J. K. Winkler state that profits depend largely upon buying healthy feeder cattle and preventing sickness.

The veterinarians recommend buying healthy cattle just off the farm or ranch. Cattle that have been on the road or in the market for long periods may be weakened, exposed to disease and slow to get on feed. Also, calves showing nasal discharge, diarrhea or roughened hair-coats may be unhealthy.

Doctors Pickard and Winkler stress buying cattle of one origin. Research has proved that certain diseases run in certain herds. Thus the chance of introducing new diseases to your livestock increases when you buy from more than one herd.

The veterinarians feel that it is important to buy and move cattle during good weather so that the animals will not become chilled and susceptible to disease.

Stresses caused by shipping can be avoided, they say, by preventing conditions that cause overcrowding, fatigue and disruption of watering and feeding habits. Trucks or cars used for shipping should be disinfected, and the areas where the animals are unloaded should be sanitary.



During the first two weeks the cattle are on the farm, they should be observed carefully and handled only when absolutely necessary. Because handling may cause excitement and further weakening, such operations as dehorning and castration should be postponed for at least two weeks.

If animals seem depressed, breathe rapidly and have diarrhea or nasal discharge, they should be isolated until a veterinarian can examine them.

The veterinarian can also give vaccinations for IBR or red nose, blackleg and malignant edema if these diseases exist in the area. Vaccination against leptospirosis may be necessary if the newly purchased animals have been exposed to carrier animals, including swine.



U. Of I. Livestock Marketing  
Conference, October 14

URBANA--The University of Illinois College of Agriculture will serve as host to livestock marketing personnel at a special conference on Saturday, October 14. A program has been arranged that will be of special interest to livestock buyers, commission men, local market operators and others engaged in the livestock market business.

Those arriving early can visit the University swine and beef farms. Animal scientists will be on hand to report what they are doing.

The formal program gets under way at 10 a.m. in room 135 Animal Sciences Laboratory. O. B. Ross, head of the animal science department, will report on the influence of feeding and breeding on meat production. A. G. Mueller, U. of I. agricultural economist, will report on returns from various cattle-feeding programs. B. C. Breidenstein, head of the meats division, will discuss differences in beef carcass values.

During the lunch hour, M. B. Parsons, U. of I. Bureau of Business Management, will speak on "A Business Personality for Greater Volume." In the afternoon session, B. R. Knister, Federal-State Livestock Market News Service, will discuss interior market reporting in Illinois. A. G. Madsen, assistant in agricultural economics, will report on price and consist differences in Illinois hog markets. T. A. Hieronymus, professor of agricultural marketing, will discuss the impact of current government farm programs on the livestock business.

M. B. Kirtley, extension livestock marketing economist, invites all those engaged in the livestock marketing business to attend. The conference has been arranged for Saturday to accommodate many who could not attend during the week.



Hessian Flies Threaten Some Sections

URBANA--High Hessian fly populations in parts of Illinois may reduce yields of susceptible wheat varieties seeded early this fall, according to University of Illinois entomologist H. B. Petty.

The Illinois Natural History Survey pinpoints the west-southwestern and the southwestern sections of the state as trouble areas, Petty says.

There's also potential danger in the southeastern and east-southeastern sections.

While Hessian fly populations may be low in other sections, Petty says that farmers can prevent a build-up this fall by following control recommendations. And a fall build-up will lead to a larger spring generation and more severe damage, Petty warns.

Here are Petty's recommendations for controlling Hessian flies.

1. Destroy all volunteer wheat by mid-September.
2. When seeding early, use resistant varieties (Dual, Monon or Ponca) if they are adapted to your area.
3. If you do use a variety susceptible to Hessian flies, seed on or after the recommended seeding day. For the recommended seeding date in your county, see your farm adviser.
4. If you do seed susceptible varieties early, use the systemic insecticide phorate. Apply 10 pounds of 10 percent granules per acre with a grass-seeder attachment at fall seeding. Follow label precautions when working with this material. Petty explains that it is toxic to warm-blooded animals, including man.

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Proposed Change In Federal  
Milk Order Sound Economics

URBANA--The proposed change in the Chicago area federal milk marketing order is sound economics, a University of Illinois dairy marketing economist believes.

R. W. Bartlett points out that the suggested new pricing formula affects only milk going into manufactured dairy products. This new price would be based on Wisconsin and Minnesota manufacturing plant prices rather than some formula based on butter and milk powder prices.

The proposed market order change would improve prices of milk previously going into some manufacturing uses. This milk has usually been priced below its real value in recent years, Bartlett points out. The change would probably have little if any effect on the prices consumers pay for the dairy products made from this milk, he concludes.

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9/18/61  
NO





FOR IMMEDIATE RELEASE

## Wheat Sedimentation Test Will Not Affect Illinois Growers

URBANA--Illinois farmers and grain dealers are not likely to be affected by the recently announced quality premiums for hard wheat under the 1962 price support program, a University of Illinois grain marketing economist pointed out this week.

L. F. Stice points out that the premiums will be based on the quality of gluten in the wheat as determined by sedimentation tests. The wheats with strong gluten have high sedimentation values, while those with weak gluten have low sedimentation values.

Past price support programs have provided for premiums on hard wheats based on the protein content of the wheat. But protein content is not always an accurate measure of bread wheat quality, because some high protein wheats have a weak gluten. High-quality bread wheats should have a strong gluten as well as a high protein content.

Stice reports that the sedimentation test is considered the best single measure of bread wheat quality, and this test can be made outside quality testing laboratories. It is made by adding water and lactic acid to flour ground from a small quantity of wheat and after a short time making sedimentation readings.

The sedimentation values range from 3 for very weak wheat up to about 70 for the strongest wheat. Although detailed tests have not been recorded for Illinois-grown hard wheat, the USDA samples have ranged from 20 to 30. Variety and climate determine the gluten strength, but in Illinois climate is the determining factor. Premiums under the 1962 price support program are likely to be for wheat that has sedimentation values of 40 or above.

Illinois hard wheats are not likely to be strong enough to command quality premiums. Since there will be no discounts for low-quality wheat, the program is not likely to affect Illinois farmers and grain dealers, Stice concludes.



State 4-H Judging Team Works  
For National Contest

URBANA--Illinois' top four 4-H dairy judges join ranks next week for a practice judging tour through northern Illinois before representing the state in the National 4-H Dairy Cattle Judging Contest in Waterloo, Iowa, Oct. 2.

The four boys named to the state team are Ronald Boldt, 19, Seneca; Larry Mohr, 17, Normal; Dale Schultz, 19, Peoria; and Don Freese, 19, Sullivan. They are survivors of an original group of more than 2,000 Illinois 4-H'ers who have worked to make this year's state judging team.

Outstanding judging performances at the State 4-H Judging Contest in Urbana in July and at this year's Illinois State Fair earned the boys a berth on the state team.

Coach Jerry Cash, University of Illinois extension dairyman, says the boys will get together on Sept. 27 for three days of dairy judging practice on a number of northern Illinois farms.

The team then will compete in the national contest on Oct. 2 at the National Dairy Cattle Congress in Waterloo and later at the International Livestock Exposition in Chicago.

Last year Cash's Illinois team ranked second in the national contest and was the winning team at the International Livestock Exposition.

OFFICE OF THE DEAN  
OF THE UNIVERSITY OF CHICAGO

TRANS-ILLINOIS: THE 4-5 DAY JOURNEY, THE 1950s  
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FOR RELEASE AFTER 7 P.M., CST, OCTOBER 2, 1961

## Oregon Youth Wins FFA Award

WATERLOO, IOWA--Kenneth Long, 18, a member of the Oregon, Ill., Future Farmers of America chapter, tonight won the nation's top FFA dairy farming award.

Kenneth received a \$250 check from the Future Farmers of America Foundation during a presentation ceremony at the National Dairy Cattle Congress in Waterloo.

Three other farm boys received FFA Foundation checks of \$200 each as regional winners of dairy farming awards. They are Marvin Becker, 21, of Berne, New York, member of the Berne-Knox Central High School FFA chapter; Larry Lawson, 19, Route 4, Louisa, Virginia; and Ron G. Slagle, 18, Route 1, Custer, Washington, member of the Lynden High School FFA chapter.

Each of the four winners previously had received \$100 awards in state competition, and they shared a \$250 travel fund to pay their travel expenses to Waterloo. More than 5,000 Future Farmers received medals during 1961 as dairy farming award winners in their local chapters, and the foundation gave 45 of the \$100 state awards. The four honored at Waterloo were judged most outstanding of the entire group. The award is restricted to FFA members who were students of vocational agriculture attending high school during the current year.



Boxelder Bugs May Move In For Winter

URBANA--Fall is moving time for boxelder bugs. In fact, several may already have decided to make your home their winter residence.

It's annual invasion time for boxelder bugs, according to H. B. Petty, University of Illinois extension entomologist.

The bugs, black with reddish bands, are about 1/2 inch long when full grown. Their summer home is the female boxelder tree, and they dine heavily on seeds from the tree.

When the weather gets cooler, however, they make tracks for a cozy home or pleasant garage. They move into foundation cracks and into and under the clapboards and eaves, and from there they can work their way directly into your happy home. During a warm winter day you may see them sunning on foundations with a southern exposure. Or they may stake out a claim to your sun porch.

If you are looking forward to their visit, don't stock up on sweets and old clothing for them to munch. Boxelder bugs do not eat either food or cloth.

Removing female boxelder trees reduces the number of boxelder bugs, Petty said. Since this rather drastic control is too late for this fall's invasion, Petty suggests applying a 1/2 percent lindane spray or a 1/4 percent dieldrin spray to the point of run-off for a quick kill.

Apply either spray at one- to two-week intervals to the foundations and sides of the building as well as in a strip three feet wide around it. Spraying boxelder tree trunks and the ground around the trees is also recommended. Do not spray children's play areas, Petty cautions.

Inside, Petty says to use your trusty vacuum cleaner to hunt down the bugs. But he warns that spraying in the house should be done carefully and only in severe cases. Use a pyrethrin household spray for quick knockdown and kill. It's important to follow the directions for using any insecticide to the letter, Petty said.

CONSTITUTIONAL HISTORY OF THE UNITED STATES

CHAPTER I. THE CONSTITUTIONAL HISTORY OF THE UNITED STATES.

Several of the states had already adopted constitutions of their own.

1787

The first national convention was held in Philadelphia in 1787.

The delegates to the convention were chosen by the states.

The first draft of the constitution was prepared by James Madison.

The second draft was prepared by Alexander Hamilton and James Madison.

The final draft was adopted by the convention on September 17, 1787.

The constitution was signed by the delegates on September 17, 1787.

The constitution was ratified by the states in 1788.

The constitution was signed by George Washington on September 17, 1787.

The constitution was signed by the delegates on September 17, 1787.

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FOR IMMEDIATE RELEASE

## Illinois 4-H Livestock Judging Team Named for Kansas City Contest

URBANA--Five Illinois 4-H Club members will compete in the 4-H livestock judging contest at the American Royal Livestock Show next week in Kansas City.

Donald Walker, University of Illinois livestock extension specialist and team coach, reports that team members include Gerald Anderson, Leland; Gerald Carroll, Brimfield; Harold Heck, Aledo; Ronnie McCaskill, Timewell; and Charles Rayburn, Bondville.

Four boys will compete in the contest next Friday, October 13, and one will make the trip as an alternate. The contest consists of placing rings of beef cattle, sheep and hogs and giving reasons on one ring of each class of livestock.

This year's Illinois team has an enviable record to defend. Last year the Illinois team placed second, only one point behind the first-place team. In 1959 the team placed first.

This team will also compete at the 1961 International Livestock Exposition in Chicago after Thanksgiving.

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1911

Record Number Of College Of Agriculture Foreign Visitors

URBANA--A record number of foreign visitors took part in University of Illinois College of Agriculture programs this summer, according to R. W. Jugenheimer, assistant dean.

The 150 visitors during June, July, August and September were from more than 40 countries on five continents.

These visitors participated in regularly scheduled College of Agriculture summer classes, short courses taught by college staff members and seminar discussion groups, and met individually with faculty members on special problems.

During the past ten years, the College of Agriculture has hosted more than 2,000 foreign visitors from 89 countries. Last year it had 441 visitors from 64 countries, Jugenheimer said.

The University of Illinois ranks fifth among land-grant institutions in training foreign visitors. The arrangements are made through the U. S. Department of Agriculture and the International Cooperation Administration.

Since 1951, more than 90 college staff members have done agricultural work overseas.

Enclosed please find the following information

1. The enclosed contains a list of names of persons who are members of the Board of Directors of the University of Illinois, Chicago, for the year 1951-52.

2. The enclosed contains a list of names of persons who are members of the Board of Directors of the University of Illinois, Chicago, for the year 1950-51.

3. The enclosed contains a list of names of persons who are members of the Board of Directors of the University of Illinois, Chicago, for the year 1949-50.

4. The enclosed contains a list of names of persons who are members of the Board of Directors of the University of Illinois, Chicago, for the year 1948-49.

5. The enclosed contains a list of names of persons who are members of the Board of Directors of the University of Illinois, Chicago, for the year 1947-48.

6. The enclosed contains a list of names of persons who are members of the Board of Directors of the University of Illinois, Chicago, for the year 1946-47.

10/15/51

Rust Present In Merion Bluegrass

URBANA--If your Merion bluegrass has had plenty of moisture and nitrogen fertilizer, don't be alarmed by rust areas, says University of Illinois plant pathologist M. P. Britton.

Many Illinois home owners are concerned when reddish-brown or yellow areas show up in their lawns. The villain is rust--close inspection will show reddish-brown powdery blisters on the leaves. Rust has been prevalent in lawns making little or no growth mostly because of lack of water or fertilizer, says Britton. Although it's unsightly, rust won't kill well-established Merion bluegrass lawns.

Applying nitrogen fertilizer will produce new growth and lessen unsightly patches, but it won't kill the rust.

In heavily rusted lawns, Britton advises two or three applications of actidione seven days apart. Apply this fungicide immediately according to label directions. Then follow this treatment with good grass management, including fertilizer, water if needed and correct mowing heights.

Don't be fooled into believing you can "mow your troubles away," cautions Britton. Rust spores will be at work on the lower leaves of the grass plant. But, remember, unless you're bothered with the unsightly patches, rust won't kill Merion bluegrass if it's well established and you're managing it properly.



Know Your Mushrooms

URBANA--Abundant moisture and proper temperatures in Illinois have produced a bumper crop of mushrooms. Many front lawns provide an abundant and all-too-handy supply for the unsuspecting child or the unknowing adult.

Be sure about mushrooms, says University of Illinois mycologist D. P. Rogers. Have them identified by an expert or buy them from the store. Your life is worth more than a plate of mushrooms.

One good mowing will no doubt take care of mushrooms in your lawn, says University of Illinois plant pathologist M. P. Britton, since weather and moisture were "just right" for the present crop.

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The first of these is the fact that the  
 government has a long history of  
 intervention in the economy. This  
 has led to a number of problems  
 which have caused the economy to  
 stagnate. The government has  
 tried to solve these problems  
 but has failed to do so. The  
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 government has tried to solve  
 these problems but has failed  
 to do so. The result has been  
 a long period of economic  
 stagnation.

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COLLEGE OF AGRICULTURE and the  
DIVISION OF UNIVERSITY EXTENSION

FOR IMMEDIATE RELEASE

U. Of I. Agricultural Industries Forum, January 30-31

URBANA--The fourth University of Illinois Agricultural Industries Forum will be held January 30-31, 1962, Harold G. Halcrow, head of the agricultural economics department, announced this week.

The opening general session will feature outstanding speakers discussing economic growth for local communities. Speakers scheduled to appear are Vernon Ruttan, professor of agricultural economics at Purdue University; Anthony Downs, Real Estate Research Corporation, Chicago; and Mrs. Aryness Joy Wickens, economic adviser in the U. S. Department of Labor.

H. E. Gulley, U. of I. professor of speech, and A. V. Nalbandov, professor of animal physiology, will address other general sessions.

Special sessions for those interested in marketing dairy products, livestock, grain, poultry and eggs, feed, fertilizer and farm machinery and equipment are scheduled on Tuesday afternoon and Wednesday morning. Outstanding speakers are planned for these sessions.

Meals and rooms will be available in Garner House at the men residence halls. For a copy of the complete program, write to Department of Agricultural Economics, 305 Mumford Hall, Urbana. Everyone who attended last year's Forum will receive a copy of the program in December.

Faculty of Education

1960

THE FACULTY OF EDUCATION

UNIVERSITY OF TORONTO

EDUCATIONAL RESEARCH

EDUCATIONAL RESEARCH INSTITUTE OF TORONTO



FOR IMMEDIATE RELEASE

## Set New Termination Notice Period For Farm Tenants

URBANA--Illinois farm owners and tenants must now observe a new termination period for certain kinds of farm leases, a University of Illinois professor of agricultural law pointed out this week.

N. G. P. Krausz reports that, for cash-rent and crop-share leases not in writing, the landlord must deliver a written notice to quit not less than four months before the end of the lease year. So, for a lease beginning March 1, the notice to terminate must be given on or before the last day of October.

The new provision in the law apparently does not apply to livestock-share leases, Krausz points out. So the old law still stands for these leases and only a 60-day notice is required to terminate the lease.

The law provides for the following form by which landowners will notify tenants: "To A. B.: You are hereby notified that I have elected to terminate your lease of the farm premises now occupied by you, being (here describe the premises), and you are hereby further notified to quit and deliver up possession of the same to me at the end of the lease year, the last day of such year being (here insert the last day of the lease year.)"



Wild Tomatoes Aid Mechanical  
Harvest Development

URBANA--Wild tomatoes, which contain more than twice as much acid as their cultivated cousins, may well ease the tomato industry out of a dilemma brought on by mechanical harvesting.

A. E. Thompson, University of Illinois horticulturist, explains the problem this way: Mechanically picking tomatoes for processing is nearly a reality. But to get high yields from the tomato plant in one harvest means leaving the tomato on the vine longer than with hand harvest. The longer the fruit remains on the vine after ripening, the greater the loss of acidity.

Tomato processors are concerned. Why? Many have lost large amounts of money through spoilage and reconstituting tomato products to meet minimum acidity standards. And, Thompson points out, acid can't be added artificially because the Pure Food and Drug Administration considers it adulteration.

So, to lick the low-acidity problem, University of Illinois horticulturists introduced the wild tomato with high acid content. Crosses were made to standard varieties, and selections containing high acidity were crossed back to standard varieties to improve size and other horticultural characteristics.

At the present time, U. of I. horticulturists are breeding lines producing tomatoes with 50 percent more acid. Thompson reports that from research now in progress horticulturists hope to determine the inheritance of high acidity and to improve the methods of selecting and breeding for this high-acidity character, so important to the tomato industry.



FFA Foundation Donor Honored

KANSAS CITY, MISSOURI--Kraft Foods Company, Chicago, is one of five firms honored at the Future Farmers of America 34th national convention last night for their long-time support of this farm boys' organization.

These five firms received plaques of appreciation for their 15-year support of the Future Farmers of America Foundation, Inc. The Foundation provides the funds for the FFA's program of incentive awards. More than \$180,000 is budgeted for such awards each year. More than 300 business and industrial concerns, organizations and individuals support the foundation by annual contributions.

The FFA Foundation was established late in 1944. The donors honored this year have made annual contributions toward the awards program since 1946. As donors to the Foundation, they give their funds "without strings attached." All prizes and awards are given in the name of the Foundation rather than by a specific donor. Control of the Foundation rests in a board of trustees composed entirely of men who are working in the field of vocational education in agriculture.

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CONFIDENTIAL

Illinois FFA Chapters  
Receive National Awards

KANSAS CITY, MISSOURI--National recognition went to four Illinois FFA Chapters at the 34th annual national Future Farmers of America convention.

The Champaign, Maroa and Williamsfield Chapters received the "Gold Emblem" rating. The Sycamore Chapter, captured the "Silver Emblem" award.

The Gold Emblem award is based on the chapter's outstanding activities during the 1960-61 school year. Seventy-six chapters received this award in a special presentation last night (Oct. 12.) Earlier in the Day, Silver Emblem awards were presented to 48 chapters, and Bronze Emblem to nine chapters.

The Future Farmers of America has approximately 9,000 local chapters, with associations in 49 states and Puerto Rico. State entries in the national contest depend on state FFA membership. Staff members of the Agricultural Education Branch in the U. S. Office of Education, Department of Health, Education, and Welfare, Washington, D. C., served as judges.

UNITED STATES OF AMERICA  
DEPARTMENT OF JUSTICE

UNITED STATES OF AMERICA  
DEPARTMENT OF JUSTICE  
DIVISION OF INVESTIGATION

The Commission, after and will transmit to the President the  
and subject matter. The President, however, advised the Board that

and  
The Board of Directors is based on the results of a survey

conducted during the 1961-62 school year. The Board is composed of  
and this year is a special year for the Board (see page 15)

located in the City, after which the Board is to be organized  
to report to the Board.

The Board of Directors is hereby authorized to act on all  
matters, with the exception of all matters and those of the Board of Directors

to the National Council on Education for the Handicapped, and to the  
to the National Council on Education for the Handicapped, and to the

Department of Health, Education, and Welfare, and to the  
a report.

UNITED STATES OF AMERICA  
DEPARTMENT OF JUSTICE



FOR IMMEDIATE RELEASE

## Researchers Study Water Use

Each acre of Illinois land receives annually from 3,000 to 5,000 tons of water. About 80 percent of this water returns to the atmosphere, most of it in the form of evaporation.

University of Illinois soil scientists are looking for practical methods to reduce evaporation losses from the soil. Then water would rarely be problem in crop production, since most Illinois soils hold enough water to meet moisture losses through plant leaves, said M. B. Russell, University of Illinois agronomist.

Studies at the University of Illinois show that increasing the number of plants per acre did not greatly affect total water use when there was an ample water supply. As the plant population increased, transpiration losses--moisture lost from the plant surface--were greater, but they were largely balanced by smaller evaporation losses, explained Russell.

But when the soil surface had been dry for some time, evaporation was already so low that it could not be reduced much more. Increasing the plant population under such conditions increased water use to the point of becoming critical, Russell said.

Under normal conditions, 50 percent or more of the water lost during the growing season is due to evaporation from the soil surface. Cutting down on evaporation would mean more efficient use of both summer rainfall and subsoil-stored water. Reducing water losses in this manner would spare Illinois farmers some of the moisture management problems that were common in some northwest Illinois areas this summer.



Homecoming Breakfast Scheduled  
For Ag Judging Teams

URBANA--Judging team members who have represented the University of Illinois College of Agriculture will gather here for their first homecoming breakfast Saturday, October 21.

More than 600 students have been on the livestock, meats, dairy, poultry and dairy products teams during the past 50 years. Early response to the invitations indicates that more than 200 may return for homecoming.

Beginning at 9 a.m., the team members will gather at the University YMCA for breakfast. O. B. Ross, head of the animal science department, will serve as master of ceremonies. Earl Hughes, Woodstock, a member of the University board of trustees, will be the main speaker. He was a member of the 1928 national champion dairy judging team.

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Proceedings of the 1968 National Assembly  
for the 1968-69 Year

1968-1969—Judging team members who were registered for the  
University of Michigan College of Education will deliver papers for their  
presenting projects Saturday, October 21.

Note that 601 students are being in the University, and  
they, faculty and staff programs have during the past 10 years. They  
responses to the questions indicate that more work has been done for  
the past 10 years.

Beginning at 9 a.m., the new campus will gather in the  
University for breakfast. Dr. A. Ross, head of the social sciences  
department, will serve as master of ceremonies. Bill Brown, assistant  
dean of the University College of Education, will be the main speaker.  
He was a member of the 1968 national assembly held in New York.

1968  
1968  
1968

Technical Foresters To  
Meet At Dixon Springs

URBANA--Field trips to visit forestry experiments will highlight the 50th meeting of the Illinois Technical Forestry Association on October 26 and 27 at the Dixon Springs Experiment Station of the University of Illinois.

Tours will be conducted by A. R. Gilmore, in charge of forestry research projects at the Pope county station. The foresters will see growth of loblolly pine as related to soils and spacing, growth of white, red and jack pines in southern Illinois, and growth of shortleaf pine as related to degree of thinning and soil moisture.

Visiting foresters also will see areas marked for harvest, being harvested and already harvested in pine pulpwood thinning operations in the Shawnee National Forest in the vicinity of the Dixon Springs Station.

L. E. "Buck" Sawyer, director of conservation for the Midwest Coal Producers Institute, Terre Haute, Indiana, will discuss "Forestry in Southern Illinois in the Early '30's" at the Thursday evening banquet at the Station.

Department of Chemistry  
The University of Chicago

CHICAGO - Field trip to the University of Chicago  
The field trip to the University of Chicago  
on October 28 and 29 of the same year

There will be conducted by A. J. ...

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1954

Illinois 4-H Poultry Judging Team Named

URBANA--Four top Illinois 4-H members will represent the state at the Interstate Invitational 4-H Poultry Judging Contest November 25 in Chicago.

This event is held during the week of the International Livestock Exposition.

The four, winners of the final poultry elimination contest held at the University of Illinois, are Jim Fulkerson, Route 1, Manville; Don Collom, Ridge Farm; Glen Osborn, Hartsburg; and Arlyn McCormick, Shelbyville. First alternate is Leslie Beall, Route 2, Streator, and second alternate is Virginia Bohlen, Route 2, Moweaqua. Coach Sam F. Ridlen, U. of I. extension poultryman, is the team coach.

The contest tests the 4-H'ers' skills in judging live birds, and dressed fryers and turkeys, candling eggs, grading broken-out eggs and presenting oral reasons in production classes.

Last year the Illinois team took second place at the Interstate Invitational 4-H Poultry Judging Contest.



Illinois Future Farmers Attend  
National Convention

KANSAS CITY MISSOURI--Illinois farm boys wearing the symbolic FFA blue and gold jackets compete for awards at the 34th annual national Future Farmers of America Convention here this week.

Chuck Rayburn, Champaign, participates in the central regional FFA public speaking contest.

Fifteen Illinois future farmers are looking forward to receiving the American Farmer Degree. This is the highest degree in the organization. They are Dale Wayne Allen, Ashton; Jerry Dean Barth, Minonk; George Alvin Brown, Jr., Waverly; Gary S. Dameron, Towanda; Archie L. Devore, Mulberry Grove; Lynn Laible, Toluca; Lyle E. Moscher, Lanark; Lloyd Lee Nash, Martinsville; Daryl Franklin Pfoutz, Franklin Grove; Robert W. Post, Crescent City; Kenneth C. Steinmann, Waterloo; Edward Stokes, El Paso; Kermit L. Vollmar, Canton; Samuel E. Weston, Rossville; and Bill Wilson, Champaign.

Arthur L. Schick, Sterling, is one of 25 vocational agriculture teachers who will receive the Honorary American Farmer Degree. He has taught 25 years and has had 68 teams winning the Gold Emblem, or first placings, in state judging contests. Five of these teams represented Illinois in national contests, winning two Gold Emblem, two Silver Emblem and one Bronze Emblem ratings. His FFA chapter has been rated superior for 11 years. He has produced 29 State Farmers, one American Farmer and two State FFA officers.

ILLINOIS RIVER COMMISSION  
REPORT

CHAPTER I. THE ILLINOIS RIVER COMMISSION AND ITS WORK. The Commission was organized in 1889 under the act of Congress approved March 3, 1889, and has since that time been engaged in the study and investigation of the river and its navigation.

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Add Illinois Future Farmers - 2

Three members will play in the 1961 national FFA Band: Gary Bardelmeier, Routel, Marine; Jerry Hoult, Route 3, Chrisman; and Jerry Theobald, Route 1, Buffalo. The colorful national band provides music at various times throughout the convention.

Three Illinois judging teams will compete for national honors:

From Sterling, Dennis Eversole, Allen Shank, and Gary Hasselbacher, coached by Arthur Schick, will judge meat and meat products.

Roger Venhuizen, James DeWall, Paul Gilbert and alternate, Don Janssen, Polo, coached by Keith McGuire, will judge poultry.

A Clinton team of Richard Sams, Larry Martin, Eugene Murphy and Richard Griffin, alternate, will judge livestock. Clyde Fry is their coach.





FOR IMMEDIATE RELEASE

Special To Selected Publications

## Floricultural Sales Profitable In Mass Markets

URBANA--Many flowers and flowering plants can be marketed profitably through mass market outlets, says a University of Illinois marketing specialist.

Ross A. Kelly points out that in a recent study customers accepted such stores as a supermarket and a variety store as outlets for buying the type of floricultural products displayed there. These were various small potted plants and small bunches of cut flowers.

The results showed that the sale of floricultural products competed favorably with sale of other items in the stores.

Holidays and special occasions had the largest effect in increasing weekly sales. Quality was also an important sales factor in all floricultural products at each outlet.

These findings suggest that to encourage "everyday" use of flowers and plants, an adequate display of good-quality merchandise should be maintained at all times. To interest consumers and to stimulate repeat purchases, a selection of various kinds, varieties and colors of plants and flowers should be displayed. Changing the kinds of plants on display as well as using specific "holiday" plants is an advisable merchandising technique.

Other details on research in marketing floricultural products at variety stores and supermarkets are available in University of Illinois College of Agriculture Bulletin 675, "Floricultural Sales in Mass Market Outlets," by R. A. Kelly. Copies are available from 112 Mumford Hall, University of Illinois, Urbana, Illinois.

OFFICE OF THE DIRECTOR

MEMORANDUM FOR THE DIRECTOR

RESEARCH AND DEVELOPMENT

Reference is made to the report of the

committee on the progress of research and

development in the field of

the various projects and the progress of



FOR IMMEDIATE RELEASE

## Growing Market For Medium-Finish Beef; Prime Beef Demand Limited

URBANA--Mass merchandising by food retailers has created the broadest market for beef with medium finish, a University of Illinois livestock marketing economist reports.

M. B. Kirtley points out that nearly 90 percent of all retail food sales are handled by chain and independent stores with centralized buying and merchandising programs. These firms look for a product that carries consistent quality from week to week and will be the same in all stores under the same management.

Most consumers prefer beef from cattle with only a moderate amount of finish. So the broadest market has developed for cattle grading high good to low choice and weighing from 1,000 to 1,100 pounds.

Kirtley believes these mass merchandising programs have benefited the entire beef cattle industry by expanding the market for beef. Consumption per person is near an all-time record high.

The market for highly finished prime beef has become more specialized. The main outlets are hotels and restaurants, Kirtley reports. But these outlets also tend to be moving toward the pattern of the retail trade.

A survey made by University of Illinois marketing economists in Chicago showed that less than 10 percent of the hotels and restaurants used only prime beef. Only about one-third used any prime beef. About 90 percent used some choice beef. Restaurant and hotel meat buyers are also concerned with waste from excessive finish.

Producers of heavy cattle with high finish face a market that can easily be oversupplied, Kirtley points out. The cattle feeder looking for the broadest, most dependable market will market cattle with moderate weight and finish that satisfies the demand of the most buyers.

THE SECRETARY OF DEFENSE

Security and Control of Information  
and the Freedom of Information Act

When the Government is required to disclose information, it is often necessary to determine whether the information is exempt from disclosure under the Freedom of Information Act. The Government has a duty to disclose information unless it is exempt from disclosure under the Act.

The Freedom of Information Act provides that information is exempt from disclosure if it is exempt from disclosure under the Act. The Act provides that information is exempt from disclosure if it is exempt from disclosure under the Act. The Act provides that information is exempt from disclosure if it is exempt from disclosure under the Act.

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SECRET

Research Shows No Advantage For  
Stilbestrol In Dairy Herds

URBANA--Dairy research indicates that stilbestrol has no effect on either production or feed utilization in dairy cows. Recent reports also indicate no advantage for stilbestrol in fattening dry cows for market or in stimulating growth rates in dairy heifers.

University of Illinois dairy scientist Leo Fryman points out that small amounts of stilbestrol--10 to 15 milligrams per cow per day--can be fed with the grain mixture with no adverse effects on conception, gestation or estrus cycle.

However, feeding such low levels of the growth stimulant will not boost production or feed utilization efficiency. And cows fed higher levels of stilbestrol in a Kansas study were subject to abortion.

Fryman says Cornell University studies show that stilbestrol will stimulate weight gains in dry cows. But the research also indicates that the practice is not profitable.

University of Colorado research shows that safe amounts of stilbestrol will not stimulate growth in dairy heifers. The Colorado researchers fed 10 milligrams of stilbestrol per day with no growth-stimulating effects. Fryman says higher levels of stilbestrol may cause breeding problems in open heifers.



Scientists Fight Fire Blight

URBANA--Plant breeders in the University of Illinois horticulture department continue to fight a relentless battle against fire blight--the scourge of the commercial pear industry.

Because of the disease, it is almost impossible to grow high-quality pears in Illinois on a commercial basis, reports H. C. Barrett, in charge of much of the pear research conducted at the University of Illinois.

At present there is no good chemical control for fire blight, so the only practical method of combating the disease is to grow resistant varieties. And this is a long-time process, Barrett points out. So far, a variety called Farmingdale--a seedling pear--offers one of the best sources of resistance, but the quality of the fruit is poor, so the variety has no commercial value.

To enhance the quality of pears and yet combine fire-blight resistance means cross-breeding. More than 10,000 seedlings from 160 controlled crosses have been planted in the orchard and nurseries at Urbana, where the most promising types are being selected. Over 30 selections combining fire blight resistance with desirable fruit and tree characteristics will be observed and tested further, reports Barrett

As in most research, there is no quick or easy answer. But to date results have been encouraging, and it seems reasonable to expect that fire-blight-resistant, high-quality pears will be grown in Illinois before too many years.



Illinois Youth Competes In Tractor  
Operators' Contest At Texas State Fair

URBANA--Illinois is sending her best young tractor operator to Dallas, Texas, to compete in the 5th Annual Central and Western 4-H Tractor Operators' Contest October 15-17.

Terry Warren, 20, Route 4, Sullivan, Hopes to drive his tractor ahead of 22 other state champions to victory in the regional contest held during the Texas State Fair in Dallas.

Young Warren won the right to represent Illinois by topping county, district and state contests. He proved his expertness in tractor operation and maintenance as he won the state championship at the Illinois State Fair August 18.

Warren has had plenty of experience in driving a tractor on his dad's 900-acre farm in Moultrie County. A full-time farmer, spending some 1,200 hours doing tractor field work, Warren is also president of the Moultrie County 4-H Federation.

The operators' contest includes a written examination, a practical trouble-shooting test, tractor safety and driving tests with two-and four-wheeled vehicles attached. Scoring is on a penalty point system, with the low-scoring individual the winner. Trophies will be awarded to the four high individuals in the Dallas event.

Contestants and their coaches arrive in Dallas on Sunday, visit the fair and participate in contest events on Monday and Tuesday. The driving events are scheduled for Tuesday, October 17, and awards will be given at a banquet that evening.

The Standard Oil Foundation, Inc., is sponsoring Warren's award trip.





FOR IMMEDIATE RELEASE

## Government Farm Program Will Affect Livestock Business

URBANA--The present government farm programs will affect the livestock business in the months ahead, a University of Illinois agricultural economist has pointed out.

T. A. Hieronymus believes that the 1962 spring pig crop will show only a small increase--less than usual for the current phase of the hog cycle.

Cattle feeders may finish their cattle to lighter weights, particularly if they must feed corn eligible for the \$1.20 support price.

The longer range government policy will have a greater effect on the livestock industry. Should the 1962 corn support be raised to encourage more participation in the feed grain program, then feeding would be curtailed. To boost feed grain use, price must be kept down, Hieronymus emphasizes.

Curtailed feeding could mean reduced volume through livestock market channels, higher unit costs and reduced profits.

Present high costs of the program will require government policy-makers to choose one of two courses. Either more stringent production controls must be imposed, or prices must be determined on the market. The 1961 and 1962 programs make it more difficult to return to the free market, he concludes.

Hieronymus spoke before a conference of livestock marketing personnel on the U. of I. campus this past week end.



Veterinarians Warn Of Dangers  
With New Crops

URBANA--An open bin of beans, wheat or corn can be as deadly to livestock as an epidemic and so costly that the owner could lose every cent of profit he expected from harvesting, warn University of Illinois veterinarians.

Each year veterinarians relate cases that illustrate just how determined cattle can be. They will wander through broken fences, open unlocked gates and walk a mile seeking the delicacies of harvest time.

In some cases fences are in good repair and the farmer will feel safe in piling grain crops in the barnyard. But somehow the cattle get into these crops, gorge themselves and die.

Various grains react differently in an animal, according to Dr. J. K. Winkler, extension veterinarian. Dry beans will expand to several times their original size. If the animal has gorged itself, this expansion can rupture the digestive tract, causing an agonizing death.

Death from overeating wheat, corn and other grains is caused by toxins or poisons produced by chemical changes in the animal's stomach, Dr. Winkler said. Bloat can occur in any case, he added.

Veterinarians call this tragedy bovine founder or acute indigestion. The symptoms are overloading of the stomach, gas formation or bloat, poisoning and agonizing pain due to swelling of stomach and intestines. The result is death due to bloat, absorption of poison or rupture.

Once signs appear, chances for saving the animal are reduced, Dr. Winkler said.



FOR IMMEDIATE RELEASE

Ag Winter Short Course Announced

URBANA--The University of Illinois College of Agriculture's Winter Short Course is set for February 5 to March 16, 1962, according to Warren Wessels, assistant to the dean.

The winter short course, to be held on the Urbana campus, offers young farmers an opportunity to attend college classes for six weeks of study, Wessels said. The courses present up-to-date information on farm problems and techniques in a fast-changing agriculture.

Most of the students are young farmers who wish to expand their knowledge about agriculture. Anyone 18 years old or older may apply; ages have ranged up to 65 years. Women also may attend.

Besides attending discussion and laboratory sessions, short course students take part in many campus activities.

Short course costs range from \$198 to \$238, including tuition, fees, books and supplies, housing and meals.

A number of \$100 scholarships are provided by the Illinois Future Farmers of America Foundation and member banks of the Illinois Bankers Association.

Dean Louis B. Howard, College of Agriculture, says: "Our Winter Short Course provides a fine opportunity for young farmers to keep abreast of recent developments in agriculture through 21 interesting and helpful courses."

Last year's enrollment of 102 was a sharp increase from 84 in 1960 and 76 in 1959. Forty-four Illinois counties and the state of Pennsylvania were represented at the 1961 Short Course.

For more information, write Warren Wessels, Assistant to the Dean, 104 Mumford Hall, College of Agriculture, Urbana, Illinois.

UNIT - The history of the witness stand is a subject of interest to many people. It is a subject that has been discussed in many different ways. The witness stand is a subject that has been discussed in many different ways.

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Hannah Tells How Law  
Protects Livestock Owners

URBANA--Law protects livestock owners and the public by combating indifference, ignorance, unconcern and vested interests, Prof. Harold Hannah told conferees attending the Illinois Conference and Extension Short Course for Veterinarians. The two-day conference began yesterday at the University of Illinois College of Veterinary Medicine.

Hannah, professor of veterinary law at the U. of I., specifically mentioned five protective law functions.

The first, he said, is the enforcement and control of local measures. Quarantine, isolation, use and movement of animals and destruction of animals and property are all tools that the law employs, Hannah explained.

Another function is to improve legislation on animal disease. Hannah cited the 1955 slaughterhouse law, which was replaced by a meat and poultry inspection law in 1959. He described the 1959 law as being broader and meshed with federal and municipal inspection laws.

A third function of law is to improve regulatory process and thus avoid situations like the cranberry controversy. Explained Hannah, "Law attempts to blend the interests of scientists, professionals, producers and handlers without leaving the public holding the bag."

Law also makes full and proper use of treaty power by developing sound federal orders and import-export restrictions. The purpose of these restrictions, he said, is to protect the public without hampering trade.

A fifth function is to improve the administrative structure for disease control and public health activity. Administration begins at the township level and continues through the county, municipality and state. Superimposed on this is federal administration.

This complicated structure sometimes sacrifices logic and frequently results in duplication, Hannah said.

1941-42 Annual Report of the Board of Directors

The Board of Directors has the honor to acknowledge the cooperation and assistance of the various departments and individuals who have made the past year so successful. The financial statement for the year ending December 31, 1941, is herewith submitted for your information. The total assets of the Corporation at the end of the year were \$1,234,567.00, an increase of \$123,456.00 over the year ending December 31, 1940. The total liabilities at the end of the year were \$567,890.00, an increase of \$56,789.00 over the year ending December 31, 1940. The net assets at the end of the year were \$666,677.00, an increase of \$66,667.00 over the year ending December 31, 1940.

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Ten Illinois 4-H'ers Win  
National Safety Congress Trips

CHICAGO--Ten Illinois 4-H'ers are attending National Safety Congress this week, October 16 to 20, because of their outstanding work in 4-H safety activities.

More than 250 youth delegates representing Future Farmers of America, 4-H, Farm Bureau Young People, Grange Youth and Farmers Union Youth are at the sessions, according to University of Illinois 4-H specialist William Stone.

The Illinois winners are sponsored by the Country Mutual Insurance Company. Winners from Illinois are Darleen Wennlund, Lafox; Lowell Wishop, Route 3, Rockford; Diana Sperry, Route 2, Macomb; James Conway, Route 1, Berwick; Carolyn Coffey, Odell; Marjorie Pruitt, Route 1, Raymond; Gordon Broom, 609 E. Vine Street, Greenville; Joyce Walter, Metropolis; Donnie Beal, Route 2, Mt Vernon; and Charles Boes, Route 1, Danville.

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10/16/61  
NO





FOR IMMEDIATE RELEASE

## Stalk Rot Strikes Corn

URBANA--Stalk rot, described as the worst in years, means additional harvesting headaches this year to Illinois farmers. The sooner they get into the field, the less their harvesting losses will be, warn University of Illinois agronomist Bill Pardee and plant pathologist Mal Shurtleff.

Stalks have been disintegrating for some time now. With this progressively worsening situation, any wind at all will increase losses, says Pardee. In many fields one-fifth or more of the stalks are broken. About two-thirds of the fields in the state now show 10 percent or more breakage. Damage is heaviest in central Illinois, but fields in all areas of the state show some damage from stalk rot, says Pardee. As a result of disintegrated stalks, farmers will have more than the usual headaches with clogging pickers. So it will take a little more time. A man can't win against a machine. The farmer who stops to unclog it will still be here after harvest.

Shurtleff reports that Gibberella appears to be causing most of the stalk rot. This type causes a more complete collapse than other types. Apparently growing conditions were just right this year. Early growth; high fertility, especially large amounts of nitrogen in relation to other elements; high population of corn plants--all these factors

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FOR INFORMATION ONLY

UNITED STATES DEPARTMENT OF THE INTERIOR

AGENCY—State and, included as the word in years, more

Additional information included this year in Illinois, Illinois, the

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of each locality in Illinois, including all records and other papers

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Add Stalk Rot - 2

coupled with dry weather in August and early September set the stage for the stalk rot invasion. Any factor that causes stress tends to increase the possibility of stalk rot, Shurtleff reports.

And if stalk rot wasn't enough, central Illinois farmers report much "down corn" but find no evidence of stalk disintegration--the tell-tale sign of stalk rot. Pardee says much of this damage is due to rapid growth which produced a weak stalk. When hot, dry weather and winds from hurricane Carla struck, the corn broke. Much of the corn broken by strong winds will be difficult to harvest, since it didn't mature properly. In many cases cobs have split and shredded. Picking will be hazardous under these conditions. Most of the weak-jointed corn hit by Carla's winds were thickly populated plantings of 20,000 or more plants per acre.

So whether it's stalk rot or weak stalks coupled with hot, dry weather that's causing down corn, the longer it's left, the worse corn harvesting will be, warns Shurtleff. It will pay to get into the field as soon as the corn is dry enough--21 percent or lower, depending on facilities for drying and storage--Pardee adds.

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10/19/61



FOR IMMEDIATE RELEASE

COLLEGE OF AGRICULTURE and the  
DIVISION OF UNIVERSITY EXTENSION

U. Of I. Farm Structures Day  
Set For Nov. 16

URBANA--Reports on experimental precast concrete buildings and slatted floors for livestock shelters highlight this year's University of Illinois Farm Structures Day program Thursday, Nov. 16.

Other high-interest features of the program include discussions on long-span wood construction, lumber rigid frames, coated fiberboard lining for wet corn storage and applications of concrete for livestock buildings.

Program chairman Don Jedele, U. of I. agricultural engineer, points out that slatted floors for livestock buildings are receiving a lot of attention throughout the state.

U. of I. researchers have been experimenting with wire mesh and concrete and wood slat flooring for swine. Results of this research will be presented during the Farm Structures Day program.

Of equal interest will be the report on the new coated fiberboard lining for wet corn storage. The new liner is a heavy, waterproof fiberboard coated on each side with a layer of polyethylene film and aluminum foil. Researchers say the material is easy to cut, crease or bend to fit the interior of any crib or bin.

Registration for Farm Structures Day begins at 8:30 a.m. The program starts at 9:10. 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.

MEMORANDUM FOR THE RECORD

TO: THE BOARD OF REGENTS

DATE: JANUARY 15, 1964

RE: The Board of Regents has received a report from the Department of Education regarding the progress of the program to improve the quality of instruction in the state. The report indicates that the program is making significant progress and that the quality of instruction is improving throughout the state.

The Board of Regents has reviewed the report and is pleased to note the progress that has been made. It is recommended that the Board continue to support the program and that the Department of Education continue to report on the progress of the program to the Board.

The Board of Regents has also reviewed the report regarding the quality of instruction in the state. The report indicates that the quality of instruction is improving throughout the state. It is recommended that the Board continue to support the program and that the Department of Education continue to report on the progress of the program to the Board.

1964

Farmers May Not Favor Milk Marketing Quotas, Economist Believes

URBANA--Proposals to establish a milk marketing quota for each producer may not have the support of a majority of the milk producers themselves, a University of Illinois dairy marketing economist believes.

R. W. Bartlett cites the results of a recent survey among Michigan milk producers. This survey showed that 63 percent of the members opposed quotas and 71 percent opposed freezing of production bases. On another question, 59 percent opposed transferring or selling bases.

The most common reasons these milk producers gave for opposing a quota plan was that it would hurt small farmers and new farmers. Those who opposed quotas or freezing of bases believed that such moves would only help dairymen who were well established or who had money to invest.

The proposed quota system would attempt to raise prices by setting a quota for each dairy farm. Those who produced more than their quotas would receive a very low price for this milk. Bartlett believes that raising prices through a strict quota system would result in increased use of margarine in place of butter, increased use of mellorine in place of ice cream, more use of chicken and other low-priced meats in place of cheese, stepped-up use of filled milk in place of evaporated milk and substitution of lower cost fresh and sterile concentrated milk for fresh whole milk.

Such a plan might raise prices temporarily, but in the long run the result would be lower incomes for dairy farmers, Bartlett concludes.



Students From 24 Countries Attend  
College Of Agriculture

URBANA--Students from 24 foreign countries are College of Agriculture undergraduates this semester, according to Associate Dean Karl E. Gardner, University of Illinois.

Thirty students from England, Israel, West Germany, Turkey, Korea, Vietnam, Nicaragua, El Salvador, China, Czechoslovakia, Aden, Nigeria, Jamaica, Tanganyika, Japan and other countries have enrolled.

This is the first year the college has had this number of foreign students as undergraduates, Gardner said.

About 1,000 foreign students are attending the University of Illinois. Almost 44,000 students from other lands will study at colleges in the United States this year, Gardner reports.

The agricultural students are aiming for college degrees in such fields as food technology, home economics education, dairy, forest production, agricultural science and general agriculture or home economics, Gardner said.

Since these students come from such different backgrounds and types of agriculture, students from Illinois can learn about foreign customs, laws, agricultural trade and geography by visiting with a foreign classmate.

About 50 foreign graduate students at the University are doing advanced work in agriculture.



Elect Officers For U. Of I.  
Veterinary Alumni Association

URBANA--A Blomington veterinarian was elected president of the University of Illinois College of Veterinary Medicine Alumni Association during its annual meeting Friday.

Dr. Peter Smith of Bloomington will serve as president for the 1961-62 term. Other newly elected officers are Dr. Arnold Taft, Olney, president-elect; Dr. H. P. Hobson, Carrollton, treasurer; and Dr. Erwin Small, Champaign, re-elected executive secretary.

Dr. J. D. Kerr, Decatur, was elected to the executive board, while Dr. L. C. Helper, Champaign, will serve as liaison officer between the Veterinary Alumni Association and the University of Illinois Alumni Association.

After the meeting, 125 alumni and faculty attended a dinner-dance at the Urbana Golf and Country Club.

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10/23/61





FOR IMMEDIATE RELEASE

## Group Plan Could Revolutionize Veterinary Practice

URBANA--The group veterinary practice plan proposed at the recent University of Illinois Conference for Veterinarians could revolutionize the role of today's practicing veterinarian.

These changes would definitely benefit the livestock owner, according to Dr. J. F. Knappenberger. Formerly a practicing veterinarian in Nebraska, Dr. Knappenberger is now president of Haver-Lockhart Laboratories in Kansas City, Mo.

Dr. Knappenberger's plan calls for each member of the group to specialize in one type of animal. The men would maintain their own mixed animal practices, but would be free to consult with the specialist.

"Specialization is absolutely necessary," Dr. Knappenberger explained, "because the field of veterinary medicine is so broad that no man can possibly know everything."

Each veterinarian would maintain his own office, but major work, such as surgery, would be performed at the central office and clinic. This office would be equipped with finer facilities than the individual veterinarian can afford, Dr. Knappenberger said, for the group would consolidate their capital.

The clinic or hospital would house a diagnostic laboratory, a pharmacy and a business office with technologists trained to do this work. This would free the veterinarian to improve his ability through constant study.

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FOR IMMEDIATE RELEASE

Group Will Study  
Veterinary Practice

CHICAGO—The new program for the study of the  
University of Illinois College of Veterinary Medicine  
of Illinois, the role of today's practicing veterinarian.

These changes would definitely benefit the livestock owner,  
according to Dr. W. W. Knappe, formerly a practicing veterinarian  
in Illinois. Dr. Knappe, who is now president of the American  
veterinarian in Kansas City, Mo.

Dr. Knappe's plan calls for each member of the group  
to specialize in one type of animal. The group would study  
mixed animal practice, but would be free to consult with the specialists.  
"Specialization is absolutely necessary," Dr. Knappe  
explained, "because the field of veterinary medicine is so broad that  
no one can possibly know everything."

Each veterinarian would maintain his own office, but would  
work, both as a specialty, would be performed at the central clinic and  
other. This office would be equipped with their facilities from the  
individual veterinarian was asked, Dr. Knappe said, for the  
group would coordinate their efforts.

The clinic at hospital would house a diagnostic laboratory,  
pharmacy and a business office with technicians trained to do this  
work. The world free the veterinarian to improve his ability through

Advantages of specialization and better facilities should not cost the livestock owner "any more than he pays today." In fact, he might pay less, according to Dr. Knappenberger.

The group practice plan was introduced as a possible measure against some of the ills of veterinary medicine. Physical demands of a practice are too great. Explained Dr. Knappenberger, "After ten years in the business, a veterinarian burns out--he can't take it any more."

Dr. Knappenberger believes the plan would also aid the profession in keeping up with integrated developments in agriculture.

The greatest problem would be the human element. The success of the plan would depend on the ability of individual veterinarians to work closely together, Dr. Knappenberger said.



National Swine Conference In  
St. Louis, November 9-10

URBANA--Top authorities from all segments of the swine industry will gather in St. Louis November 9-10 for the fourth national swine industry conference.

Producers, market representatives, processors and research workers will discuss some of the most pressing problems now facing the industry. Such topics as improving the demand for pork, producing to meet consumer preferences, artificial insemination, hog cholera eradication, trends in hog marketing, preventing swine diseases, new ideas in equipment and manure handling, and feeder pig production are scheduled for discussion during the two-day meeting.

University of Illinois livestock extension specialists H. G. Russell and G. R. Carlisle urge all Illinois hog producers to attend the conference. The conference presents more top swine authorities than will appear at any meeting in the state for several years to come.

Illinois participants on the program include A. H. Jensen, U. of I. animal scientist; Don Jedele, U. of I. agricultural engineer; O. B. Ross, head of the U. of I. animal science department; Dr. J. D. Ray, White Hall; Alvin S. Lehmann, Pleasant Plains; W. D. Goeke, Hampshire; LaVerne Johnson, DeKalb; and Dr. Charles Greene, Whitchell and Clifford Cox, J. Russell Ives, Harvey Dastrup, and Merle LeSage, Chicago.

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Editorial Board: R. M. Waymouth, Chairman



FOR IMMEDIATE RELEASE

## Regular Corn Best For Silage In U. Of I. Tests

URBANA--Results of recent University of Illinois tests indicate that dwarf corn has suffered another setback in its uphill struggle to replace regular corn silage in the dairyman's feeding program.

U. of I. dairy researchers found no advantage for dwarf over regular corn in silage tests with dairy cattle. The big problem with the miniature corn was that it couldn't match regular corn in tons of forage produced per acre.

U. of I. dairy researcher John Byers points out that, pound for pound, dwarf corn has significantly more total digestible nutrients than regular corn. The miniature corn also is much easier to harvest and will stand up against more punishment from wind and rain.

But these advantages are offset by the dwarf's lower forage-producing ability. Byers points out that the majority of farmers still must be concerned with maximum TDN produced per acre.

Byers first compared dwarf and regular corn for silage in 1960. He noted a lower forage yield per acre for dwarf--5.54 tons of dry matter per acre compared with 6.59 tons for regular corn.

However, the U. of I. researcher was impressed by the higher TDN figures for dwarf corn--77.7 percent compared with 70.88 percent for the same amount of regular corn.

-more-

THE UNIVERSITY OF CHICAGO

## Add Regular Corn Best For Silage - 2

This year Byers boosted plant population from 16,000 to 21,000 per acre for both types of corn, feeling that the higher population might help dwarf compete in tons of forage produced.

The results: The regular corn showed an even bigger production advantage over dwarf. More specifically, the green forage yield rose 1.2 tons per acre for the regular corn and actually dropped for the dwarf corn.

Byers points out that increased competition for light at heavier planting rates may have been a factor in dropping dwarf corn forage yields in the tests.

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10/30/61



UI Dairy Research Shows Equal Feeding  
Value For Haylage, Silage, Hay

University of Illinois dairy research comparing haylage, silage and hay showed no significant difference in either dry matter consumption or milk production for the three forages in tests with dairy cows this summer.

U. of I. dairy researcher John Byers says the three forages also produced nearly the same amount of dry matter per acre in the field.

Byers points out, however, that the forages were all excellent quality. None of the hay in the tests was hurt by rain before researchers put it in the barn. Any untimely rain might have put the hay at a disadvantage.

Byers says the research answered another question that has been bothering dairymen since haylage first hit the forage spotlight in 1957. It showed that the new forage can be stored in conventional tower silos.

U. of I. researchers stored haylage averaging 50 percent dry matter in a 10 x 22 foot conventional tile silo. They noticed little spoilage, and cows ate the forage well.

For best storage results in conventional silos, Byers recommends that the haylage be finely chopped and tramped well in the silo. He also suggests that dairymen pack high-moisture forage in the top of the silo to insure a good seal.





FOR IMMEDIATE RELEASE

## Farm And Home Science Show To Mark 100 Years Of Progress

URBANA--The University of Illinois College of Agriculture will celebrate the centennial of land-grant colleges and universities with a Farm and Home Science Show September 7-8, 1962, Dean Louis B. Howard announced this week.

Advance planning is already under way for this new and different event, which is expected to draw the largest attendance of any activity on the College of Agriculture campus next year.

The two-day program will feature demonstrations and exhibits at various University research farms and laboratories. All departments of the College of Agriculture will participate. Program centers may include the swine, beef, poultry, dairy, agronomy, horticulture, agricultural engineering, veterinary medicine and forestry research farms, Bevier Hall home economics laboratories and the small and large animal clinics of the College of Veterinary Medicine.

The Farm and Home Science Show will replace the Farm and Home Festival, held in late March or early April during recent years. The fall date will permit a more complete showing of the research work under way with field and fruit crops, tree plantings, livestock and mechanization.

K. A. Kendall, professor of dairy science, will serve as general chairman of the event.

The centennial of the land-grant colleges and universities will be observed in 1962. On July 2, 1862, President Lincoln signed the Morrill Act. This law authorized grants of land to states to establish colleges and universities teaching agriculture and the mechanical arts.

FOR IMMEDIATE RELEASE

U.S. DEPARTMENT OF AGRICULTURE  
WASHINGTON, D.C. 20250

WASHINGTON, D.C. (AP) - The Department of Agriculture today announced a new program to help farmers and ranchers improve their marketing and sales efforts. The program, called the "Marketing and Sales Improvement Program," will provide technical assistance and training to help these producers better understand market trends and consumer needs.

The program is a direct result of the Agricultural Marketing Act of 1986, which authorized the Department to develop and carry out a program to assist producers in their marketing and sales efforts. The program will be administered by the Agricultural Marketing Service, which is part of the Department's Economic Research Service.

The program will provide technical assistance and training to help producers better understand market trends and consumer needs. This assistance will be provided through a variety of means, including one-on-one consultations, group workshops, and the development of marketing and sales plans. The program will also provide information on market trends and consumer needs through the use of market research and analysis.

The program is a direct result of the Agricultural Marketing Act of 1986, which authorized the Department to develop and carry out a program to assist producers in their marketing and sales efforts. The program will be administered by the Agricultural Marketing Service, which is part of the Department's Economic Research Service.

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11/10/86

Ag Graduates Move Into Over 175 Jobs

URBANA--A University of Illinois College of Agriculture graduate can expect to choose a career from more than 175 fields, according to Associate Dean Karl E. Gardner.

Results of a survey mailed to the college's 6,511 male agricultural graduates show the many opportunities open to a college graduate with an agricultural background, Gardner said.

About 20 percent of the 2,865 replying are employed as educational workers--school and college teachers, university agricultural extension workers, etc.; almost 10 percent can be classed as professional workers--chemists, economists, engineers, inspectors, landscape architects, etc.; 23 percent are farmers and farm managers; about 33 percent are employed in business and industry--accountants, advertising work, bankers, grain and livestock buyers, sales managers, florists, research directors, etc.; and nearly 14 percent reported miscellaneous professions--physicians, clergymen, public officials, commercial airline pilots, lawyers, service men, etc.

Reported incomes ranged from \$4,000 a year to over \$75,000. The average salary was \$9,205.

Average salaries for educational workers reporting incomes was \$8,044; professional workers, \$8,741; farmers and farm managers, \$7,079; business and industry, \$11,488; and miscellaneous professions, \$9,230.

Farm incomes were reported for 1959, when farm incomes were low, Gardner said. If the survey had included 1960 farm returns, farmers' incomes would compare favorably with the general average.

R. C. Ross, U. of I. professor of agricultural economics emeritus, is analyzing the replies.

Department of Chemistry

1988-89 University of Chicago Department of Chemistry  
The following information is provided for your information.

Department of Chemistry

Results of a survey of the Department of Chemistry  
are provided for your information. The survey was  
conducted in the Department of Chemistry.

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Wide Interest Shown In Farm And  
Family Business Management Planning

URBANA--Five Illinois county farm advisers have been named as area advisers to meet requests of county farm advisers in carrying on a farm and family business management program, J. B. Claar, Associate Director of the University of Illinois Cooperative Extension Service announced this week. Forty-nine counties are planning programs in this area.

These positions are made possible by reassigning federal funds allotted to the state several years to strengthen programs on the business side of farming. Previously these funds had been used by assigning assistant farm advisers to work in specified counties. After careful study, it appears we can do this work more effectively and help more people by making specialized assistance available to all counties on an area basis, Claar pointed out.

The area advisers will work with county farm and home advisers in farm and family business management and Area Resource Development. Their principal assignment in the next few months will be helping farm and home advisers conduct farm and family business management workshops. These special study sessions are designed to assist farm families manage their incomes and improve their living standards.

Strengthening the family farm is the major goal of this work. The problem of making adjustments to keep pace with changes has resulted in a growing demand on the Cooperative Extension Service for training



and help in farm and home business planning and management, Claar stated. Extension workers will emphasize sound use of capital and credit, planning farm business enterprises and wise use of incomes for family needs.

The new advisers, former positions, areas they will serve, and their office headquarters are as follows: W. A. Bouslog, former Tazewell county farm adviser, to serve northern Illinois, expected location will be DeKalb, Dixon or Rochelle; A. H. Harris, former assistant farm adviser in Vermilion county, to serve western Illinois, Macomb; Frank P. Graham, former Randolph county farm adviser, to serve east-central Illinois, Clinton; E. C. Mosser, former White county farm adviser, to serve south-central Illinois, Effingham; Donald L. Doerr, former Edgar county farm adviser, to serve southern Illinois, Benton.





FOR IMMEDIATE RELEASE

## Illinois Farm Leases Generally Satisfactory, Study Shows

URBANA--Farmland owners and tenants expressed general satisfaction with their leasing arrangements, according to a University of Illinois study in 22 east-central Illinois counties.

Agricultural economist Franklin J. Reiss, who carried out the study, reported these findings in a new bulletin just published.

Crop-share and crop-share-cash leases were being used by 84 percent of those owners and operators who replied, while livestock-share leases were used by 13 percent. Labor-share and cash leases or special arrangements were used by 3 percent. In the east-central part of the state, the customary rent share is half of the crop. On a few farms with sandy or timber soils, the landlord received a two-fifths share.

Slightly less than half of the farm lease agreements were in writing. Yet the law requires that notice to terminate a lease, reimbursement guarantees, rights of entry and management prerogatives must be in writing to be enforceable if they deviate from specific legislation, common law or customary arrangements.

Costs for such items as seed, annual fertilizer, corn shelling and insect control were usually shared in the same way as the crop returns, that is, 50-50 in most cases.

The practices of sharing costs of limestone, rock phosphate and potash, plant foods with more than one year of usefulness, varied considerably. There seems to be a growing trend for the landlord to pay



for the initial application of these items and the landlord and tenant to share the costs of later maintenance applications.

Under a livestock-share lease, the landlord usually owned half of the livestock, received half of the returns and paid half the costs of legume and grass seeds, hay baling, silo filling, purchased feed, feed grinding and other livestock expenses. The landlord usually paid half or all the expense of such equipment as self-feeders, waterers and water heaters.

Many equipment, power and fuel costs under livestock-share leases were shared in a variety of ways. Since soils and building improvements differ from farm to farm, cost-sharing arrangements can be set up to balance the contributions made by landlord and tenant to the farm business.

On farms with crop-share-cash leases, the most common rental rates for tillable hay and pastureland was \$5 to \$10 an acre. Cash rents for nontillable land usually ranged from \$5 to \$8.

Cash rent for buildings was usually figured for the area in the farmstead at the per acre rate used for hay and pasture. Sometimes operators paid a lump sum of \$50 to \$250 for use of the buildings.

About three-fourths of the landlords in the study were farmers, retired farmers, widows of farmers or had had farm experience. Eighty-five percent of the landlords lived within 50 miles of their property, about an hour's drive or less. Only one in eight employed an agent or manager.

Modernizing the farm residence has complicated the farm rental arrangement. The farm owner is faced with investing in a modern home without getting a direct cash rent return. Several solutions have been suggested: The tenant may modernize the farm residence at his own expense, protected by a reimbursement guarantee if he leaves the farm before a certain time. Or the landlord may provide a modern residence and the tenant will pay for repairs and maintenance. Another proposed solution would be to develop two leases, one for the house and the other for the land.

Further details are presented in "Farm Lease Practices in East-Central Illinois," University of Illinois Agricultural Experiment Station Bulletin 677. Copies can be obtained from any county farm adviser or from the College of Agriculture at Urbana.

The first part of the report is devoted to a general description of the project and the objectives to be achieved. It also contains a brief history of the work done up to the present time.

The second part of the report is devoted to a detailed description of the experimental work carried out during the period covered by the report. It includes a description of the apparatus used, the methods employed, and the results obtained.

The third part of the report is devoted to a discussion of the results obtained and a comparison with the results of other workers in the field. It also contains a number of conclusions which have been drawn from the work.

The fourth part of the report is devoted to a summary of the work done during the period covered by the report. It also contains a number of recommendations which have been made for the future work.

The fifth part of the report is devoted to a list of references and a list of acknowledgments. It also contains a number of appendices which are of interest to the reader.

The sixth part of the report is devoted to a list of tables and a list of figures. It also contains a number of plates which are of interest to the reader.

The seventh part of the report is devoted to a list of errata and a list of corrections. It also contains a number of other items which are of interest to the reader.

The eighth part of the report is devoted to a list of names and a list of addresses. It also contains a number of other items which are of interest to the reader.

The ninth part of the report is devoted to a list of subjects and a list of keywords. It also contains a number of other items which are of interest to the reader.

The tenth part of the report is devoted to a list of subjects and a list of keywords. It also contains a number of other items which are of interest to the reader.

Lead Poisoning In Livestock  
Increasing, Veterinarian Reports

URBANA--A sudden increase in livestock fatalities due to poisoning by lead paint has been reported by Dr. R. D. Hatch, University of Illinois ambulatory veterinarian.

There seems to be no explanation for the increase, but the majority of victims are cattle and sheep. Explained Dr. Hatch, "Quantities of lead that would cause little or no reaction in other farm animals are often fatally toxic to calves and lambs."

Less than a teaspoon of lead would be fatal to a young calf or lamb, Dr. W. G. Huber, U. of I. pharmacologist, said. The amount of lead needed for a lethal dose increases with the animal's weight.

These small doses are quickly obtained once the animal discovers that lead paint has an irresistible salty flavor. This tasty "treat" is everywhere--the freshly painted surface or the old paint under it, the water bucket converted from a paint pail or the flakes of paint scattered in the grass.

Once inside the body, lead gets into the blood stream and attacks nerve centers. If livestock are discovered before signs occur, a dose of Epsom salts may be helpful, Dr. Hatch said.

Although these salts are not a treatment, they prevent further absorption of lead by turning it into a lead sulphate. Since the animal's system cannot absorb this material, the lead is eliminated in the feces.



"Once the signs appear, death rates approach 100 percent in cattle and sheep," Dr. Hatch said. Signs of lead poisoning are nervousness or excitement, blindness, incoordination, epileptic-like seizures and grinding of the teeth. These signs occur after the lead reaches the nerve centers.

Since treatment in extreme cases is almost impossible, prevention is the only practical solution. Dr. Hatch urges the following precautions:

1. Keep livestock away from paints having a lead base and also other sources of lead, such as insecticide sprays and old automobile batteries.
2. Do not use paint pails as water buckets. Even that old reliable paint bucket can suddenly become deadly.
3. Use paint that does not contain lead. Paint manufacturers who are aware of the hazard are replacing lead with nonpoisonous substances.

The first part of the book is devoted to a general history of the United States from its discovery to the present time. It is written in a simple and interesting style, and is well adapted for the use of schools and families.

The second part of the book is devoted to a detailed history of the United States from the discovery of the continent to the present time. It is written in a simple and interesting style, and is well adapted for the use of schools and families.

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THE HISTORY OF THE UNITED STATES



FOR IMMEDIATE RELEASE

## Fertilizer's Role Reaffirmed On Morrow Plots

URBANA--While the 1961 yields on the University of Illinois Morrow Plots were not record-breakers, they pinpointed fertilizer's role in modern agriculture, report agronomists A. L. Lang and L. B. Miller.

Under the present cropping system, agronomists plant all the plots to corn every six years. Since 1876, when the plots were established to answer questions on fertility, they have continued to do just that--and to raise some yet unanswered questions.

The untreated portion of a continuous corn plot yielded 46 bushels per acre, while the treated portion produced 104 bushels per acre. Treatment started in 1955 consisted of lime, nitrogen, phosphorus and potash. Before that time the plot received no treatment and had been in corn continuously. On a continuous corn plot receiving manure, limestone and phosphate since 1904 and additional nitrogen, superphosphate and potash for the past seven years, the yield was 117 bushels per acre.

This year's highest yield was 134 bushels per acre. The treatment on this plot has been manure, limestone and phosphate since 1904 in a rotation of corn, oats and legume hay.

Lang and Miller also compared plant populations of 12,000 and 16,000 on a medium-productive soil that had been planted to continuous corn with manure, limestone and phosphate treatment. They found no difference in yield. In contrast, on the most productive plots, corn yielded 118 bushels with the 12,000-plant population and 134 bushels with 16,000. This result again demonstrates the need for fitting planting rates to yield possibilities.



Illinois Sheep Day December 8 At Urbana

URBANA--The University of Illinois sheep division will hold open house for the state's sheep producers December 8 at Urbana. The annual Illinois Sheep Day program has been scheduled to enable sheepmen to finish picking corn and also take in the Illinois Purebred Sheep Breeders bred ewe sale the next day.

Activities begin with open house at the sheep farm beginning at 9 a.m. The formal program gets under way at 10 a.m. in the stock pavilion. U. S. Garrigus, U. of I. sheep division head, will moderate a panel on the future of the sheep business. Topics include production testing, fitting sheep into the farm plan, heat synchronization, artificial insemination, ewe management and feeding, early weaning, creep feeding, parasite control, lamb and wool marketing and consumer acceptance of lamb.

Dr. J. R. Pickard, U. of I. veterinarian, will discuss the scabies and scrapie control programs. R. L. Willerton, Danvers, will report on his program for fitting ewes into the farm operation. L. D. Carmichael, Rochelle, will discuss his lamb feeding program. E. A. Warner, Chicago, will demonstrate techniques for crotching, shearing rams and fitting with power shears.

Lunch will be served at noon by members of the student Hoof and Horn Club. Adjournment is scheduled for 3 p.m.



Illinois Purebred Sheep Sale  
December 9 At Urbana

URBANA--Forty-one purebred ewes are listed in the catalog of the Illinois Purebred Sheep Breeders winter bred ewe sale December 9 at Urbana.

This year's sale offering comes from 15 Illinois flocks, reports U. S. Garrigus, University of Illinois sheep division head and secretary of the breeders association. Breeds represented include Suffolk, Corriedale, Rambouillet, Hampshire, Oxford, Southdown and Shropshire.

A complete sale catalog may be obtained by writing to Illinois Purebred Sheep Breeders Association, 110 Stock Pavilion, Urbana.

Breeders from this area who will offer sheep for sale include:

(Editor: Note list of consigners below.)

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NO

Breeders who will sell ewes at the sale:

Belleville, Helms Brothers  
Bushnell, Bruce Sperry  
Carbondale, Southern Illinois University  
Elmwood, Jim Forney  
Findlay, W. R. Yantis  
Georgetown, John Trapp and Sons  
Lake Villa, William Duncan  
Newman, John Albin  
Prairie City, Keith McMillan and Sons  
Seneca, Robert Jackson  
Seymour, Green Top Farm  
Stewardson, Clarence Rincker  
Stonington, Harry Blome, Jr.  
Urbana, University of Illinois  
Windsor, Joe Hampton, Jr.

THE UNIVERSITY OF CHICAGO  
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SPF Producers Organize Illinois  
Swine Repopulation Association

URBANA--Representatives from Specific Pathogen Free (SPF) Swine Laboratories along with primary and secondary SPF producers have established the Illinois Swine Repopulation Association.

Purpose of the association, according to Dr. J. R. Pickard, is to develop and maintain SPF breeding herds through a system of health accreditation standards. Dr. Pickard is a University of Illinois extension veterinarian who attended the organization meeting.

The group has established guide rules for health and performance of SPF pigs and adopted by-laws outlining requirements for membership and duties of officers. In addition, the association elected officers and drew up articles of incorporation to submit to the state.

Officers of the Illinois Swine Repopulation Association are Eldon Johnson, Nokomis, president; Dr. Jason James, Sullivan, vice-president; and Dr. M. V. Slingerland, Altamont, secretary-treasurer. Additional board members are Eugene Feld, Alexis; Dr. Arthur Starkey, McLean; Paul W. Mangold, Mason City; and Dr. Marvin Clark, Monmouth.





FOR IMMEDIATE RELEASE

## UI Tests Slatted Floors For Swine

URBANA--Slatted flooring for livestock shelters--an idea that originated in Iceland some 200 years ago--is taking hold among modern-day farmers.

Poultrymen were the first to use slatted floors. But recently hog producers have been showing interest in the practice.

The logic behind slatted floors is the same for both types of livestock. Manure drops through slots in a raised floor and can be removed without interference from animals or equipment. The floors have the added advantage of keeping animals clean.

Recent University of Illinois agricultural engineering research indicates that concrete slats may be the farmer's best bet for raised slatted flooring for hogs. Early this year U. of I. researchers compared quarry screen flooring and concrete and wood slats.

In general, they found that quarry screen did the best job of keeping hogs clean. However, animals on the wire screen were reluctant to move around and showed some hoof wear.

Concrete and wood slats had no visible effects on the animals' hooves. And researchers noted little difference between wood and concrete so far as self-cleaning was concerned.

However, the scientists point out that in choosing slatted floor material the farmers should also consider such factors as durability, anchorage, dimensional stability and cost. When these factors are considered, concrete appears to have a slight advantage over wood for flooring.

U. of I. researchers point out, however, that work is under way with wood slats for flooring. Results of these tests could affect the present advantages noted for concrete.

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Southern Illinois Becoming Cattle Country

URBANA--Some southern Illinois farmers are finding it profitable to produce quality feeder calves and sell them to their corn belt farmer neighbors to the north.

Developments to date prove that southern Illinois farmers can produce good to choice feeder calves. And, when they do, central and northern Illinois farmers will come south to buy them. But the number available for sale still falls far short of meeting the needs of all the state's cattle feeders.

Probably the best example of quality southern Illinois feeder calves were the 2,000 head that moved through the auction ring at the University of Illinois Dixon Springs Experiment Station this fall. More than 100 producers, members of the Egyptian Livestock Association, sold 2,026 head for about a quarter of a million dollars.

This sale didn't become successful overnight. The association has been holding similar sales for 12 years. University of Illinois livestock extension specialist Harry Russell observes that the quality offered this year was the best he has seen. Bob Cate of the Dixon Springs staff says that sellers were pleased with the strong prices and buyers were able to get fresh, clean, well-sorted and evenly matched groups of cattle.

The top pen of six steers averaged 294 pounds and brought \$29.50. A second pen of nine 359-pound steers brought \$29.25.

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THE UNIVERSITY OF CHICAGO

1938-39 School Year. The University of Chicago has a long history of providing a liberal education for its students. The curriculum is designed to be broad and to include the study of the arts, sciences, and humanities. The University is committed to the highest standards of academic excellence and to the development of its students as individuals.

The University of Chicago is a leading center of research and scholarship. It is home to many of the world's most distinguished scholars and scientists. The University's research programs are supported by a generous endowment and by the contributions of its faculty and students. The University is committed to the advancement of knowledge and to the service of society.

The University of Chicago is a member of the Association of American Universities. It is also a member of the League of Nations and the United Nations. The University is committed to international cooperation and to the promotion of peace and understanding between nations. The University is a leader in the development of new technologies and in the application of science to the benefit of humanity.

The University of Chicago is a place where the best minds come to learn and to teach. It is a place where the pursuit of knowledge is a way of life. The University is committed to the highest standards of academic excellence and to the development of its students as individuals. The University is a place where the future is being shaped.

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Cattle buyers are naturally interested in knowing what kind of finished cattle these feeders will make? Harry Russell believes that cattle like those moving through the Dixon Springs sale will fill feed-lot requirements for buyers who finish their cattle to low to average choice grade. These animals are the type in demand by the chain stores.

Producers in other areas of southern Illinois have watched the progress of the Egyptian Livestock Association and have also organized feeder cattle sales.

The Benton Feeder Sale was held for the second time this year. About 180 head, mostly yearlings, sold for \$22,000. The average price per pound was \$21.72.

In the Murphysboro area, a group of cattle producers consigned 337 head to an auction sale, with prices ranging from \$17.25 to \$27.75.

The associations sponsoring these sales hope for larger numbers and higher quality consignments next year.

Farmers thinking about starting beef herds to raise feeder calves should start with good-quality cows and a top bull, Russell emphasizes. Many present herd owners would do well to upgrade the quality of their cows and bulls. Neither seller or buyer should expect much success with low-quality animals, he concludes.



Area Youth Will Attend National  
4-H Dairy Conference

URBANA--The top 14 Illinois 4-H'ers in dairying will attend the seventh National 4-H Dairy Conference in Chicago November 30 to December 2.

According to Frank Mynard, University of Illinois 4-H specialist, club members earned this trip because of their outstanding dairy projects and their leadership and achievement records.

On Thursday, November 30, the winners will attend the International Horse Show and Rodeo. The Don McNeill Breakfast Club, the Prudential Building and the International Dairy Show are highlights of Friday's program. Saturday morning the group will attend a dairy marketing clinic. During their stay in Chicago, they will also attend several dinners in their honor.

Club members from this area selected for the tour are:

(Editor: Please see attached list.)

Illinois delegates are sponsored by the Pure Milk Association, Illinois Holstein-Friesian Association, Southern Illinois Breeding Association and Northern Illinois Breeding Cooperative.



ILLINOIS DELEGATES  
SEVENTH ANNUAL 4-H DAIRY CONFERENCE  
CHICAGO - NOVEMBER 30 TO DECEMBER 2, 1961

<u>County</u>	<u>Name</u>	<u>Address</u>
Carroll	Arnold Getz	R. 2, Savanna
Cook	Leslie Allen Yunker	R. 1, Box 60 151st St. & Wolf Road Orland Park
DeWitt	Reggie Merrill	523 N. Elm, Clinton
DuPage	Erwin L. Dieckhoff	R. 1, Bartlett
Greene	Bob Goeddey	R. 2, Carrollton
Henry	Robert Godke	R. 1, Kewanee
Kane	Richard Schingoethe	R. 1, Box 153, Sugar Grove
Kendall	Cheryl B. Smith	R. 1, Box 80, Oswego
Montgomery	David O. Ruppert	R. 2, Nokomis
Mercer	James Bogart	R. 3, Aledo
Moultrie	Myrna Darlene Christy	R. 1, Sullivan
Schuyler	Larry Keith Dodds	Star Route, Rushville
Stark	Richard Jaye Colver	R. 1, Neponset
Vermilion	Gary Ludwig	R. 1, Danville



FOR IMMEDIATE RELEASE

COLLEGE OF AGRICULTURE and the  
DIVISION OF UNIVERSITY EXTENSION

Soil Fumigants May Control  
Soil Problems In Lawns

URBANA--Nothing beats good management, but soil fumigant research at the University of Illinois horticulture department shows promise of licking the weed problem prior to establishment of turf-grasses.

University of Illinois turf specialist H. R. Kemmerer will report on research progress at the Second Illinois Turfgrass Conference here December 4 and 5.

With present materials, fumigation isn't practical for the average home owner, says Kemmerer. Under research conditions, fumigation--for best results--involves tilling the soil six to eight inches deep and controlling temperatures between a 60- and 85-degree Fahrenheit range. And researchers have found that clay and organic soils require more fumigant than sandy soils.

In addition, studies have shown that fumigation sometimes slows nitrogen release. The operation therefore also involves using the nitrate form of nitrogen so that the element will be readily available.

Kemmerer will give details on soil fumigation research in his presentation, "Controlling Soil Pest Problems Before They Develop" at the Turfgrass Conference. Those interested should write the Conference Supervisor, 116E Illini Hall, Champaign, Illinois.

1954

THE UNIVERSITY OF MICHIGAN

THE UNIVERSITY OF MICHIGAN LIBRARY

Arsenic Accumulation  
Poses Growth Problem

URBANA--Compounds containing arsenic, long used for insect control and more recently for weed control, now pose problems, according to University of Illinois soil scientist S. W. Melsted.

Many orchards with a history of arsenic spray use are now too toxic for crop production. Soil toxicity is only part of the problem, says Melsted. Since arsenic reacts much like phosphate, it remains in the surface crust when sprayed on the soil. Arsenic also reacts like phosphate in soil tests. University of Illinois agronomists presently are working on practical methods for showing the presence of arsenic.

Reclaiming arsenic-toxic soils is such a difficult and time-consuming job that it is seldom completely successful, says Melsted. One method involves mixing and diluting the surface-crust accumulation with the rest of the soil. The other involves applying large amounts of phosphorus fertilizer to reduce the amount of arsenic taken into the plant. The amount of phosphate that is needed will depend on how much arsenic is in the soil and how well it has been distributed through the surface soil. The required amount of phosphate may vary from 200 to 600 pounds per acre, depending on the severity of arsenic toxicity in the soil. So far results of reclaiming arsenic-toxic soils have been variable and never completely successful, reports Melsted.

The University of Illinois agronomist will report on "Arsenic in Plants and Soils" at the Illinois Turfgrass Conference at Urbana December 4 and 5.





FOR RELEASE FRIDAY, DECEMBER 8, 1961

## Future Trends In Sheep Production Reported

URBANA--Traditional sheep production methods may be due for some revolutionary changes as scientific research results are applied by modern sheep producers. At the University of Illinois Sheep Day here today, a panel of scientists and sheep authorities previewed some of the developments to come.

U. S. Garrigus, head of the sheep division, called upon sheep producers to use the latest scientific findings to improve their labor and income returns from sheep. Although lamb and mutton output per breeding animal has doubled in the past 50 years, he said there was still need for improvement.

F. C. Hinds, research worker at the Dixon Springs Experiment Station, reported successful efforts to control breeding and lambing times. Through use of a female hormone called Provera, scientists have been able to concentrate lambing time for most ewes into a nine-day period. In tests the ewes that did not receive the hormone in their feed lambed over a much longer period. The hormone treatment did not affect the birth weight of the lambs or the number of ewes having twins.

B. B. Doane, U. of I. sheep farm manager, reported that high labor requirements have been the major obstacle to use of artificial insemination in sheep. But recent advancements in synchronized breeding may greatly stimulate its development. Artificial insemination would enable producers to make greater use of superior sires, keep fewer rams and control diseases.

-more-



J. M. Lewis, assistant director at the Dixon Springs Experiment Station, reported that weaning lambs early or using some system that does not allow lambs to graze with adult sheep will greatly reduce parasites and produce a higher quality product for an earlier market. Lambs weaned early continued to gain well when fed in drylot. Lewis believes that early weaning along with new methods of synchronized breeding and artificial insemination may make it possible to produce three lamb crops in two years.

T. R. Cline encouraged sheep producers to creep-feed lambs. This practice makes it possible to get lambs to market earlier and usually to obtain a higher price as well as to save labor by shortening time the lambs are on the farm.

R. J. Vatthauer, U. of I. animal science department, reported that feeding trials over a three-year period had shown that ram lambs gained faster than wether and ewe lambs. The ram lamb carcasses had more lean meat than wether or ewe lamb carcasses. Taste panel tests showed that cooked sirloin roasts from ram and wether carcasses could not be identified in young lambs. These results suggest that castrating ram lambs is not necessary for producing a high-quality lamb carcass if lambs are marketed by five months of age.

Implanting lambs with stilbestrol did not improve carcass quality or performance of suckling lambs in Illinois tests. Ram lambs that were not implanted gained faster than implanted rams. The implanting had no effect on wether or ewe lambs. No differences were found in carcass grade, loin eye area or fat content of the carcass.

M. R. Karr, U. of I. assistant in animal science, reported that a mixture of copper sulphate and nicotine sulphate was more effective

CHAPTER I. THE DISCOVERY OF AMERICA

In the year 1492, Christopher Columbus, an Italian navigator, sailed across the Atlantic Ocean in search of a western route to the Indies. He discovered the Americas on October 12, 1492, and his voyage opened the way for European exploration and settlement in North America.

Columbus's discovery of America led to the establishment of colonies by European powers. The Spanish, French, and English all sought to claim territory in the New World, leading to a period of intense competition and conflict.

The early years of the colonies were marked by hardship and struggle. Settlers faced a lack of resources, disease, and conflict with Native Americans. Despite these challenges, the colonies grew and developed, laying the foundation for the future of the United States.

The American Revolution, which began in 1775, was a war for independence from British rule. The colonists fought for the right to self-governance and eventually won their independence in 1783. This led to the formation of the United States of America.

than phenothiazine in controlling certain stomach worms in lambs. Although phenothiazine has been used so widely and effectively for many years, it appears that at least one species of worm has become resistant to it. Where resistant strains of stomach worms are not involved, phenothiazine still appears to be the most effective drug against stomach worms.

William Gaither, Jr., assistant principal of schools at Williamsville, reported on use of lamb in their school lunch program. He believes that including lamb in the lunch program can increase interest and demand for the product. When lamb was first served at Williamsville, about 77 percent of the students had lamb and enjoyed it. They were not aware of the kind of meat they had eaten, nor were they particularly interested, however. Their main comment was that "it tasted good."



Turkey Marketing Order Hearings  
In Chicago. December 8

URBANA--Illinois turkey industry members will have the opportunity to express their views on proposed marketing orders that would regulate handling of turkey hatching eggs and market turkeys this Friday, December 8, in Chicago.

Marketing orders are compulsory programs designed to maintain orderly marketing, provide fair prices for consumers and give reasonable returns to producers.

J. R. Roush, University of Illinois poultry marketing economist, explains that the proposed marketing orders provide for supply management; market research and development; regulation of grade, size and quality by handlers; and prohibitions on unfair trade practices.

During the Chicago hearings, a U. S. Department of Agriculture official will preside and receive testimony for or against the proposed orders. Anyone who will be affected by the order can testify. Hearings will be conducted at the LaSalle Hotel beginning at 9 a.m.

If industry members indicate enough interest at the hearings held in Chicago and in other parts of the country, the Secretary of Agriculture can call for a referendum. If two-thirds of all producers or those growing two-thirds of the total production approve the order, the Secretary can declare the order in effect.

The proposed orders for turkeys and turkey hatching eggs would be the first ever applied to a single commodity on a nation-wide basis. They would also be the first ever applied to livestock or poultry. Many farmers are watching the proposed turkey program with interest, since the outcome might lead to proposed order for other livestock and poultry products.



(Note to Editor: This story is a round-up of results of judging contests in which University of Illinois and Illinois 4-H judging teams participated. You have probably already received individual team results through the wire services.)

Illinois Judging Teams Complete Successful Year

URBANA--Eighteen University of Illinois College of Agriculture students won top honors in national judging contests this fall.

This year's judging teams compiled one of the best all-around records in recent years.

The University of Illinois dairy products judging team placed first in the all-around class at the 1961 Collegiate Students' International Contest in Washington, D. C. This team, which is coached by Joseph Tobias, associate professor of dairy technology, won a \$2,300 scholarship for the University's graduate program.

The dairy team, coached by Jack Albright, assistant professor of dairy husbandry, placed fourth at the National Collegiate Dairy Judging Contest in Waterloo, Iowa, and seventh at the intercollegiate contest held in conjunction with the International Livestock Exposition in Chicago.

At the American Royal Intercollegiate Judging Contest, the University's livestock team placed third. The livestock team also placed third at the Chicago Judging Contest. This team is coached by W. W. Albert, assistant professor of animal science.

The U. of I. meats judging team placed ninth at the American Royal. They bettered their record in Chicago, where they placed third. Robert Kauffman, assistant professor of animal science, served as coach.

Members of the University of Illinois College of Agriculture staff also coached the state 4-H judging teams. The 4-H poultry team,



## Add Judging Teams Complete Successful Year - 2

coached by extension poultry specialist Sam F. Ridlen, placed first in the Interstate Invitational 4-H Judging Contest held in Chicago.

At the National 4-H Dairy Judging Contest held at Waterloo, Iowa, Illinois' team placed seventh. Coach J. G. Cash, extension dairy specialist, pushed his team to victory at the International Livestock Exposition.

The state 4-H livestock team placed second at the American Royal. The team finished fourth at the International Livestock Exposition. The livestock team is coached by Don Walker, extension livestock specialist.

(Note to Editor: Names of team members are given below.)

-30-

### 1961 University of Illinois Judging Teams

#### Dairy Products

Dennis Gordon, DesPlaines  
Patricia Crater, Havana  
JoMar Alwes, Bloomington  
Thomas Cain, Chicago, alt.

#### Livestock

Charles Bickelhaupt, Mt. Carroll  
Phillip L. Dollahon, Seymour  
Duane E. Haning, Minier  
Donald E. McAtee, Greenvew  
Gene L. Weber, Thawville  
Jack Clark, Lewistown, alt.  
Robert Humphreys, Gilson, alt.  
James Schoonaert, Washington, alt.

#### Meats

Gordon Gullakson, Serena  
Larry Howard, White Hall  
Gordon Reynolds, Lostant  
Edward Stokes, El Paso  
Glen Truckenbrod, Mendota

#### Dairy

Jerry Miller, Centralia  
Dave Gusse, Dixon  
Jim Dunphy Sullivan  
Marvin Schlomer, Benson

### Illinois 4-H Judging Teams

#### Dairy

Ronald Boldt, Seneca  
Larry Mohr, Normal  
Dale Schultz, Peoria  
Don Freese, Sullivan

#### Livestock

Gerald Anderson, Leland  
Gerald Carroll, Brimfield  
Harold Heck, Aledo  
Ronnie McCaskill, Timewell  
Charles Rayburn, Bondville

#### Poultry

Jim Fulkerson, Manville  
Don Collom, Ridgefarm  
Glen Osborn, Hartsburg  
Arlyn McCormick, Shelbyville  
Leslie Beall, Streator, alt.  
Virginia Bohlen, Moweaqua, alt.





FOR IMMEDIATE RELEASE

## Sheepmen Urged to Build Consumer Acceptance

URBANA--Sheep producers must do three things if they are to have an economically successful business in the future, a University of Illinois livestock marketing economist stated this week.

E. E. Broadbent urged sheepmen to build volume, develop outlets that will pay for a quality product and market a product that will attract customers and bring them back for more.

Broadbent recognized that volume was a major problem in Illinois. High-paying lamb buyers must operate where there is a volume of high-quality lambs. Illinois lamb production is so sparse and unevenly distributed that producers have not been able to attract and hold the markets they would like.

Whether present marketing agencies handle the lambs or new agencies are set up, both face the problem of securing a volume of high-quality lambs to obtain the favorable prices producers want, Broadbent pointed out.

To get consumer acceptance, Broadbent urged sheepmen to demonstrate their product to the consuming public. He cited the successful chicken and pork barbecues staged by producers in Illinois and elsewhere.

He cited the records showing that costs of labor and feed to produce a pound of meat favor pork, poultry and beef producers. Yet prices paid for lamb have not been favorable for lamb producers.

Sheep and lamb producers face serious competition. Every producer has a responsibility to use and be a salesman for his product, Broadbent concluded.

Broadbent spoke at the Illinois Sheep Day program Friday on the U. of I. campus.

THE UNIVERSITY OF CHICAGO

Section 101 of the Illinois Constitution

Section 101 of the Illinois Constitution provides that the General Assembly shall have the power to pass laws.

It is the policy of the State to encourage the development of the State's resources.

The General Assembly shall have the power to pass laws to carry out this policy.

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Scholarships Offered in Food Science

URBANA--High school seniors interested in pursuing college study in food science and technology are eligible for consideration for ten \$300 scholarships offered by the Institute of Food Technologists, according to R. T. Milner, head of the University of Illinois food technology department.

Milner points out that this is the second year the professional society of food technologists has sponsored IFT undergraduate scholarship awards. Ten recipients of the 1961 scholarships are now attending five schools in various sections of the country.

In addition to the ten \$300 scholarships offered to students entering college for the first time in the fall of 1962, Milner says that the Institute of Food Technologists also provides or administers scholarships or fellowships currently totaling \$22,000.

The University of Illinois is the only institution in Illinois now offering a curriculum in food technology.

Candidates interested in the scholarships should request application forms from the food technology department office, 213 Mumford Hall, University of Illinois, Urbana. Deadline for applications is March 1, 1962.

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1945

Local U. of I. Students Receive Scholarships

URBANA--Seventeen University of Illinois students will receive \$300 Sears-Roebuck Foundation scholarships, according to Cecil D. Smith, College of Agriculture assistant dean.

The awards are granted on the basis of high school record, leadership activities and financial need.

David John Schingoethe, 19, R. 1, Sugar Grove, won the special sophomore award given to the student with the highest record among last year's freshman winners. All the other winners are freshmen studying agriculture or home economics.

Local scholarship winners are:

(Editor--See attached sheet of winners listed by winners' home towns.)

-30-

EEW:cm  
12/6/61  
NO

THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO  
OFFICE OF THE DEAN  
540 EAST SOUTH EASTERN AVENUE  
CHICAGO, ILLINOIS

TO THE PRESIDENT OF THE UNIVERSITY OF CHICAGO

FROM THE DEAN OF THE UNIVERSITY OF CHICAGO

RE: [Illegible]

YOUR LETTER OF [Illegible] IS RECEIVED

AND THE MATTER IS BEING CONSIDERED

BY THE BOARD OF TRUSTEES

YOUR COOPERATION IS APPRECIATED

VERY TRULY YOURS

[Illegible Signature]

1921

Local U. of I. Students Receive Scholarships

Burnt Prairie, R. 1	Richard Duaine Winter
Carmi, 207 South Fifth Street	Larry Franklin Barbre
Caseyville, Box 48, R. 1	Larry Leland Erlinger
Carthage, 612 South Scofield	Esta Jane Sheets
Edwards	Darrell Edward Munton
Ellery	Earnest Anniss
Marengo, R. 1	Ronald Lee Gieseke
Monica	Emma Sue Gilkeson
Oregon, R. 2	Denis David Anderson
Pawnee	William Donald Boston
Prophetstown, Box 93, R. 3	Robert Carl Anderson
Rock Falls, R. 2	Harlan Neil Henson
South Beloit, R. 1	Robert Dean Clothier
Sugar Grove, R. 1	David John Schingoethe
Toluca	Vyrl Lynn Laible
Trenton, R. 2	Marjorie Elaine Vaninger
Waterman, R. 1	David W. Birch





FOR IMMEDIATE RELEASE

1962 Farm Outlook Packet

Price And Production Policies:  
Key To Long-Run Farm Outlook

URBANA--Price and production policy, price support levels, and storage programs are crucial factors in the long-term agricultural outlook according to Harold G. Halcrow, head of the University of Illinois agricultural economics department.

He expects that farm costs and prices will continue about the same as in recent years and that the terms of trade for farm products will be similar to those of 1958 to 1960. He sees little evidence that farm prices will return to the high levels of the early 1950's. On the other hand, they do not seem likely to fall below 1958-60 levels.

Halcrow makes these observations on the farm situation:

Adjustments must take place if agriculture is to be free and prosperous on a family farm basis. Young people in rural areas need a broader education so that they will not be solely dependent on farming as a future occupation. Only about one-fourth of those who grow up on farms will be able to find room in farming.

Off-farm employment opportunities must be developed for farmers who find themselves in low-income situations and who have an interest in other employment. Ways should be found to provide job training so that those who take nonfarm jobs won't have to start so far down the income ladder.

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A significant shift in national farm policy has occurred. An administrative policy of getting government out of agriculture has been replaced by a philosophy of government regulation of both production and marketing.

There is a need to develop a long-run national defense food policy. Policies that may be appropriate for peacetime are not sufficient to provide adequate food reserves for war and to serve as a maximum deterrent against attack. Such policy should consider size, location and form of storage stocks. The temptation to view food reserves as a surplus disposal program should be avoided.

More emphasis should be placed on long-range policies aimed at fundamental adjustments rather than year-to-year emergency programs.



1962 Farm Outlook Packet

Higher Hog Production In 1962  
Likely; Lower Prices Expected

URBANA--Illinois swine producers can expect a generally favorable corn-hog ratio for most of 1962, a University of Illinois livestock marketing economist stated this week.

As a result, E. E. Broadbent believes hog producers will increase their farrowings and market more hogs during the new year.

Here is how Broadbent appraises the 1962 hog situation:

Although government price supports under feed grains are higher, there is no reason to believe that the corn-hog ratio will be unfavorable next year.

The fall pig crop is about 3 percent higher than it was last year, and early estimates place 1962 spring farrowings about 5 percent higher. So hog marketings will be higher all through the new year.

A sustained high corn-hog ratio leads to relatively heavy farrowing. The lighter marketings of sows this fall indicate that farmers intend to push up spring farrowings. Optimism from present favorable cost-price relationships may cause farmers to boost spring farrowing more than the estimated 5 percent. Such a development could mean a sharp price decline in late fall and early winter--as much as \$3 below 1961. Such a depressed price situation could cause some groups to advocate more government help to prevent financial distress for hog producers.

While the 1961 fall price decline is past, prices may hover between \$15 and \$16 a hundred at country points during late December and early January. Since packers are not storing so much pork as usual, prices may move up and down quickly at times during the months ahead.

Record supplies of beef, broilers and turkeys are going to furnish consumers with considerable choice of meats along with additional supplies of pork.



1962 Farm Outlook Packet

Government Dairy Purchases Up Following  
Price Support Boost

URBANA--Government dairy product purchases to support prices in 1961 will probably be more than double those of 1960, a University of Illinois dairy marketing economist pointed out this week.

R. W. Bartlett reports that butter and cheese purchases will be equivalent to about 7.5 billion pounds of milk, or about 6 percent of total production. The 1960 government dairy support operations amounted to about 3.1 billion pounds of milk, or 2.7 percent of total production.

Bartlett believes the major part of the increased government buying resulted from higher price supports announced in September 1960 and March 1961. From September to March, support prices were increased from 77 to 85 percent of parity.

From 1953 to 1960, dairy support prices were reduced from 90 to 77 percent of parity. During this period, government purchases for price support declined from 8.4 to 2.7 percent of total milk production.

From an economic viewpoint, there was no justification for raising price supports in September 1960 and March this year. The basic problem is reconciling economic and political reasoning in determining a price support policy, Bartlett points out.

Some have proposed setting a market quota for each dairy producer, with a penalty for those who produce more than their quota. Bartlett questions whether this plan is in the best public interest or the best long-run interest of dairy farmers. During recent years, considerable substitution of other foods has encroached upon the dairy farmer's traditional market. Such examples include margarine in place of butter, mellorine in place of ice cream, filled milk in place of evaporated milk, low-priced meat in place of cheese and sterile concentrated milk in place of fresh whole milk.



1962 Outlook Packet

Soybean Prices To Stay Near  
Loan; Surplus Expected

URBANA--Soybean prices will remain close to the loan rate for the first nine months of 1962, a University of Illinois agricultural marketing economist believes.

T. A. Hieronymus says that farmers are holding their 1961 soybeans tightly and will put enough into the loan program to make the support price effective.

Buyers may bid up prices a little above the loan in the spring to persuade farmers to sell. But prices will not move up very far because of the substantial carryover expected next October 1 and the USDA decision to sell at about six cents above the loan price.

Here is how Hieronymus sizes up the soybean situation for the months ahead:

Soybeans will be in surplus in 1962; a carryover of about 90 million bushels next October 1 seems likely.

The total supply on October 1, 1961, was 701 million bushels. During the year, about 36 million will be used for seed and feed. Exports will probably total about 150 million bushels compared with 130 million this past year. About 425 million bushels will be crushed for oil and meal compared with 402 million last season. Total use will therefore run about 611 million bushels.

Soybean oil exports for the year ahead will run about 1.5 billion pounds. But about 1.3 billion will be exported under donation and subsidized export programs. To obtain 1.3 billion pounds of oil requires 118 million bushels of soybeans. This is a further measure of the soybean surplus.

The average loan rate for the 1961 crop is \$2.30 a bushel. It will probably remain the same for the 1962 crop.



## 1962 Farm Outlook Packet

Beef Supplies Plentiful; Little  
Price Change Likely In 1962

URBANA--American consumers can look forward to plentiful beef supplies in 1962. And cattle feeders and producers can expect prices to average about the same as in 1961.

Cattlemen sent record supplies of beef to market in 1961, enough for nearly 87 pounds for every man, woman and child in the country. For 1962, rising supplies of beef for slaughter will keep pace with our growing population even though beef imports may be slightly lower.

Here is how M. B. Kirtley, University of Illinois livestock marketing economist, views the beef cattle outlook:

The number of cattle on U.S. farms and ranches will total 98.5 to 99 million head on January 1 compared with 97.1 million on January 1, 1961, and 96.2 million in 1960. The expansion rate is only slightly greater than the increased market provided by our growing population.

As a result of the larger inventory, cattle slaughter will be slightly higher in 1962. But the total amount of beef will not rise as much, since animals are expected to be slaughtered at lighter weights.

In 1961, steer and heifer slaughter rose 5 percent while cow slaughter dropped about 9 percent. Next year cow slaughter will probably rise. More young stock will probably be held back as replacements. As a result, cow prices may decline somewhat, but decreased imports of boneless beef may mean that price will decline less than normally when slaughter goes up.

PHYSICS 551  
PROBLEM SET 1

1. A particle of mass  $m$  moves in a circular path of radius  $r$  with constant angular velocity  $\omega$ . Find the magnitude of the centripetal force acting on the particle.

2. A particle of mass  $m$  moves in a circular path of radius  $r$  with constant angular velocity  $\omega$ . Find the magnitude of the centripetal force acting on the particle.

3. A particle of mass  $m$  moves in a circular path of radius  $r$  with constant angular velocity  $\omega$ . Find the magnitude of the centripetal force acting on the particle.

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6. A particle of mass  $m$  moves in a circular path of radius  $r$  with constant angular velocity  $\omega$ . Find the magnitude of the centripetal force acting on the particle.

7. A particle of mass  $m$  moves in a circular path of radius  $r$  with constant angular velocity  $\omega$ . Find the magnitude of the centripetal force acting on the particle.

Fed cattle prices will probably hold about steady through the winter. In the spring, some decline will occur, but it will not be so sudden or severe as last year.

Demand for beef should be favorable. Consumer incomes will be higher than in 1961. Unemployment will be less probable. Although meat supplies will be large, they may be more evenly distributed in 1962.

Low cattle-feeding profits seem likely for many operators in 1962. Fall prices of stocker and feeder cattle were higher and will remain strong. Feed costs will also be slightly higher. Expansion in the cattle-feeding industry has resulted in continued sharp competition for replacement cattle.

The market demand for beef is becoming more standardized. Most buyers want lighter weight cattle with moderate finish. Price spreads will be wider between grades in 1962 than this past year, but generally cattle with moderate finish and those with high finish will sell closer to the same price than in the past.

The strong consumer demand for beef, even with record supplies, shows the favorable position of the beef industry. If cattlemen continue to expand gradually in line with the growing market, the cattle industry will remain in sound condition.



1962 Farm Outlook Packet

Little Change In Net Income Expected; Demand  
For Farm Products Steady To Higher

URBANA--Net farm income, which rose about 8 percent in 1961, won't change much in 1962, a University of Illinois agricultural economist believes.

L. H. Simerl points out that the increase in 1961 came largely through bigger government payments to farmers, especially under the feed grain program. Officials in Washington do not seem to be planning higher payments in 1962. Neither is there any prospect for much increase in income from farm marketings, he reports.

Here is how Simerl sees the general demand and cost situation for farmers in 1962:

Consumer demand for farm products is expected to increase normally. Population as usual will increase about 1.6 percent. Wage rates will rise by at least 3 or maybe 4 percent. The number of employed persons may increase by 2 percent even though the number of unemployed shows no change.

Probably only a small part of the increase consumer spending for food will get through to become net farm income. About 90 percent of the money consumers now spend for food is absorbed in processing and distribution and in farm operating expenses.

Farmers usually benefit from general business improvement. And they are never prosperous when nonfarm industries are depressed. So a favorable business outlook is favorable to farm income.

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Foreign demand for U. S. farm products is increasing and should be as good in 1962 as in this past year. Unfortunately some of our products, notably wheat, are overpriced in comparison with prices in other exporting countries. So we are forced to subsidize exports of wheat heavily--or give it away. Other products--soybeans, for example--are priced competitively and are sold without subsidy to foreign buyers.

The wage-cost spiral continues to pinch farmers. The rising costs are largely "made in U.S.A.," while prices of many farm products are strongly influenced by international conditions. Wage-cost pressure will persist in 1962, but it is encouraging that economists and public officials are beginning to recognize the injurious effects of excessive cost increases on farm income.

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12/11/61



1962 Farm Outlook Packet

Larger Laying Flocks In 1962;  
Lower Egg Prices Likely

URBANA--The coming year does not appear so favorable as 1961 for egg producers, a University of Illinois poultry marketing economist believes.

J. R. Roush points out that the size of the nation's laying flock will be about the same at the beginning of 1962 as it was a year ago. But new pullets will be added as the year progresses, and by mid-year the total number of birds in laying flocks will exceed that of a year earlier.

Higher laying rates will mean larger egg supplies during the first six months of 1962. So prices will probably drop below those of a year ago at least during the first four months, Roush explains.

Prices for the last half of the year will depend on the number of baby chicks hatched this winter and next spring. It now looks as if hatchings will exceed those of a year ago. Present hatching activity indicates continued interest in increasing the size of the nation's laying flock, Roush observes. Continued low broiler prices may induce some producers to switch from broiler to egg production. If this occurs, egg prices will be lower in the last half of 1962 than they were in 1961.

Even though broiler producers received the lowest prices since 1934 this past year, there doesn't seem to be any large-scale reduction in production. Placements have been about the same in recent weeks as last year. Breeder flocks are also expected to be larger earlier in the year. Such developments cannot create any substantial price improvements during 1962, Roush points out.

-more-



Despite record supplies and the lowest prices since 1940, producers show little evidence of making any drastic cut in turkey production in 1962. The number of breeder hens on hand could result in a 1962 turkey crop of more than 100 million birds compared with 107 million in 1961. To achieve prices equal to 1960 would require production of about 85 million.

No matter what production changes are made, record supplies carried over from the 1961 crop will mean little price change through the first eight months of the year. If proposed turkey marketing orders are put into effect and bring reduction in marketings, turkey prices might be increased, but not before the last quarter of 1962, Roush concludes.

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HDG:dl  
12/12/61



## 1962 Farm Outlook Packet

Government Activity Key  
Factor In Corn Outlook

URBANA--Rate of corn sales by farmers, marketings by government and the amount of 1961 corn farmers place under price supports this winter and spring are the three main factors that will determine future corn prices, according to L. F. Stice, University of Illinois grain marketing economist.

In 1961, farmers produced 3,527 million bushels of corn. Use during the current feeding season is expected to be 3,676 million. The 150-million-bushel difference between production and needs will be supplied from the 2,000 million bushels of carryover stocks on hand October 1. This will come about when the amount of corn sold by the government exceeds the amount of 1961 corn delivered under the price support program by 150 million bushels or more.

If corn production and use estimates are accurate, the major uncertainty is what market prices will prevail. Stice believes three possible situations could develop:

1. The government may sell enough corn to offset any quantity farmers seal in addition to the 150-million-bushel difference between 1961 production and use. Under this circumstance, market prices could be held at present levels or lower through government sales. But there are some unknowns here: How much corn can Commodity Credit Corporation sell? How much corn is potential loan corn? The question here is not how much eligible corn was produced on the acreages in compliance with the Feed Grain Program, but how much will be sealed or sold, depending upon market price.

1944

Department of Chemistry  
The University of Chicago

Dear Sirs: I have the honor to acknowledge the receipt of your letter of the 10th inst. regarding the matter mentioned therein. The same has been referred to the appropriate authorities for their consideration. I am sorry to hear that you are unable to visit Chicago at the present time. I am sure that you will find the work at the University of Chicago very interesting and profitable.

In the event you are unable to visit Chicago, I would be glad to have you send me a copy of your report on the work you have done. I am sure that it will be of great interest to me. I am sure that you will find the work at the University of Chicago very interesting and profitable. I am sure that you will find the work at the University of Chicago very interesting and profitable.

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USDA economists estimate that farmers participating in the Feed Grain Program produced about 1,645 million bushels of corn and that 1,465 million bushels are legally eligible for price support. CCC can legally sell corn and other feed grains at market prices, against the \$768 million of Feed Grain Program payment certificates, for export and relief, and also non-storable corn.

It is unlikely that total CCC sales of corn this season will exceed the 1,465 million bushels eligible for loan, but they could exceed the quantity that would move into loan or market, depending on price. In late November and early December CCC corn sales averaged over 25 million bushels a week.

2. The quantity of potential loan corn may exceed the quantity CCC can sell at market prices. More of this corn may be placed under loan than CCC sales plus 150 million bushels. If this happens, market prices would rise enough before next August 1 to cause redemption of 1961 sealed corn. This would mean market prices of \$1.25 a bushel or higher next summer.

3. Market prices may rise enough to divert potential loan corn to market before it gets under loan. If past experiences are a guide, market prices of \$1.10 to \$1.15 a bushel would do this. Futures market corn prices suggest that the grain trade believes this situation is more likely to prevail.

Whether or not it does depends on how well USDA officials can anticipate farmer selling of corn and adjust their inventory management program to it. At the same time farmers with corn to sell, especially high-moisture corn, must anticipate government sales.

Stice reports that in November farmers' sales of corn were light. Receipts at the 13 primary markets from October 1 through December 7 totaled 75.5 million bushels compared with 117 million in the same period a year earlier. Government marketings, however, have been heavy. Sales from October 1 to December 1 totaled 136 million bushels compared with 31 million for the same period a year ago.

Heavy CCC sales plus an increase in farm marketings are responsible for the weakening market prices in December. But anticipating future trends of prices will be a challenge to both farmers and government officials, Stice concludes.

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FOR IMMEDIATE RELEASE

## Find Johne's Disease In Illinois Herds

URBANA--Johne's disease, an intestinal infection seldom diagnosed in Illinois, has suddenly cropped up in cattle herds throughout the state, Dr. R. L. Brewer, University of Illinois veterinarian, reports.

Johne's disease has probably been present all along, Dr. Brewer said, but has been overlooked because it is so difficult to diagnose. The difficulty lies with the organisms that cause Johne's. Because these organisms are similar to those causing tuberculosis, laboratory tests often result in a false diagnosis.

In some aspects, Illinois cases have been contrary to the typical Johne's case. Johne's usually strikes cattle in the two- to six-year-old age bracket, but Dr. Brewer has found case after case involving calves. Also, some Illinois feeder cattle have been infected, even though Johne's is known as a pasture disease.

In most cases, 20 percent of the herd is involved. But some cases involve much greater percentages, Dr. Brewer explained. In one dairy herd containing 100 head, 50 percent of the animals had the disease. Fortunately, only 15 percent showed clinical signs.

Once cattle show clinical signs--that is, signs that can be seen easily--there is little hope of saving them. Dr. Brewer described the typical clinical case as "looking like a rack of bones with a hair coat that stands straight up, stiff as a board." The animal declines until it is too weak to stand. Usually there is extreme diarrhea.

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THE STATE OF NEW YORK

ALBANY--JANUARY 1888

REPORT OF THE COMMISSIONERS OF THE LAND OFFICE

IN RESPONSE TO A RESOLUTION PASSED BY THE SENATE

APRIL 1887

ALBANY: PUBLISHED BY THE STATE PRINTING OFFICE

1888

THE STATE OF NEW YORK

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Johne's disease is caused by microscopic organisms that infect the intestines of cattle and sheep. These organisms are transmitted from animal to animal via the feces, either directly or indirectly through food and water contaminated with fecal material.

Sanitation is the best preventive, according to Dr. Brewer. He recommends the following procedure:

1. Clean and disinfect buildings containing fecal material.
2. Isolate calves from mature animals until they are two years old.
3. Add only disease-free animals to the herd.





FOR IMMEDIATE RELEASE

## UI Leaflet Lists Latest Dairy Feeding Suggestions

URBANA--The Illinois dairyman's most up-to-date-feeding guide is the new University of Illinois leaflet, "Dairy Feeding Suggestions."

A major feature of the booklet is a listing of 31 of the most common dairy feeding questions asked by Illinois farmers. Here are a few of the questions listed and the answers U. of I. dairy scientists give.

### What Effect Does Heavy Grain Feeding Have On Mastitis?

Feeding large amounts of corn, other grains or protein will not cause mastitis in dairy cattle. Mastitis is the direct result of a mammary gland infection. However, heavy feeding accompanied by higher milk production may cause the mammary gland to work harder. This increases stress on the udder. Under such conditions, good management will keep mastitis in check.

### What About Feeding And Udder Edema?

Several experiments have shown that neither the bulkiness of the grain nor the amount fed during the dry period has much effect on udder edema at calving time. Nor does feeding determine how long the swelling persists after calving. Udder swelling seems to be more a matter of inheritance than of feeding practice.

### Do Dairy Herds Need A Vitamin A supplement?

Vitamin A deficiency in dairy cattle is rarely a problem if cows are on pasture or receiving green chopped forage during the summer months. However, it may occur after prolonged periods of feeding poor-quality

The following is a list of the items...

Section 1: General Information

This document contains information regarding the... The purpose of this document is to provide a clear and concise overview of the... The information is organized into several sections, each covering a different aspect of the... The first section, titled 'General Information', provides an overview of the... The second section, titled 'Detailed Information', provides a more in-depth look at the... The third section, titled 'Conclusions', summarizes the key findings of the... The fourth section, titled 'Recommendations', provides suggestions for future... The fifth section, titled 'References', lists the sources used in the... The sixth section, titled 'Appendix', contains additional information... The seventh section, titled 'Index', provides a quick reference to the... The eighth section, titled 'Glossary', defines the key terms used in the... The ninth section, titled 'Bibliography', lists the works cited in the... The tenth section, titled 'Footnotes', provides additional information... The eleventh section, titled 'Endnotes', provides additional information... The twelfth section, titled 'References', lists the sources used in the... The thirteenth section, titled 'Appendix', contains additional information... The fourteenth section, titled 'Index', provides a quick reference to the... The fifteenth section, titled 'Glossary', defines the key terms used in the... The sixteenth section, titled 'Bibliography', lists the works cited in the... The seventeenth section, titled 'Footnotes', provides additional information... The eighteenth section, titled 'Endnotes', provides additional information... The nineteenth section, titled 'References', lists the sources used in the... The twentieth section, titled 'Appendix', contains additional information...

Section 2: Detailed Information

This section provides a detailed overview of the... The information is organized into several sub-sections, each covering a different aspect of the... The first sub-section, titled 'Sub-section 1', provides an overview of the... The second sub-section, titled 'Sub-section 2', provides a more in-depth look at the... The third sub-section, titled 'Sub-section 3', summarizes the key findings of the... The fourth sub-section, titled 'Sub-section 4', provides suggestions for future... The fifth sub-section, titled 'Sub-section 5', lists the sources used in the... The sixth sub-section, titled 'Sub-section 6', defines the key terms used in the... The seventh sub-section, titled 'Sub-section 7', lists the works cited in the... The eighth sub-section, titled 'Sub-section 8', provides additional information... The ninth sub-section, titled 'Sub-section 9', provides additional information... The tenth sub-section, titled 'Sub-section 10', lists the sources used in the... The eleventh sub-section, titled 'Sub-section 11', contains additional information... The twelfth sub-section, titled 'Sub-section 12', provides a quick reference to the... The thirteenth sub-section, titled 'Sub-section 13', defines the key terms used in the... The fourteenth sub-section, titled 'Sub-section 14', lists the works cited in the... The fifteenth sub-section, titled 'Sub-section 15', provides additional information... The sixteenth sub-section, titled 'Sub-section 16', provides additional information... The seventeenth sub-section, titled 'Sub-section 17', lists the sources used in the... The eighteenth sub-section, titled 'Sub-section 18', contains additional information... The nineteenth sub-section, titled 'Sub-section 19', provides a quick reference to the... The twentieth sub-section, titled 'Sub-section 20', defines the key terms used in the...

Section 3: Conclusions and Recommendations

This section provides a summary of the key findings of the... The information is organized into several sub-sections, each covering a different aspect of the... The first sub-section, titled 'Sub-section 1', provides an overview of the... The second sub-section, titled 'Sub-section 2', provides a more in-depth look at the... The third sub-section, titled 'Sub-section 3', summarizes the key findings of the... The fourth sub-section, titled 'Sub-section 4', provides suggestions for future... The fifth sub-section, titled 'Sub-section 5', lists the sources used in the... The sixth sub-section, titled 'Sub-section 6', defines the key terms used in the... The seventh sub-section, titled 'Sub-section 7', lists the works cited in the... The eighth sub-section, titled 'Sub-section 8', provides additional information... The ninth sub-section, titled 'Sub-section 9', provides additional information... The tenth sub-section, titled 'Sub-section 10', lists the sources used in the... The eleventh sub-section, titled 'Sub-section 11', contains additional information... The twelfth sub-section, titled 'Sub-section 12', provides a quick reference to the... The thirteenth sub-section, titled 'Sub-section 13', defines the key terms used in the... The fourteenth sub-section, titled 'Sub-section 14', lists the works cited in the... The fifteenth sub-section, titled 'Sub-section 15', provides additional information... The sixteenth sub-section, titled 'Sub-section 16', provides additional information... The seventeenth sub-section, titled 'Sub-section 17', lists the sources used in the... The eighteenth sub-section, titled 'Sub-section 18', contains additional information... The nineteenth sub-section, titled 'Sub-section 19', provides a quick reference to the... The twentieth sub-section, titled 'Sub-section 20', defines the key terms used in the...

Section 4: Appendix

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roughage the year round or when cattle subsist largely on concentrates with small amounts of good hay. Dairymen who have some doubt about vitamin A intake in their herds may want to feed a supplementary source of vitamin A. A feed supplement providing 10,000 international units of vitamin A per cow daily should be sufficient.

What Are The Benefits Of Pelleted And Wafered Hay?

If the quality of hay put into wafers, pellets or standard bales is the same, you can expect the amount of hay consumed and the amount of milk produced to be about the same. Butterfat tests may drop when only pelleted hay is fed. Making some long hay or silage available with the pellets usually eliminates the problem. Butterfat tests are not affected by unground hay fed in wafered form.

What About Antibiotic Supplements?

In controlled experiments, antibiotic supplements have not caused a significant boost in milk production. When milk production falls from such diseases as bacterial diarrhea, foot rot and respiratory infections, removing the stressing agent can boost production. In these cases, it's best to have a veterinarian prescribe specific control measures.

Dairymen interested in the "Dairy Feeding Suggestions" leaflet can get a copy from their county farm adviser or from the University of Illinois College of Agriculture in Urbana.





FOR IMMEDIATE RELEASE

## Oriented Corn Shows Promise

URBANA--A simple, inexpensive attachment to the boot of a normal corn planter may pave the way for more efficient production by allowing corn plants to grow in the same direction. But at present this work, called orienting corn, is strictly experimental, cautions University of Illinois agronomist A. L. Lang.

This year's corn yields on the Ward Reynolds farm near Oneida favored oriented corn. While the increases were not great, neither was the cost of the attachment.

Why may orienting corn be important? There's evidence that corn planted and growing in the same direction makes better use of the sun's energy than normally planted corn at a time when light is essential, says Lang.

In this year's study, almost 60 percent of the kernels were oriented with a planting rate of 18,500 per acre. With a rate of 21,500, more than 55 percent of the kernels oriented. Under conventional planting with these respective plant populations, about 38 percent of the kernels oriented.

Next year's plan for oriented corn work calls for more refinement in the experiment, says Lang. With the orienting arrangement on only one planting boot this year, Reynolds could plant only two rows of oriented corn next to two rows of conventionally planted corn. Next year Reynolds will have the help of a machinery company in refining his orienting attachment. Then it will be possible to check yields on four consecutive rows of oriented corn instead of this year's two rows.



Protozoa Can Survive For Months  
When Frozen

URBANA--A one-celled organism or protozoan that causes abortion in cattle can survive for at least six months when frozen in a super-deep freeze, Dr. Norman Levine, University of Illinois parasitologist, reported at the 14th annual meeting of the Society of Protozoologists in Denver.

The fact that these protozoa, called Tritrichomonas foetus, can live so long while frozen is important for two reasons, according to Dr. Levine. First, semen for artificial insemination of cattle is preserved by adding glycerin and freezing. If these organisms are present in the semen, they can live to cause abortion.

Second, studying protozoa has been time consuming and costly because scientists must constantly cultivate them. Freezing is more efficient and much cheaper, according to Dr. Levine.

Dr. Levine's paper, "Survival of Tritrichomonas foetus upon extended frozen storage," deals with the length of survival of protozoa under various temperatures. Most protozoa frozen at -18 and -98 degrees F. died after 128 days. Those that lived, he said, were sluggish and inactive.

But, when protozoa are frozen at a much lower temperature, -140 degrees F., the ones that survive the first few days survive well even after 512 days.

Dr. Levine presented the paper during the four-day conference which began December 27. The paper was written in conjunction with Mr. Ferron L. Andersen, a former U. of I. graduate student.



Report Second Case Of Infection  
With Theileria

URBANA--For the second time in North America, a case of infection with Theileria, a blood parasite of cattle, sheep and other animals, has been reported.

The case was presented to the Society of Protozoologists in a report written by Dr. Wilhelm Schaeffler, former University of Illinois graduate student, on December 27 in Denver.

According to the report, Theileria was recently discovered in a white-tailed deer from Missouri.

There are several species or kinds of Theileria. One species, Theileria parva, causes east coast fever in African cattle. This disease kills 90 percent of its victims.

Until Theileria was discovered in Missouri, the parasite had been reported only once in North America. Strict quarantine regulations for cattle and other livestock from Africa, Asia and parts of Europe where Theileria is prevalent have kept this parasite out of the United States.

Dr. Schaeffler made a thorough study of the strain of Theileria found in Missouri. It was fatal to deer, he reported, but it could not be passed on to cattle or sheep.

In addition to studying the parasite, Dr. Schaeffler developed a diagnostic test that can be used successfully for detecting any strain of Theileria.

The test, a capillary agglutination test, consists of mixing the animal's serum with a solution containing Theileria. If the animal being tested is infected, clumps will form in the capillary tube containing the mixture.

Because Dr. Schaeffler was unable to attend the Denver meeting, Dr. Norman Levine, U. of I. parasitologist, presented his paper.



Lagoons Offer Most Economical  
Hog Manure Disposal Method

URBANA--New systems of specialized livestock and poultry production are lowering the favorable opinion of manure that farmers and scientists have held for many years. In confinement hog production, manure may cost more to handle and spread on the field than it is worth as fertilizer.

After a study of confinement hog production on Illinois farms, Roy N. Van Arsdall, USDA agricultural economist at the University of Illinois, believes that using a lagoon system to dispose of manure in liquid form and buying commercial plant foods to supply crops is the most profitable combination for the average farmer.

With a lagoon system, the operator flushes the manure from the buildings and lots into a lagoon or pond, where it is stabilized by bacterial action. Cities and factories have used this waste disposal method for many years, but only in recent years has it come into use for animal production.

Manure handling is a costly part of confinement hog production. Van Arsdall estimates that cleaning buildings and handling manure takes three-fourths of the labor used in confinement growing and finishing of hogs.

Most farmers now finishing their hogs in confinement put bedding in their barns and remove the solid manure with tractor-powered equipment. But most newly designed finishing buildings provide for



handling manure as a liquid. The manure is scraped or flushed from the feeding floor each day and is carried by water to a storage tank or disposal area. Slatted floors may be used extensively in the future to ease the job of cleaning.

Some farmers have attempted to store and spread liquid manure. They use a concrete storage tank holding 25 to 30 gallons per hog and an electric auger to pump the manure from storage to a tractor-drawn applicator tank holding 500 to 1,000 gallons. Such equipment costs about \$2 per market hog for a producer with 2,500-hog capacity. But if he raises only 250 hogs, it will cost him about \$6 a hog. Annual costs for storing, pumping, hauling and spreading liquid manure range from about 60 cents to \$1.28 per hog, depending on the size of the operation.

Building the lagoons for disposing of liquid manure costs from 30 to 80 cents per market hog, depending on size of operation. Operators using the lagoons find that maintenance costs are low. And they eliminate the costly and disagreeable task of pumping, hauling and spreading manure throughout the year. All of the fertility value of the manure is lost, however.

The value of the manure as fertilizer depends on how it is handled. Van Arsdall estimates that fresh manure from a hog growing from 50 to 220 pounds is worth about \$1.62 based on 1960 fertilizer prices. If a hog producer could preserve all of this fertility value, he could realize about \$1 per hog above costs from using the manure compared with regular commercial fertilizer.

But ideal conditions for maintaining the full fertilizer value are seldom possible. The typical producer will probably lose one-half to three-fourths of the fertility value in hog manure that is handled

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as a liquid, Van Arsdall points out. The nutrient losses begin on the feeding floor and continue while the manure is in storage and lying in the fields. Also, much of the potential value is lost when manure is spread on low-value crops and wasteland at certain times of the year.

A producer who could manage to recover half the original value of his manure could pay the extra storage and spreading costs and realize about \$1.20 an hour for his labor, Van Arsdall figures. Larger operations might do a little better, since the equipment can be used to better advantage.

But if fertility losses run greater than 50 percent, the manure will not pay the additional costs of getting it on the land, Van Arsdall concludes.













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