

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul 55101 -- Tel. 647-3205  
September 3, 1965

Immediate release

Note to editor: The Iowa State University Statistical Laboratory has indicated that a number of families from your community and/or area will be involved in the 12-state study.

#### REGIONAL NUTRITION STUDY TO INCLUDE LOCAL FAMILIES

A selected number of local families will be involved in September and October in a 12-state regional study on the diets of preschool children.

Twenty-four families each in Minneapolis and Duluth, 12 families in Mankato, 9 families in Gilbert, 7 in Litchfield and 10 in Lake City will be among the 2,200 families with preschool children interviewed in the 12-state area.

Also included will be 15 families from Plainview; 14 rural families from St. Louis County; 12 rural families from Sterling township in Blue Earth County and 17 rural families from Kingston township in Meeker County.

Selection of the locality and families to be interviewed has been made by the Iowa State University Statistical Laboratory at Ames. The 2,200 families interviewed will be representative of all families with preschool children living in Minnesota, Wisconsin, North and South Dakota, Nebraska, Kansas, Missouri, Illinois, Indiana, Iowa, Michigan and Ohio.

Marguerite Burk, professor of agricultural economics and home economics, School of Home Economics, University of Minnesota, is a member of the regional committee for the project. Nutritionists indicate that while much is now known about the food habits of school age children, young adults and older persons, little is known about the adequacy of the diets of children below school age.

The U. S. Department of Agriculture through the Cooperative State Research Service and the Consumer and Food Economics Research Division is collaborating in the regional program.

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## PLOWING CONTEST TO FEATURE NEW CONSERVATION PRACTICE

The latest advancements in terrace design will be featured at Plowville, U.S.A., during the 1965 State and National Plowing Contest and Conservation Field Days Sept. 17-18 at the Powell farms three miles north of Waseca.

These new parallel level terraces with steep grassed backslopes and tile inlets, commonly called "push-up terraces," will be on display in both finished and unfinished stages.

Push-up terraces, which have already been installed on several farms in Minnesota, originated in Iowa where they met with considerable acceptance.

What are the advantages of push-up terraces? James Swan, extension soils specialist, and Curtis Larson, professor of agricultural engineering at the University of Minnesota, list five:

1. Greater ease to farming than standard non-parallel terraces as point rows are held to a minimum and eliminated in many cases.
2. Allow use of more intensive rotations and still control soil erosion and runoff.
3. Seedbed backslopes require little maintenance.
4. Tile inlets do away with grass waterway terrace outlets. And
5. Considerably wider spacing between terraces than with standard terraces.

Other conservation practices, including rotations, grass waterways and strip cropping, will be shown at the Field Day.

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## TESTED BOAR SALE SET FOR SEPT. 8 AT WORTHINGTON

The Minnesota Swine Producers Association will sponsor another performance tested boar sale Wednesday evening (Sept. 8) at the Nobles County Fairgrounds in Worthington.

Four "station" and 52 "on-the-farm" tested boars from all major breeds will be offered at the sale, scheduled to begin at 8 p.m.

"This is an excellent opportunity for producers and breeders who missed the Association's first sale at New Ulm in August to purchase top quality boars with complete performance records at reasonable prices," says C. J. Christians, University of Minnesota extension animal husbandman and supervisor of the Minnesota Swine Improvement Program.

All boars must meet rigid requirements for growth rate, feed efficiency and meatiness to be eligible for the sale, he explains. Littermate market pigs tested at the testing station must have met carcass certification standards of less than 1.6 inches of backfat, more than 29 inches in length, more than four square inches of loin eye area and more than 14 percent ham of liveweight.

According to Christians, these market pigs had to weigh 200 pounds within 156 days and gain 100 pounds with less than 320 pounds of feed.

Sales manager Leon Koziolk reports that a minimum selling price has been established and no boars will be sold for less than \$85.

For more information on the Worthington sale, contact either Koziolk at New Richland or Christians at Extension Animal Husbandry, 101 Peters Hall, Institute of Agriculture, St. Paul, Minn. 55101.

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To all counties  
ATT: Home Agents  
Immediate release

CAN 'EM TO PRESERVE  
GARDEN FRESH FLAVOR

When canning tomatoes or tomato juice, choose sound ripe tomatoes and check processing time recommended for Minnesota to enjoy the right-from-the-garden flavor throughout the year.

In Minnesota, organisms associated with tomatoes are more difficult to destroy; therefore a longer processing time is recommended. But the vitamin C content is not destroyed by the longer processing because the food is heated in the absence of air.

Two methods of processing are acceptable in Minnesota - the raw pack or the hot pack method. Even though tomatoes are somewhat acid they should be processed in the hot water bath, says Verna Mikesh, extension nutritionist at the University of Minnesota. Open kettle canning is not recommended.

The raw pack method is quick and easy. After removing skins and cores, press the tomatoes down gently into jars. Add one teaspoon salt per quart. Because tomatoes shrink considerably, pack to  $\frac{1}{2}$  inch of the top of the jar. Process in the boiling water bath 40 minutes for pint jars and 50 minutes for quart jars.

To assure your jars of being filled after processing you may want to use the hot pack method instead. Heat tomatoes gently in their own juice and bring to a boil. Put the heated tomatoes and juice in jars, filling to  $\frac{1}{4}$  inch from the top. Add one teaspoon salt per quart, and process in the boiling water bath for 35 minutes for pints and 45 minutes for quarts. Jars will then be filled as tomatoes have shrunk upon heating before placing in jars.

When processing tomato juice, you need not peel the vegetable. After cooking tomatoes gently until soft, put the tomatoes through a strainer and add one teaspoon salt per quart. Reheat the juice until just boiling. Fill jars to  $\frac{1}{4}$  inch of the top, carefully wipe jar rims and adjust lids. Process in boiling water bath for 35 minutes for both pints and quarts.

Homemade tomato juice separates when stored because the particles will not hold in suspension throughout the liquid. Before serving, shake or stir the juice.

Extension Folder 100, Home Canning of Fruits and Vegetables, available at county extension offices, gives directions and time tables for processing tomatoes.

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To all counties  
Immediate release

UM PROF STRESSES  
NEED FOR GOOD  
SOIL SAMPLES

It should go without saying that soil test results can only be as accurate as the samples on which the tests are made.

And according to John Grava, associate professor of soil science at the University of Minnesota, the key to a good soil sample is that it be truly representative of the area from which it is taken.

He explains that since soils not only vary from field to field, but even from place to place within the same field, it is impossible to make general recommendations for the soils of each area.

Soils, he says, vary greatly in their ability to supply plant food to crops, and they differ in their origin, their development, the crops grown on them and their lime and fertilizer needs.

add 1 - soil samples

Grava lists several steps that should be followed in order to get a sample that is representative of the field being tested:

Divide each field into uniform areas. Make sure each area you select has the same texture, cropping history and past fertilizer treatment.

Avoid--or sample separately--low spots, dead and back furrows, old straw piles, terraces and fence rows and fertilizer bands.

Sample each area separately. Scrape away the grass and litter. Take a core slice of soil from the surface to plow depth. On permanent pastures and fields in sod, sample only three inches deep. Put the core or slice in a clean pail.

Repeat the sampling in 15 to 20 places and mix the soil. Then fill the sample box or a pint container--that's all it takes--and you have a composite sample. Label each container with the sample number and your name and address. Keep a record of where you took samples.

Fill out the information sheet as completely as possible. The State Soil Laboratory and the county agent need this information to make lime and fertilizer recommendations.

If the soil is wet, don't dry it on a stove or in an oven. Let it air dry or mail it immediately to the laboratory, together with the information sheet and an envelope containing the payment.

Mail to the Soil Testing Laboratory, Department of Soil Science, University of Minnesota, St. Paul, Minn. 55101.

For more information on soil sampling and testing, consult your county agricultural agent. Ask him for a copy of Soils Fact Sheet No. 4, "How to Take A Good Soil Sample."

Copies are also available from the Bulletin Room, University of Minnesota, St. Paul, Minn. 55101.

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To all counties  
Immediate release

HEARING SET SEPT. 28  
TO CONSIDER CHRISTMAS  
TREE GRADES, STANDARDS

A hearing for considering proposed grades for decorative forest products has been set by Minnesota Commissioner of Agriculture Russell G. Schwandt for 1 p.m. Tuesday, Sept. 28, in the State Office Building Auditorium in St. Paul.

The hearing is in accordance with a 1965 Minnesota Statute authorizing the Agriculture Commissioner to establish grades on all produce and to provide for inspecting and grading produce.

According to Marvin Smith, extension forester at the University of Minnesota, the "decorative forest products" for which state grades will be considered at the hearing are limited to Christmas trees.

The grades which the Minnesota Department of Agriculture will propose are identical to the U. S. grades effective since June of 1962.

Smith adds, however, that full consideration will be given to any different or additional grades proposed by industry representatives present at the hearing.

Adoption of state Christmas tree grades is necessary in order to comply with legal requirements by which the Department of Agriculture may offer state-federal grading service for Christmas trees under a revision of the law by the 1965 Legislature.

Smith says that anyone who has an interest in Minnesota's Christmas Tree industry is urged to take part in the Sept. 28 hearing.

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IN BRIEF.....

Brand registration: Brands and marks for cattle, horses, sheep and mules are no longer to be registered with the County Register of Deeds. Dr. Ray Solac, extension veterinarian at the University of Minnesota, explains that the livestock sanitary board will register brands and publish a state-wide brand book.

\* \* \* \*

Don't be too alarmed if your evergreens are looking a little sick this time of year. It may be a simple case of old age--for the needles, that is. Herb Johnson, extension plant pathologist at the University of Minnesota, explains that in late summer and early fall, the older needles toward the center of the trees mature. And it's a normal process for them to die and drop off. After the needles have dropped, the trees will look normal and healthy again, provided that the needles toward the center of the trees are the ones that are dropping off. If the needles at the ends of the branches are dying, you may have a problem.

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Bull Rental: Anyone regularly renting three or more bulls must obtain a license and each bull must be registered with the State Livestock Sanitary Board. Dr. Ray Solac, extension veterinarian at the University of Minnesota, says that this act, which is concerned with health requirements, becomes effective Jan. 1, 1966.

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It's often a good idea to use a light mulch around newly planted trees and shrubs during their first winter, according to Gus Hard, University of Minnesota extension horticulturist. A mulch helps prevent deep freezing of the soil and also helps delay freezing so that roots will develop later in the fall.

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Immediate release

#### N. E. LIVESTOCK SHOW SCHEDULED FOR SEPTEMBER

Some 170 4-H club members from 14 counties will show their choicest animals at the 31st annual Northeastern Minnesota Junior Livestock Show at the Duluth Curling Club in Duluth Sept. 14 and 15.

The Duluth Chamber of Commerce sponsors the show in cooperation with the Agricultural Extension Services in Aitkin, Beltrami, Carlton, Cass, Cook, Crow Wing, Hubbard, Itasca, Kanabec, Koochiching, Lake, Pine, Lake of the Woods, North and South St. Louis counties.

Tuesday, Sept. 14, has been set as entry day. Registration will begin at 9 a. m. and close at 1:30 p. m. Poultry will be judged Tuesday afternoon, and sheep, hogs and beef on Wednesday morning (Sept. 15). Showmanship contests are also scheduled for Wednesday morning. Mark Schneider, FFA member from Cotton, will give a beef showmanship demonstration at 11 a. m. Wednesday.

Presentation of awards will be made Wednesday afternoon. At that time the Lenroot traveling trophy and a plaque will be awarded to the county receiving the largest number of points in the show. Aitkin County received the trophy last year.

The livestock auction has been set for 1:45 p. m. Wednesday (Sept. 15). Thirty percent of the total entries of each livestock class will be sold at auction provided they are in the purple ribbon group. The rest of the livestock and poultry will be sold to Duluth packing houses or individuals or to bidders from the home county as arranged by the county agricultural agent.

A tour of the Duluth air base, a roller skating party and special dinners and luncheons have been arranged for the exhibitors.

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54-220-jbn

Department of Information  
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Immediate release

#### 4-H MARKET LIVESTOCK SHOW TO BE HELD

Nearly 750 Minnesota 4-H members will bring their prize market livestock to the new State 4-H Market Livestock Show on the State Fair Grounds Monday, Sept. 27.

The three-day show, Sept. 27-29, replaces the Junior Livestock Show held in South St. Paul for the past 46 years.

"The show will support the production of quality market livestock by 4-H'ers, in tune with today's market needs and consumer demands," Leonard Harkness, state 4-H Club leader at the University of Minnesota, said in commenting on the new event.

The Minnesota Livestock Breeders' Association will sponsor the State 4-H Market Livestock Show.

In the live show, grand championship awards of \$300 will be given for beef, \$200 each for barrows and lambs. Donor of the awards will be the Minnesota Livestock Breeders' Association. Equal awards in the newly instituted carcass contest will be given by Armour and Swift Packing Companies of South St. Paul.

Cash awards provided by business firms will supplement the premiums paid by the Minnesota Livestock Breeders' Association for breed champions, blue and red ribbon exhibitors in the live show and blue ribbon exhibitors in the carcass contest.

Breed championship awards have been set by the Show's Finance Committee in the amounts of \$100 for beef breeds, \$50 each for hog and sheep breeds. The size of blue and red ribbon awards will depend on the total support received and the number of winners. Co-chairmen of the Finance Committee are Harold Macy, dean emeritus of the University of Minnesota's Institute of Agriculture, and W. L. Boss, vice president of the First National Bank, St. Paul.

Judging of all species begins at 8:30 a.m. Tuesday, Sept. 28. Following the judging, animals will be trucked to South St. Paul for sale on the open market by commission companies chosen by the 4-H'ers. The traditional auction of selected animals has been discontinued.

During the show 4-H members will study the marketing and processing of livestock as part of their educational program.

Monday evening, Sept. 27, the 4-H'ers will be entertained at a banquet sponsored by the St. Paul Area Chamber of Commerce in the 4-H Building on the State Fair Grounds. Business firms supporting the show will be represented at the banquet.

Following the judging on Tuesday evening, Sept. 28, 4-H members will attend either the Guthrie Theatre or the Cinerama production. Concluding event of the show will be an educational program in South St. Paul Wednesday, Sept. 29, culminating in an awards luncheon with South St. Paul businessmen.

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54-218-jbn

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Immediate release

## SEED CORN PLOTS TO BE FEATURED AT FLOWVILLE

Visitors at the 1965 State and National Plowing Contests and Conservation Field Days near Waseca Sept. 17-18 will have a chance to view first-hand over 100 different varieties of seed corn from 13 different companies.

The corn plots are located on the north side of the Harlan Powell farm, this year's Flowville, U. S. A., which is three miles north of Waseca.

The corn demonstrations are among a number of educational features being planned by local agricultural agencies and by several units of the University of Minnesota Institute of Agriculture.

Continuous tours leaving from the educational tent, will begin at 9 a. m. on both days, according to Roger Wilkowske, Waseca County agricultural agent.

Weed control treatments used on the corn plots include Radox, Ramrod, Knox-weed, Fenaben, Cypromid (Clobber) and Atrazine. Insecticides used include Aldrin, Diazinon and Aldrex .

Some plots had 400 pounds of 6-24-24 starter plus nitrogen sidedress, while others had 6-30-8 starter, potash broadcast and nitrogen pre-plant and sidedress. Still others had trace elements added and some had no fertilizer. Planting date was May 20.

Included in the demonstrations is a fertilizer trial sponsored by the Waseca County Extension Service and Midland Co-op of Waseca.

There are three plots with 200 pounds of 0-25-25 broadcast, 175 pound starter and 70, 100 and 150 pounds of nitrogen sidedress. Three plots have a 200 pound 0-25-25 broadcast, 210 pounds of 6-24-24 starter and 70, 100 and 150 pounds of nitrogen sidedress. One plot has 440 pounds of 0-25-25 broadcast, no starter and 100 pounds of nitrogen sidedress.

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65-219-jak

Department of Information  
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Institute of Agriculture  
St. Paul, Minnesota  
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Immediate release

## CORN, SOYBEAN DAYS SET AT UM BRANCH STATIONS

Corn and soybeans, Minnesota's two major row crops, will move into the spotlight this month during four fall field days at University of Minnesota branch experiment stations.

Dates for the field days are Sept. 14 at the Southwest Experiment Station at Lamberton; Sept. 15 at the Southern School and Experiment Station at Waseca; Sept. 17 at the West Central School and Experiment Station, Morris; and Sept. 21 at the Agricultural Experiment Station near Rosemount.

Major attractions at the events this year will include corn hybrid and soybean variety performance trials, fertilization, tillage practices and weed control. Each field day will feature tours of experimental plots.

Specific features at the different field days include:

Southwest Station, Lamberton, Sept. 14: Corn rootworm problems; the effects of nitrogen and phosphorus on corn; weed control with herbicides and flaming; and row spacing, planting rates, weed control, and fertilization of soybeans. Tours will run from 9 a. m. to 3 p. m.

Southern Experiment Station, Waseca, Sept. 15: Corn breeding work; the unusual corns that are planted in the corn "zoo"; corn borer and rootworm studies; soybean varieties; the use of the hormone TIBA on soybeans; row spacings and population studies of soybeans. Tours begin at 10 a. m. and run to 6 p. m.

West Central Station, Morris, Sept. 17: Inbred and single cross corn observation plot; corn and soybean row spacing and plant population studies; sorghum and sudan-sorghum crosses; tillage and fertilization; and deficiency symptoms. Tours will start at 1 p. m.

Rosemount Station, Sept. 21: Soybean varietal plots; corn hybrid studies; disease and insect problems. Sessions start at 1 p. m.

The public is invited to each of the four field days.

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65-219-vak

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#### U FRUIT FARM VISITORS' DAY SEPT. 18

Visitors' Day at the University of Minnesota Fruit Breeding Farm near Excelsior has been scheduled for Saturday, Sept. 18, L. C. Snyder, head of the University of Minnesota's Department of Horticultural Science, has announced.

The annual event, which is open to the public, is sponsored by the University Fruit Breeding Farm staff and the Minnesota State Horticultural Society. It is held to give visitors an opportunity to see at first hand how new fruit varieties are tested and to acquaint the public with other work of the 230-acre Fruit Farm, especially in developing new varieties for northern climates.

Guided trailer tours will begin at 10 a. m. and again at 1:30 p. m. from the administration building of Fruit Farm No. 1. The tours will include visits to various test orchards where varietal and cultural experiments are conducted. Visitors will see different varieties of apples, pears, other tree fruits and various small fruits in the breeding program and will observe demonstrations of apple grading and packing. An opportunity will be given to ask questions regarding disease, insect and fruit cultural problems.

Visitors are invited to bring their picnic lunch. Picnic tables will be provided and coffee will be served.

Individual groups are also invited to visit the Landscape Arboretum located near the Fruit Farm, Snyder said. A printed tour guide available at the Arboretum office will indicate points of interest.

The University Fruit Breeding Farm No. 1 is located southwest of Excelsior on State Highway 5 -- two miles west of the intersection of Highways 5 and 41.

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65-218-jbn

Department of Information  
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#### UM EXTENDS AGRICULTURE COURSES TO 23 CITIES

The University of Minnesota's Institute of Agriculture, through its Graduate-Professional Improvement Program, will offer courses during the coming academic year in 23 Minnesota communities.

In addition to increasing the number of course locations this year, the Institute of Agriculture has added two new types of courses to its list of offerings.

The first, "Comprehensive Professional Improvement Courses," are designed especially to meet the specific and changing needs of professionals in agriculture and related fields, explains LaVern A. Freeh, chairman of the Institute's Graduate-Professional Improvement Committee.

According to Freeh, professional improvement courses are offered for certificate credit, applicable to General Extension Division certificate programs. Such credits, however, may not be used in a degree program.

The University's Office of Admissions and Records will record students' grades on a regular General Extension Division transcript. At the student's request, copies of the transcript will be sent to his employers to become a part of his professional record.

The other new courses being offered this year are Short Intensive Professional Improvement Seminars. These are designed to meet specific technical needs of professional workers. They are discussion oriented and meet for nine hours during a quarter, usually three 3-hour sessions.

The other courses being offered again this year are the graduate level courses for advanced degree credit.

"These three types of courses are being offered to provide professional persons in the state with an opportunity to continue and extend their education so as to better cope with the complex challenges of a rapidly changing world," Freeh explains.

"The program is not designed to meet all of the continuing educational needs of professional persons," he says, "rather, it presents a core of offerings around which professional workers and agencies can build a professional improvement program to meet their specific needs."

The courses are especially oriented to meet the needs of agricultural extension personnel, vocational agriculture, home economics and other high school instructors, forestry personnel and professional employees in agribusiness and industry.

(more)

add 1 --agricultural courses

There is a \$11 charge per credit per quarter for the graduate degree and comprehensive professional improvement courses. There is no charge, however, for the short intensive professional improvement seminars.

Ten courses will be offered in 10 cities during the fall quarter which begins in October. The schedule is as follows:

Graduate credit courses--Home Economics (160A) will be offered in Marshall Friday evenings from Oct. 8 - Dec. 10; Rhetoric (169), Minneapolis, Thursdays, Oct. 7-Dec. 9; Soil Science (119), Rochester, Tuesdays, Oct. 5 - Dec. 7; Advanced Methods for Teaching Agricultural Mechanics (MeAg 131), Montivideo, Tuesdays, Oct. 5 - Dec. 7; Swine Production (AnHus163), St. Paul, Wednesdays, Oct. 6 - Dec. 8

Professional Improvement Courses -- Current Developments in Animal Nutrition, Lamberton, Thursdays, Oct. 7 - Dec. 9.

Short Intensive Courses -- Insect Control, Crookston, Tuesdays, Nov. 9, 16, 23; Livestock Housing and Equipment, Faribault, Thursdays, Oct. 7, 14, 21; and Agriculture/International Development, Thief River Falls, Thursdays, Oct. 21, 28, and Nov. 4; Land Zoning and Use, Grand Rapids, Tuesdays, Oct. 19, 26 and Nov. 2.

For more information write to: Department of Off-Campus Classes, 204 Continuation Center, University of Minnesota, Minneapolis, Minn. 55455 or the Department of Agricultural Short Courses, University of Minnesota, St. Paul, Minn. 55101.

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65-222-vak

Department of Information  
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To all counties  
Immediate release

IN BRIEF.....

Mushrooms that appear in lawns following a rain are the fruiting bodies of fungi that are growing on organic matter in the soil, or on buried wood such as tree roots. Herb Johnson, extension plant pathologist at the University of Minnesota, explains that the mushrooms growing in the soil can often be controlled with chemical treatment. But those growing on wood will usually persist until the wood is removed or decomposed. For further information on controlling these mushrooms, ask your county agent for Extension Folder 165, "The Home Lawn." Copies are also available from the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

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Fencing Guide Available: If you're planning to build or repair fences around your farm this fall, you might be interested in a publication by the University of Minnesota Agricultural Extension Service. Titled "Building Better Farm Fences," Extension Bulletin 272 can be obtained from the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101. This publication covers a wide range of topics on fencing, ranging from how to set corner posts to choosing the proper staples.

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Leaf spots have been showing up on Alpine Currant again this season causing many leaves to fall from these bushes. This disease has been common in Minnesota for several reasons now, reports Herb Johnson, University of Minnesota extension plant pathologist. The spots are generally less than one-eighth inch in diameter and many of them are likely to occur on individual leaves. Leaf spot can be controlled by spraying with a fungicide early in the season--during May and June. Effective fungicides include Phaltan, Zineb, Captan and Ferbam.

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To all counties  
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NARROW ROWS  
OFFER INCREASED  
SOYBEAN YIELD

Minnesota farmers interested in increasing soybean yields might consider row spacings narrower than the conventional 40 inches.

Considerable evidence accumulated from experimental and "on-the-farm" studies by the University of Minnesota shows narrow rows actually do increase soybean yields. The question remaining was how much of an increase could be expected.

R. L. Cooper, research associate, and J. W. Lambert, professor, in the University's Department of Agronomy and Plant Genetics recently completed a series of row spacing studies to attempt to answer this question.

The studies were conducted in 1963 and 1964 at various locations in Minnesota with experimental plots seeded at different dates in order to gain an overall indication of yield increases. Plots were harvested with a combine so that yields would be comparable to those obtained under general farm conditions.

Yields were consistently higher in narrow-spaced (22- or 24-inch) rows than in wide-spaced (40-inch) rows over all varieties, dates and locations. The percentage increase from narrow-spaced rows was greater for earlier varieties or when planting was delayed. However, the maximum total yield was obtained with the latest variety (Chippewa), the narrower spacing (24-inch) and the earliest planting (late May).

-more-

add 1 - narrow rows for soybeans

Cooper and Lambert concluded that yield increases from narrow rows were great enough to be of economic importance. Narrow row plantings when averaged over all varieties and dates showed yield increases of 5.9 bushels per acre in 1963 and 5.1 bushels per acre in 1964 above yields for wide-spaced plantings. Soybean yields from the narrow rows averaged 23 and 24 percent above yields from wide-spaced rows in 1963 and 1964.

Researchers point out, however, that farmers must consider certain other factors before changing to narrow row plantings. Harley Otto, extension agronomist, and Paul Hasbargen, extension economist, at the University of Minnesota point out that other factors must also be considered.

Additional costs of switching to narrow rows should be estimated and compared with the expected increase in returns. Using machinery, herbicide, seed and labor costs estimated by University of Illinois agricultural economists, Otto and Hasbargen say the change from new four-row equipment (40-inch) to new six-row (30-inch) equipment would add \$4.67 in costs per acre for soybeans. This assumes that part of the cost of new machinery is charged to corn production.

To cover this added cost, farmers would need a two bushel increase in average yield. Also, if small yield increases are expected, a fairly large acreage is needed to justify switching.

Most Minnesota farmers use the same row width for all row crops. Thus, the switch to narrow rows for soybeans has been limited by the width of corn rows. Change has been held up because of the lack of suitable harvesting machinery, but several machinery companies are now marketing harvesting machinery for grain corn produced in 30-inch rows.

Other factors to be considered before changing to narrow rows include the present condition of available machinery and present production practices.

Otto and Hasbargen point out that a grower producing at a low yield level should consider improving the fertility of his land, practicing better weed control and choosing better varieties before investing in new machinery for narrow row production.

The research by Cooper and Lambert, as well as the studies by Otto and Hasbargen were reported in the recent issue of Minnesota Farm and Home Science, a publication of the University Agricultural Experiment Station.

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HUNTING, FORESTRY  
MANAGEMENT LINKED  
IN PARK MANAGEMENT

Hunting seasons in a public park seem to be an important part of forest management. Evidence for this comes from a "deer enclosure" study in Itasca State Park.

Wildlife biologist William Marshall from the University of Minnesota last week explained the study to a group of county extension agents at the Lake Itasca Forestry and Biological Station.

The enclosure is a one-and-a-half acre surrounded by deer-proof fence built in 1937. One kind of evidence this enclosure gives is that keeping deer numbers down can protect and help maintain such trees as white, red and jack pines. The difference is especially important in a park where vegetation is a major attraction to visitors.

Another kind of evidence comes from the history of hunting and what has happened to certain plants in the rest of Itasca Park since hunting began there.

add 1 - hunting, forestry management

Itasca park was made a refuge in 1895, and no hunting was allowed there for the next 50 years. The deer population during that time built up to extremely high levels, reaching about 40 per section in 1935, 75 in 1939 and 80 in 1942.

During these years there were large losses of deer due to winter starvation, which dropped deer numbers to 45 per section.

In 1945 the park was open to hunting and some 4,600 hunters took more than 2,000 deer, almost eliminating the deer population in that particular year.

Hunting continued in subsequent years, and the deer population has thus been kept at low levels--nowhere near those of the 1930's.

The exclosure was set up in 1937, and by 1946 this protected area had nearly 600 small white pine and 19 red pines over six inches high per acre, from natural seeding. Meanwhile the area outside the exclosure had no white and red pine re-production at all.

With the reduction of the deer herd, the outside area gradually showed an increase in pine growth. There were 57 white pines and 35 red pines per acre by 1951. These numbers increased until there was a high of 423 white pines and 125 red pines per acre in 1957.

Numbers inside the exclosure were even greater, because the deer had been kept out nine years longer. But inside the exclosure, numbers have been declining in recent years.

One of the explanations, Marshall says, is that complete fire protection leads to an eventual replacement of pines by hardwoods in many areas of Minnesota. Nevertheless, the importance of controlling the deer population in terms of maintaining scenic vegetation is clear.

An excessively high deer population is detrimental to both the forest and to the health and survival of the deer herd itself.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 13, 1965

To all counties  
4-H NEWS  
Immediate release  
(Poster mats enclosed)

4-H'ERS CONTRIBUTE  
TO BETTER COMMUNITIES

"And my hands to better service . . . for my community" is a part of the 4-H pledge that some 55,000 4-H'ers in Minnesota practice through their 4-H club work.

Throughout the year 4-H clubs in Minnesota stress citizenship through interest and participation in community activities.

During National 4-H Club Week, September 25-October 2, many clubs will review contributions they have made to their communities and set goals for greater service.

Among the objectives of National 4-H Club Week are increasing public understanding of 4-H aims and methods and expanding support for activities throughout the year. Through constructive use of leisure time, 4-H'ers are working with other groups to improve their communities. Given below are some illustrations of some of the service projects of 4-H clubs.

Throughout the past year Sherburne County 4-H'ers planted thousands of trees for nurseries, Christmas tree farms and windbreaks. The Baldwin Livewires 4-H Club, state conservation club of the year, cleaned up litter, trapped gophers, marked poison ivy plants and tested soil in the Sand Dunes State Forest.

add 1 - citizenship

Martin County 4-H'ers, state safety award winners, worked for continuous improvement in safety in their community. Their activities included inspection and repair of bicycles, home and farm hazard hunts, purchases of first aid kits for each family car, attic and storeroom clean-up campaigns and tagging Christmas trees with safety reminders.

Ten counties were honored on the state level for health activities requiring 4-H'ers to have annual physical and dental checkups and immunizations shots. The clubs stressed nutritious diets, good posture and personal cleanliness.

Community service projects by the 10 clubs included making tray favors for patients in nursing homes and local hospitals, sending gifts to senior citizens, shut-ins and patients in state hospitals, collecting clothing for the needy, making baby clothes for an Indian mission in northern Minnesota, contributing to major fund drives, helping with blood donor drives and conducting rat and mouse control campaigns.

With the idea of making their community a safer place to live, 35 Benton County 4-H members checked cars for safety, featured speakers and movies on highway safety and efficient operation of automobiles.

Clay, Lac qui Parle, Renville, Freeborn and Itasca counties won state honors for activities in safety and fire prevention. 4-H'ers participated in cutting down corn at blind crossroads to improve visibility, painting top and bottom basement steps white in member's homes to prevent falls, reflectorizing machinery and bicycles and encouraging fire drills in homes.

4-H'ers who are selected for State 4-H Conservation Camp at Itasca State Park have done such work in their projects as establishing a roadside park, aiding with a fire prevention campaign, making a nature trail and assisting in renovation of a showy lady slipper path. Others helped with a national Audubon bird census and put into practice a program of grass waterways, planting windbreaks and digging drainage ditches.

-smk-

NOTE: Substitute activities of your own counties.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 13, 1965

To all counties  
ATT: HOME AGENTS  
Immediate release

TEMPT APPETITES  
BY VARYING  
BREAKFAST MENUS

How's breakfast at your house? Non-existent, skimpy, hurried?

In that case, you're ignoring some of the important findings of medical scientists--that starting the day with a good breakfast is one of the keys to mental alertness, productivity and efficiency, whether you're a student, a homemaker, a professional person or a factory worker.

And if that last wink of sleep means more to some of the family than taking time for breakfast, extension nutritionists at the University of Minnesota say that perhaps the solution is to wake up sluggish appetites with imaginative and different menus.

add 1 - better breakfast

Since September is "Better Breakfast Month," why not start now to add some sparkle to your breakfast menus? With a little imagination, some advance planning and use of convenience foods, you can make a quick yet interesting breakfast that will encourage late sleepers to eat a meal before dashing off to school or the office.

How can you improve the breakfast at your house? The University nutritionists give a three-point test you can use: 1) A good breakfast gives you protein, vitamins and minerals needed to repair and build the body and keep you healthy. 2) It provides fuel for body energy. 3) It tastes good.

Here are some general breakfast patterns you can follow, from light to hearty: fruit (preferably citrus), cereal or bread, milk to drink, other beverage if desired; fruit, cereal or bread or both, egg, beverage; fruit, cereal or bread or both, eggs with meat, beverage.

If you're in the habit of serving frozen concentrated orange juice each morning, your family may appreciate a combination of two different juices for variety, such as apricot and orange, or a bowl of fruit in season or a wedge of cantaloupe. Among foods that can be prepared quickly to vary the menu are ready-to-eat or quick-cooking cereals topped with fruit; pre-cooked sausage or ham that can be heated in a few minutes; ready-to-eat muffins, brown 'n' serve rolls or various breads from the bakery. Packaged mixes can come to your aid in making a wide range of hot breads.

There's no rule on how big a good breakfast should be. For most people, and particularly for children, it's good planning to have a fourth of the day's calories at breakfast and to include such protein as eggs, meat or milk. Because breakfast literally breaks a fast of 12 to 14 hours, the nutritionists say it's an important meal of the day.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul 55101 -- Tel. 647-3205  
September 14, 1965

Immediate release

#### PLAYWRITING COMPETITION PART OF TOWN/COUNTRY ART SHOW

Entries are now being accepted in the playwriting competition which has been added as a new feature of the Town/Country Art Show given annually on the University of Minnesota's St. Paul Campus.

Amateur playwrights of high school age or over who are residents of Minnesota communities of 25,000 or less are eligible to submit one original recently written one-act play, according to A. Russell Barton, Art Show coordinator. Performance time of the play must not exceed 35 minutes.

Final entry date is November 1, 1965.

The playwriting competition is sponsored by the University's Department of Rhetoric and presented by the Department of Agricultural Short Courses.

Two plays selected from the entries will be performed by the Punchinello Players in the Punchinello Playhouse on the St. Paul Campus March 28-30 during the Town/Country Art Show.

Plays should be sent to A. Russell Barton, Coordinator, Minnesota Town/Country Art Show, University of Minnesota, St. Paul, Minn. 55101. A self-addressed, stamped envelope should accompany the entry.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul 55101 -- Tel. 647-3205  
September 14, 1965

Immediate release

#### SHORT COURSE ON SHADE TREES SEPT. 20-21

Hugh Thompson, associate professor of entomology at Kansas State University, will be a featured speaker at the Shade Tree Maintenance Short Course to be held on the University of Minnesota's St. Paul Campus Sept. 20-21.

Thompson will talk on "A New Approach to Tree Problems."

Other speakers will include University of Minnesota staff members Leon C. Snyder, head of the Department of Horticultural Science; A. C. Hodson, head of the Department of Entomology, Fisheries and Wildlife; D. B. White, associate professor of horticultural science; H. G. Johnson, extension plant pathologist; and Neil Miles, extension horticulturist. Their subjects will range from protection of trees during construction, to insects and diseases of shade trees and safe use of pesticides. Bob Wright, Minneapolis, will discuss the value of a trade organization.

The afternoon session will be devoted to tree maintenance demonstrations, with emphasis on chemical root pruning, stump chipping and equipment.

The short course is sponsored by the University's Department of Horticultural Science and the Agricultural Extension Service especially for people professionally engaged in tree maintenance in parks, on public or private grounds, although the course is also open to the public. Registration fee for the two days or any part of the short course is \$4.50.

C. G. Hard, extension horticulturist at the University of Minnesota, is program coordinator.

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Institute of Agriculture  
University of Minnesota  
St. Paul 55101 -- Tel. 647-3205  
September 14, 1965

Immediate release

#### DANKERS TO RETIRE AT U

William H. Dankers, professor and extension specialist in marketing will retire from the University of Minnesota staff on September 15. He has been on the University staff in various capacities for 39 years. A native of Lake City, Minnesota, Dankers is a graduate of both the School and the College of Agriculture of the University, and received his bachelor's, master's and doctor's degrees from the University of Minnesota.

He joined the School of Agriculture staff in 1926 as a summer project supervisor. In 1929-30 he served as research assistant in agricultural economics at the University, and he became an instructor in the School of Agriculture in 1930. Dankers joined the Minnesota agricultural extension staff in January, 1938.

He is a member of Alpha Zeta, honorary agricultural fraternity and of Epsilon Sigma Phi, national honorary agricultural extension service fraternity. He has been a member of the board of directors of the Minnesota division of the American Association of the United Nations since 1948. He is also a member of the International Platform Association.

In recent years, Dankers has served on U.S. government missions to Europe, helping officials to develop better agricultural marketing procedures. In 1949-51 he was chief of Food, Agriculture and Forestry for U.S. High Commission Government in Bavaria, Germany. From 1953-54 he lectured for the U.S. State Department on U.S. agricultural policies and programs and on rural youth programs. In 1957 he conducted a marketing survey and study tour in eleven European countries and lectured for the U. S. State Department. Three years later he conducted another comprehensive marketing survey and study tour in eight European countries. In 1963 he also conducted a special survey and study tour on common market program development, the outer seven program, international trade, and the international affairs.

In May, 1962, Dankers received the Superior Service Award from the United States Department of Agriculture. This is one of USDA's highest awards. He was cited for outstanding achievement in developing a clearer understanding of marketing problems by the public and in helping improve the marketing position of farm people.

Department of Information  
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St. Paul 55101 -- Tel. 647-3205  
September 14, 1965

FOR RELEASE; 6 p.m. Thurs., Sept. 16

#### U STAFF MEMBER GETS AWARD

Mrs. Shirley Munson, assistant professor of horticultural science in charge of the food processing laboratory at the University of Minnesota, tonight (Thurs., Sept. 16) was recognized for her contribution to the advancement of packaging as an industry and as a science.

An award consisting of a plaque and a grant of \$500 to further the work in packaging education was presented to Mrs. Munson by the Minnesota chapter of the Society of Packaging and Handling Engineers at its annual awards banquet at the Capp Towers Motor Hotel, Minneapolis. The banquet was one of the highlights of the Upper Midwest Packaging and Handling Exposition being held in Minneapolis. Sherwood O. Berg, dean of the University's Institute of Agriculture, made the presentation.

Mrs. Munson has conducted research in food processing, particularly in the areas of frozen foods and frozen food packaging, since she joined the University staff in 1949. She is co-author of the popular University Agricultural Extension Service publication, Freezing Foods for Home Use. Presently she has a year's leave of absence from the University.

Active in professional organizations, she holds memberships in the Institute of Food Technologists; Phi Tau Sigma, honor society for food science; Sigma Delta Epsilon, honorary society for women in science; Phi Upsilon Omicron, home economics national professional organization; the American Home Economics Association and Mortar Board.

Mrs. Munson received her bachelor's and master of science degrees from the University of Minnesota.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota, 55101  
September 16, 1965

Immediate release

#### COMMERCIAL FLOWER GROWERS TO HAVE SHORT COURSE

A one-day short course for commercial flower growers will be held Tuesday, Sept. 28, in the Student Center on the University of Minnesota's St. Paul Campus.

The short course is sponsored by the University's Department of Horticultural Science. R. E. Widmer, professor of horticultural science, is program chairman.

Among subjects to be covered are disease control, the latest in chrysanthemum culture, growth regulators, new varieties of poinsettias and basic concepts of greenhouse planning.

Commercial floriculturists from out of state who will speak include Arthur Bezdek, Marion, Iowa; Dana Cable, Elm Grove, Wis.; Robert Whitman, Springville, Iowa; and J. C. Mikkelsen, Ashtabula, Ohio. Other speakers will be Twin Cities nurserymen and Widmer, Herbert G. Johnson, extension plant pathologist and W. F. Hueg, Jr., assistant director of the Agricultural Experiment Station, University of Minnesota.

Fee for the short course is \$5.

Information on the event is available from Department of Agricultural Short Courses, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101

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65-227-jbn

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
September 16, 1965

Immediate release

#### TURF EQUIPMENT SHOW SCHEDULED

A turf equipment show for turf maintenance personnel in the Upper Midwest and Canada has been scheduled for Oct. 5 and 6 in the Hippodrome on the Minnesota State Fair Grounds.

Sponsor of the event is the University of Minnesota's Department of Horticultural Science in cooperation with the Minnesota Golf Course Superintendents' Association.

Commercial companies from all parts of the country will exhibit the latest in turf maintenance and production machinery, irrigation, turf and landscape equipment. A special display will feature lighting for golf courses and landscaping.

Invitations to attend the showing have gone to golf course, park, cemetery and athletic field superintendents, industrial, institutional and highway maintenance personnel, sod producers and others professionally responsible for turf maintenance in a five-state area of the Upper Midwest and Canada. The show is designed to provide an opportunity for these people to become better acquainted with availability and use of turf machinery and equipment, according to D. B. White, University of Minnesota turf specialist.

# # #

65-228-jbn

Department of Information  
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Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 20, 1965

To all counties

4-H NEWS

PROJECTS BASIC  
TO 4-H PROGRAM

Minnesota 4-H'ers are "learning by doing" and learning for living through their 4-H projects.

"The project is one of the important aspects of the 4-H program," says Evelyn Harne, associate state 4-H club leader at the University of Minnesota. "It is the piece of work or study the 4-H member chooses to suit his own likes, interests, needs and home situation."

Today's projects are geared for boys and girls in town as well as country, Miss Harne points out. The science aspect is being emphasized in many projects. Many of the projects are divided into beginner, junior and advanced phases.

An example of a project in which members gain some practical experience and know-how is foods. The foods project enrolls the highest number of 4-H'ers in

add 1 - projects basic to 4-H

Minnesota. More than 23,000 girls are learning to prepare creative foods, snacks, lunches, picnics and family meals.

Some 20,000 boys and girls are enrolled in the livestock projects, which include dairy, beef, sheep, swine, rabbit, poultry, pleasure horse and dog care and training. Most popular of these projects is dairy. However, enrollment in the dog care and pleasure horse projects has increased sharply in the past year.

Learning to make their own clothing has a fascination for girls, as is indicated by the number of girls taking clothing--more than 17,000 in Minnesota. For many girls the climax in this project comes as they are selected for the county or state dress revue where they model an outfit they have made.

Another choice for girls is home improvement-family living in which they concern themselves with various housekeeping tasks, refurnishing a room, making purchases and taking care of children. This past year some 10,000 4-H'ers were enrolled in this project.

A number of projects are especially tailored for boys with a mechanical bent. Among these are automotive, electric, shop and tractor.

Outdoor projects are concerned with plant and soil science, with conservation, entomology and forestry. Horticulture projects have recently been reorganized into fruit, flower gardening, indoor gardening, lawns and landscape design, vegetable gardening and potato growing phases.

Such projects as health, safety and junior leadership appeal to many young people. Junior leadership has special interests for older 4-H members who enjoy helping leaders in the club as well as younger members.

During National 4-H Week, Sept. 25-Oct. 2, boys and girls between 9 and 19 who are not 4-H members but who are interested in "learning by doing" are invited to join a neighborhood 4-H club. See your county extension office for information about the club nearest you.

Department of Information  
and Agricultural Journalism  
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University of Minnesota  
St. Paul, Minnesota 55101  
September 20, 1965

To all counties

ATT: HOME AGENTS

APPLES HEAD LIST  
OF PLENTIFULS  
IN OCTOBER

Markets during October will be brimming with harvest abundance to help homemakers plan heartier menus for crisp autumn days.

Apples head the U. S. Department of Agriculture's list of plentiful foods, closely followed by broiler-fryers, turkey, cheese, rice, onions, shelled pecans, dried prunes and frozen concentrated orange juice.

This year's apple crop is 6 percent above average. Jonathan, Wealthy, Red Delicious and McIntosh are the varieties most widely available at present. For home use, apples keep best in the refrigerator in perforated polyethylene bags.

October marketings of both broiler-fryers and turkey are expected to be greater than last year. Since poultry prices typically reach their low point of the year during the last three months, look for frequent specials on turkey and chicken, suggests Mary Ryan, extension consumer marketing specialist at the University of Minnesota.

Plentiful cheese and rice provide the makings of many casserole dishes. And for an easy, ever popular dessert serve an assortment of cheeses with apples, grapes and other fresh fruits.

You can count on both dried prunes and concentrated orange juice--both good breakfast starters--to be reasonably priced. Production of dried prunes is up 5,000 tons over 1964 and stocks of frozen concentrated orange juice are still high.

Good news to the woman who likes to bake is the heavy supply of shelled pecans selling at moderate prices.

Don't forget onions to give zest to fall meals. The late summer crop is at an all-time high. Homegrown red and russet potatoes, squash, cabbage, tomatoes, green peppers and carrots are other abundant vegetables that will add variety to autumn menus.

Department of Information  
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University of Minnesota  
St. Paul, Minnesota 55101  
September 20, 1965

To all counties  
Immediate release

IN BRIEF.....

Nitrogen contents: Because nitrogen contents differ, comparing price differences per ton is not much help. Curt Overdahl, extension soils specialist at the University of Minnesota, gives a simple formula to convert price per ton to price per pound of nitrogen. Multiply the percent of nitrogen times 20. Divide this number into the price per ton. The result is the price per pound of nitrogen.

\* \* \* \*

Compost pile: Prepare a compost pile this fall season to insure a source of organic matter for spring gardens advises Gus Hard, extension horticulturist at the University of Minnesota. Put organic matter in a four-foot square. For each six-inch layer of leaves, add about one inch of soil. Along with the soil, mix two or three pounds of a complete fertilizer. Keep the center of the pile lower than edges and water occasionally.

\* \* \* \*

Fencing guide: A special bulletin prepared by the School of Forestry and Lakes States Experiment Station is recommended by John Neetzel, research associate at the University of Minnesota, for information on building and repairing fences. Copies are available from your county agent or from the Bulletin Room, University of Minnesota, St. Paul, Minn. 55101.

\* \* \* \*

Topdressing alfalfa: Alfalfa growers should topdress established stands of alfalfa as soon as possible this fall. Curt Overdahl, extension soils specialist at the University of Minnesota, says experiments show additional topdressing increases yields and reduces winter kill even on soils which have been well-fertilized at seeding time.

\* \* \* \*

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 20, 1965

To all counties  
Immediate release

TRENDS FOR  
FARM RECEIPTS  
AND EXPENSES

Farming operations in southern Minnesota have undergone great changes during the past 25 years.

T. R. Nodland and S. A. Engene, professors in the department of agricultural economics at the University of Minnesota, studied records kept by members of the Southwestern and Southeastern Minnesota Farm Management Services to trace the long-term trends.

Nodland and Engene note that these farmers are better than average managers, but that the changes and types of farms are typical of the area. Between 1940 and 1964, farm size increased about 15 percent for both groups. During this period, capital managed on a southwestern Minnesota farm increased from \$36,133

add 1 - trends for farm

to \$99,907 and the capital managed on a southeastern Minnesota farm rose from \$25,912 to \$60,984.

The large increase in cattle feeding in the southwestern area produced a striking change in livestock income. The value added by cattle feeding jumped from \$1,444 per farm in 1940 to \$8,562 in 1964.

Southeastern Minnesota farmers increased their emphasis on dairy cattle. The value added by dairy cattle rose from \$2,542 per farm in 1940 to \$8,265 in 1964. Poultry production decreased in both areas, but the value produced remained fairly constant.

In both areas, feed costs rose more rapidly than the value produced by livestock. Nodland and Engene say this was partly due to the shifts in kinds of livestock, but more to changing profit margins.

During this period, the value of crops produced became an increasingly large part of the total farm income in both areas. The increase was greatest in the southwestern area, where value of crops produced moved from 59 percent of total value produced in 1940-44 to 72 percent in 1960-64.

Power costs increased more rapidly than income from 1940 to 1964 in both areas. Total power costs accounted for about 10 percent of the total value produced in 1940-44, but about 15 percent in 1960-64.

Nodland and Engene indicate labor cost was the only cost that increased only modestly. Number of workers per farm fell from 2.2 in 1940 to 1.7 in 1964. Labor earnings--the amounts that would be left as salary to the farm operator if he paid hired man's wages for labor of other family members and the five percent interest on all capital used--were highest during the immediate postwar period of 1945-49.

\* \* \* \*

Department of Information  
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University of Minnesota  
St. Paul, Minnesota 55101  
September 20, 1965

To all counties  
Immediate release

ALFALFA STANDS  
REQUIRE HIGH  
POTASSIUM LEVELS

Growing alfalfa successfully requires soils naturally high in potassium or high potash fertilizer applications.

Curtis Overdahl, extension soils specialist at the University of Minnesota, reports considerable evidence shows adequate potassium levels are often overlooked when attempting to grow high yields and long-term alfalfa stands.

Overdahl says sandy soils testing low in potassium generally prevail in Minnesota north and east of a line from the Twin Cities to Alexandria. Tests in southeast Minnesota also indicate inadequate potassium levels on several fields. Treatments much above ordinary levels have shown surprising responses to potassium.

Experiments run for two years at two locations show that high rates of potassium at seeding time and topdressed later are necessary for most economical production. For long-term stands, farmers should topdress potassium annually or biannually.

add 1 - alfalfa stands require high potassium level

Experimental results that yield increases were highest when low potassium rates were applied at seeding time. With 240 pounds of  $K_2O$  topdressed after the last cutting of the previous year, alfalfa yields increased 1.5 tons per acre on plots given no seeding-time treatment. Yields rose 0.7 ton per acre on plots receiving 240 pounds per acre only at seeding time. Overdahl says conclusions about topdressing must wait until the experiment runs longer to establish results under different weather conditions.

Other considerations are important, says Overdahl. Lime rates have often been too low or neglected entirely and phosphorus deficiency lowers alfalfa yields.

Continuing experiments are attempting to determine necessary lime rates. Two-year test results show  $2\frac{1}{2}$  tons of lime increased yields .38 ton per acre and five tons of lime increased yields .8 ton per acre. These increases were from soils having a pH of 6.3 before lime treatment. Soil pH changed to 6.75 with the  $2\frac{1}{2}$  ton per acre lime application and pH was up to 7.0 with the five ton per acre treatment.

Most soils north and east of a line from the Twin Cities to Alexandria test high or very high in phosphorus. However, one experimental plot tested only medium-high. Annual treatments with 30 pounds of  $P_2O_5$  increased alfalfa yields .52 ton per acre per year during the two-year test period and treatments with 60 pounds of  $P_2O_5$  increased yields .74 ton per acre per year. In comparison, a plot testing very high, with 60 pounds of adsorbed phosphorus showed no response to identical rates of phosphorus over the two years. Results point up the value of fertilizers including both phosphorus and potassium for soils testing less than high.

Overdahl says other details are important for high yields. Soils with low organic matter content or borate deficiency should receive borated fertilizers every two or three years. Also, many soils in this area are extremely sulfur-deficient and farmers should consult with county agents to determine local conditions.

Alfalfa growers must also consider varietal selection, weed control and time of cutting. Early first cuttings result in higher quality alfalfa and increases chances of a third cutting. Cutting or grazing times must be watched for best production and prevention of winter kill.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
September 22, 1965

For release at noon  
Thursday, September 23

#### STEERS SHOW FAST GAINS ON ALL-HAYLAGE RATION

ROSEMOUNT -- Minnesota cattle feeders learned that steers showed good performance on all-haylage ration from research reported here today during the 13th Annual Beef Cattle Grasslands Field Day at the University of Minnesota's Rosemount Agricultural Experiment Station.

In the first-year phase of a four-year experiment, steers fed alfalfa-brome haylage from an airtight silo produced significantly higher gains per day than haylage fed from a conventional concrete stave silo. Steers fed a grubicide gained slightly faster than those fed no grubicide, but zinc supplements did not influence feedlot performance.

Cattle fed haylage from the airtight silo gained significantly faster, consumed more haylage dry matter and required less haylage dry matter per 100 pounds of gain than those fed from the concrete stave silo. Haylage from the airtight silo produced 1.86 pounds per day gain, compared with 1.69 pounds per day gain from haylage stored in the concrete stave silo.

Researchers point out the higher gains were probably due to increased dry matter intakes for cattle fed from the airtight silo, because haylage from both silos supplied adequate nutrients.

(more)

## add 1 --Gains on All-Haylage Ration''

No spoilage was noted in the airtight silo and only 1,170 pounds, or about 1.4 percent of material ensiled, was discarded as spoiled material from the concrete stave silo. Haylage from the airtight silo also had slightly more protein and less fiber, though nutrient content of haylage for both silos was similar when ensiled.

Researchers say ensiling alfalfa as haylage is an excellent method of storing forage because cattle consume more dry matter and nutrients than when silage is fed. Haylage offers additional advantages with less leaf loss during harvesting and less risk of rain damage because of shorter drying time. Forage put up as haylage should contain 45-55 percent moisture.

Interest in feeding zinc has increased since Purdue researchers reported zinc additions improved gains for cattle fed a high concentrate ration. Grains are normally lower in zinc than roughages, but University of Minnesota researchers wanted to investigate the effects of adding zinc to high roughage rations.

For the first 14 days of the experiment, 100 mg. of zinc was fed per head daily, but results indicate feeding zinc had no effect on gains or feed consumption.

Feeding a grubicide for the first two weeks of the experiment appeared to improve gains, with the steers receiving the grubicide gaining 1.82 pounds per day, while those receiving no grubicide gained 1.74 pounds per day. Researchers point out that the differences are not significant and that the lower number of grubs in treated steers may explain the faster growth rate.

The experiment was conducted by R. D. Goodrich, assistant professor; J. C. Meiske, assistant professor; R. M. Jordan, professor; A. L. Harvey, professor; and O. E. Kolari, associate professor, of the Department of Animal Husbandry; and G. C. Marten, assistant professor in the Department of Agronomy and Plant Genetics.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
September 22, 1965

For immediate release

#### 4-H'ERS TO VIE FOR AWARDS IN MARKET LIVESTOCK SHOW

Some 750 4-H members from all parts of Minnesota will vie for nearly \$15,000 in awards at the State 4-H Market Livestock Show on the State Fair Grounds, Sept. 27 - 29.

More than \$10,000 of that amount has been pledged by the business community to augment support given the show by the Minnesota Livestock Breeders' Association. The awards will be given in the form of cash premiums to grand champions, champions blue and red ribbon winners in the live show and to grand champions and blue ribbon winners in the carcass contest.

The Minnesota Livestock Breeders' Association is sponsor of the three-day event in cooperation with the University of Minnesota's Agricultural Extension Service. The Market Show replaces the Junior Livestock Show held in South St. Paul for the past 46 years.

Grand championship awards of \$300 will be given in the beef class and \$200 for barrows and lambs in the live show and the carcass contest. Beef breed champions will receive \$100 awards, hog and sheep breed champions \$50.

Opening event of the show will be the banquet for 4-H'ers Monday evening given by the St. Paul Area Chamber of Commerce in the 4-H Building on the State Fair Grounds.

Judging begins at 8:30 a.m. Tuesday. Tuesday afternoon animals will be sold on the open market in South St. Paul by commission companies. There will be no auction of selected animals.

Carcass quality of the animals will be evaluated following slaughter. Evaluation will consider the type of meat that today's consumers demand.

Wednesday morning will be devoted to an educational program on marketing livestock. Final event of the show will be the awards luncheon Wednesday noon in South St. Paul with South St. Paul businessmen acting as hosts.### 65-232-jbn

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
September 22, 1965

Immediate release

#### MINN. 4-H'ERS OBSERVE NATIONAL 4-H WEEK

More than 55,000 Minnesota boys and girls will observe National 4-H Club Week Sept. 25 - Oct. 2.

They are among 2 1/4 million members of 94,800 4-H clubs throughout the 50 states and Puerto Rico who will make a special effort during the week to invite other young people between the ages of 9 and 19 to participate in 4-H club work.

Joining Minnesota club members in the observance will be 12,500 men and women who serve in 2,077 clubs in the state as volunteers working as adult leaders, helping members with their projects and programs.

A special event marking the week in Minnesota will be the 4-H Market Livestock Show Sept. 27 - 29 on the State Fair Grounds.

Exhibits showing 4-H project work and activities will be on display in store windows and other prominent places during National 4-H Week.

"Project work, actually the base of the 4-H educational program, is geared to meet the needs of youth today in both town and county," says Leonard Harkness, state 4-H club leader at the University of Minnesota, commenting on changes that have taken place in the 4-H organization over the years. He points out that 17 percent of the enrollment in Minnesota today is rural nonfarm and 12 percent is urban.

Science is receiving increasing emphasis in nearly all 4-H projects, according to Harkness.

Favorite 4-H project is foods-nutrition, enrolling some 22,000 girls. Next in popularity are the livestock projects, including beef, dairy, sheep, swine, poultry, dog care, pleasure horse and rabbit. Clothing, home improvement-family living, shop, conservation, safety and gardening also have high enrollments. Entomology and photography are among the newer projects.

4-H is a part of the national educational system of Cooperative Extension work shared by the U. S. Department of Agriculture, the counties and the land-grant colleges -- in this state, the University of Minnesota.

# # #

65-231-jbn

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
September 22, 1965

For release at noon  
Thursday, September 23

## UM STUDY SHOWS IMPROVED PASTURES RAISE BEEF PRODUCTION

ROSEMOUNT -- The advantage of improved pastures to increase beef production was emphasized by research results heard here today during the 13th Annual Beef Cattle Grasslands Field Day at the University of Minnesota's Rosemount Agricultural Experiment Station.

Pastures improved with either manure, commercial fertilizer or renovation were superior to control pastures in beef produced per acre, value of beef produced per acre, and number of steer days per acre.

The four-year experiment was conducted by P. M. Burson, professor in the Department of Soil Science; A. R. Schmid, associate professor in the Department of Agronomy and Plant Genetics; and J. C. Meiske, assistant professor in the Department of Animal Husbandry.

The value of beef produced per acre over lime, fertilizer, tillage and seed costs averaged \$58.85 for nitrogen pastures, \$58.10 for renovated pastures, \$54.45 for manure pastures, and \$40.67 for control pastures over the four-year experiment.

Steers averaged gains of 1.68 pounds per day on nitrogen pastures, 1.52 pounds per day on renovated pastures, 1.35 pounds per day on control pastures, and 1.18 pounds per day on manure pastures.

All pastures received three tons per acre of ground limestone in the fall of 1956. Until 1965, all pastures except the control received annual treatments of 200 pounds of 0-20-20. Manured pastures received no 0-20-20 in 1965 because of the very high soil test for phosphate and potash. Eight tons per acre of manure were applied annually in the fall to manured pastures.

Nitrogen pastures were treated with 80 pounds of actual nitrogen annually, plus the treatments made on all improved pastures. Original grass was mainly timothy, brome and scattered areas of bluegrass.

Renovated pastures were cultivated three times in the fall and one time in the spring with a deep tiller. Then renovated pastures were disked and seeded to a per-acre mixture of five pounds of Vernal alfalfa, a pound of alsike clover, six pounds of Lincoln bromegrass and two pounds of Orchard grass.

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65-230-dcf

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
September 27, 1965

Immediate release

## HIGH HONORS GIVEN TO SIX 4-H'ERS

Six young people have been chosen for outstanding leadership qualities and project achievements to represent the 55,000 Minnesota 4-H club members at two national events.

Representing Minnesota at the National 4-H Club Conference next April in Washington, D. C., will be Vernae Lynn Thostenson, 18, Breckenridge; Kathe Kae Krieg, 17, Alberta; Howard Untiedt, 17, Edgerton and Thomas R. Schulz, 16, Sebeka.

Receiving all-expense paid trips to the American Youth Foundation Leadership Training Camp in Michigan will be Cheryl Gingerich, 17, Elbow Lake and Steven Boots, 17, Rushmore. The camp is held next summer at Camp Miniwanca in Shelby, Mich.

Leonard Harkness, state 4-H club leader at the University of Minnesota, announced the awards, considered among the highest honors given to 4-H'ers, during National 4-H Club Week, Sept. 25 - Oct. 2.

Miss Thostenson and Untiedt won purple ribbon 4-H honors at the State Fair in 1963 with demonstrations on flag respect and parliamentary procedure. Miss Krieg, secretary of the Minnesota Association of Future Homemakers of America, received the Stevens County 4-H award for outstanding achievement in home economics projects. Schulz, a senior at Sebeka High School, has throughout his 4-H career been awarded three beef project medals and herdsmanship awards at the Wadena County Fair.

Miss Gingerich won a trip last year to National 4-H Club Congress in Chicago for achievement in the home improvement-family living project. Boots won the Nobles County junior leader award and this year placed in the State 4-H Radio Speaking Contest.

All winners except Schulz are presently enrolled in college.

Sponsor of the National 4-H Conference trip is the Minnesota Bankers' Association.

The Ralston Purina Company, St. Louis, Mo., sponsors the leadership camp.

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65-231-smk

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
September 27, 1965

Immediate release

#### MINN. 4-H GIRL TO REPORT TO THE NATION

A Minnesota 4-H girl is one of <sup>12</sup> young people from throughout the country selected as "4-H Reporters to the Nation."

She is Elizabeth Covington, 17, 3504 Clinton Ave. S., Minneapolis.

The 4-H Reporters to the Nation, chosen each year, are considered typically outstanding among the nation's 2 1/4 million members in town and country, city and suburbia, according to Leonard Harkness, state 4-H club leader at the University of Minnesota. Each 4-H Reporter serves singly and with others to tell the 4-H story in person to the President, to national organizations, leaders in government, business, industry, agriculture and education, as well as to the general public through press, radio and television.

Occasion for giving the report of 4-H club work to the nation is National 4-H Club Week, being observed Sept. 25 through Oct. 2.

Miss Covington will leave for Washington by plane at 10:30 a. m. Tuesday (Sept. 28).

In April the Minneapolis girl was one of five Minnesota young people to represent Minnesota's 55,000 4-H club members at the National 4-H Club Conference in Washington, D. C. As a conference delegate she represented the 12 percent of Minnesota's 4-H'ers living in urban areas. At the conference she was chosen to introduce Secretary of Agriculture, Orville L. Freeman at the general assembly of 4-H delegates and leaders, since she attends the same school--Central High--from which Secretary Freeman was graduated.

A 4-H'er for seven years, she is a charter member of the Trailblazers Club in Minneapolis. She has been a recreation leader and a project leader of her club, working with younger members. Her special interests have been the home economics and junior leadership projects.

Now a senior at Central High School and an honor roll student, she hopes to become a psychiatric social worker. This summer she served as a member of the Teen Board of a Minneapolis department store.

She is the daughter of Mr. and Mrs. Robert C. Covington. ###65- 230 - jbn

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
September 27, 1965

Immediate release

#### NEW GARDEN 'MUMS DEVELOPED BY U FOR '66

Two new garden chrysanthemums, a white and a rose-pink, have been developed by University of Minnesota horticulturists especially for Minnesota and other northern climates where early blooming is essential.

Plants of the two new varieties, named Cream Top and Minnrose, will be available from nurseries in Minnesota and other states for planting next spring.

Cream Top produces fully double, 3-inch white blooms with yellow centers. Mature plants are close to 24 inches high and 24 inches wide when grown in full sun. An excellent flower for cutting, Cream Top starts blooming by mid-September.

Minnrose is a double, rose-pink cushion-type chrysanthemum tinged with gold in the center. It is especially adapted for use as an edging plant in the border. Flowering usually begins the second week of September. A profusion of 1-1/2-inch flowers on rigid stems completely hides the foliage. Mature plants are 12 inches high and 25 inches wide when grown in full sun.

Introduction of Cream Top and Minnrose brings to 47 the number of varieties of garden chrysanthemums developed by University of Minnesota horticulturists for northern climates.

(more)

add 1 --New Chrysanthemums

Horticulturists R. A. Phillips and R. E. Widmer are in charge of University of Minnesota's chrysanthemum breeding project, which was started in 1936 by the late L. E. Longley. The problem of these chrysanthemum breeders has been to develop varieties early enough to bloom before killing frost. At the time Longley started breeding chrysanthemums, the University of Minnesota Agricultural Experiment Station was one of the few state experiment stations working with the development of garden 'mums .

The white Glacier and the aster-purple Chippewa, introduced by Longley, are still among the well liked Minnesota chrysanthemum varieties. Popular with many gardeners are the low-growing Minn-Autumn, Minnbronze, Minnpink and Harvest Bronze. Golden Fantasy, sometimes described as a carnation-type, is one of the most unusual of the 'mums developed by the University horticulturists. The apricot-bronze Zonta and the bright yellow Goldstrike, introduced for the spring of 1964, have special appeal because of their high-mound, bushy, compact plants. A bronze-orange double 'mum , Superior, was introduced for planting this past spring.

Miscellaneous Report 64, Cream Top and Minnrose - New Chrysanthemums for 1966, gives more information on the new introductions and contains a listing of the most popular University of Minnesota chrysanthemum varieties. Copies are available free of charge from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101.

# # #

65-232-jbn

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 27, 1965

To all counties  
ATT: HOME AGENTS  
Immediate release

**BUY CHILDREN'S  
CLOTHES TO FIT**

Buy clothes that fit your child now -- not garments that are so large he has to grow into them.

Extension clothing specialists at the University of Minnesota say it's far wiser to buy fewer clothes that actually fit and which can be washed frequently than many garments that are too large.

At the same time, however, the clothing specialists suggest that mothers look for features that will adapt to a growing child. This year's fall and winter fashions fortunately have a number of built-in growth features. They include:

- . A-line styling with easy fit and no waistline.
- . Two-piece garments.
- . Raglan sleeves which will fit even as a child broadens.
- . Extra-large hems.
- . Expandable suspenders on boys' trousers.

Whenever possible, take a child with you to shop so he can try on the clothes you plan to buy. If that is not possible, be sure to have his height, weight, chest and waist measurements with you. More and more manufacturers are using the apparel standards from the U. S. Department of Commerce in sizing children's garments. So look for these measurements on the label. The child's age has little bearing on the size of the garment.

For satisfaction with the garments you buy, be sure to check the label for information on shrinkage, colorfastness and laundry care.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 27, 1965

To all counties

Immediate Release

PARTICLE SIZE  
IN FORAGE RATIONS  
FOR DAIRY COWS

Smaller particle size in forage rations for dairy cows is creating considerable interest among farmers.

D. E. Otterby, dairy husbandry researcher at the University of Minnesota, says forage rations are more easily handled by automation if forage is ground to reduce particle size and then pelleted.

Grinding and pelleting of forage also reduces dust and prevents the animal from eating only the more desirable portions of the forage.

Automation of the feeding process means less work for the dairy farmer, but what happens in the cow's digestive system when pelleted forage is eaten? The reduced size of ground and pelleted forage rations means the forage may pass through the animal's digestive tract at a faster rate. Digestion time is reduced and digestibility is decreased to some degree.

Rumen fermentation is sometimes changed by reducing the particle size in forage rations. Rumination--the time an animal spends chewing a cud--is decreased because the smaller particles cause no abrasive action against the rumen wall to bring about regurgitation and further chewing. Reduced particle size in forage rations may also cause dairy cows to eat more forage.

add 1 -- Particle Size in Forage Rations

Some studies have found that grinding and pelleting of forage rations for dairy cows has increased milk production, while other studies have concluded milk production does not increase.

Feeding pelleted forage rations sometimes reduces the butterfat percentage in milk. This tendency may be offset, however, by feeding six to 10 pounds of long roughage with the pelleted forage.

Feeding dairy cows some sodium bicarbonate with the pelleted forage rations also tends to prevent part of the reduction in butterfat percentage. Further research at several research stations is being conducted to study the effects of sodium bicarbonate supplements in preventing butterfat reduction when dairy cows are fed pelleted forage rations.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 27, 1965

To all counties

Immediate Release

IN BRIEF.....

Mushrooms: Often appearing in lawns after a rain, mushrooms are the fruiting bodies of fungi growing on organic matter in the soil, or on buried wood such as tree roots. Herb Johnson, extension plant pathologist at the University of Minnesota, says mushrooms growing in the soil can often be controlled with chemical treatment. Those growing on wood will usually persist until the wood is removed or decomposed. Ask your county agent for Extension Folder 165, "The Home Lawn,"

\* \* \* \*

Improved Pastures: Pastures improved with either manure, commercial fertilizer, or renovation were superior to control pastures in beef produced per acre, value of beef produced per acre, and number of steer days per acre, according to University of Minnesota researchers. Value of beef produced per acre over lime, fertilizer, tillage and seed costs averaged \$58.85 for nitrogen pastures, \$58.10 for renovated pastures, \$54.45 for manure pastures, and \$40.67 for control pastures in the four-year experiment.

\* \* \* \*

Timber Volume: Minnesota's timber volume increased nearly 34 million cords between 1953 and 1962 to total more than 124 million cords. Paul DeBald, forester at Lake States Forest Experiment Station, says trees reaching merchantable size in northern Minnesota account for much of the 37 percent increase.

\* \* \* \*

Liming Soils: A booklet on liming acid soils, Extension Folder 210, "Liming Minnesota Soils," is recommended by Lowell Hanson, extension soils specialist at the University of Minnesota. Get a copy from your county agent or write Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 27, 1965

To all counties

Immediate Release

STEERS PRODUCE  
GOOD GAINS WITH  
ALL-HAYLAGE RATION

Minnesota cattle feeders can expect steers to show good gains on all-haylage ration, according to research conducted at the University of Minnesota.

In the first-year phase of a four-year experiment, steers fed alfalfa-brome haylage from an airtight silo produced higher gains per day than haylage fed from a conventional concrete stave silo. Steers fed a grubicide gained slightly faster than those fed no grubicide, but zinc supplements did not influence feedlot performance.

Cattle fed haylage from the airtight silo gained significantly faster, consumed more haylage dry matter and required less haylage dry matter per 100 pounds of gain than those fed from the concrete stave silo. Haylage from the airtight silo produced 1.86 pounds per day gain, compared with 1.69 pounds per day gain from haylage stored in the concrete stave silo.

Researchers point out the higher gains were probably due to increased dry matter intakes for cattle fed from the airtight silo, since haylage from both silos supplied adequate nutrients.

## add 1--Gains On All-Haylage Ration

No spoilage was noted in the airtight silo and only 1,170 pounds, or about 1.4 percent of material ensiled was discarded as spoiled material from the concrete stave silo. Haylage from the airtight silo had slightly more protein and less fiber, though nutrient content of haylage for both silos was similar when ensiled.

Researchers say ensiling alfalfa as haylage is an excellent method of storing forage, because cattle consume more dry matter and nutrients than when silage is fed. Leaf loss with haylage is lower during harvesting. There is less risk of rain damage, thanks to shorter drying time. Forage put up as haylage should contain 45-55 percent moisture.

Interest in feeding zinc has increased since Purdue researchers reported, that zinc additions improved gains for cattle fed a high concentrate ration. Grains are normally lower in zinc than roughages, but University of Minnesota researchers wanted to investigate the effects of adding zinc to high roughage rations.

For the first 14 days of the experiment, 100 mg. of zinc was fed per head daily, but results indicate feeding zinc had no effect on gains or feed consumption.

Feeding a grubicide for the first two weeks of the experiment appeared to improve gains, with the steers receiving the grubicide gaining 1.82 pounds per day, while those receiving no grubicide gained 1.74 pounds per day. Researchers point out that the differences are not significant and that the lower number of grubs in treated steers may explain the faster growth rate.

The experiment was conducted by R. D. Goodrich, assistant professor; J. C. Meiske, assistant professor; R. M. Jordan, professor; A. L. Harvey, professor; and O. E. Kolari, associate professor, of the Department of Animal Husbandry; and G. C. Marten, assistant professor in the Department of Agronomy and Plant Genetics.

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
September 29, 1965

Immediate release

## COUNTIES HONORED AT MARKET LIVESTOCK SHOW

Special honors were awarded to three county delegations of 4-H'ers--from Lyon, Blue Earth and Pope counties -- at a luncheon hosted by South St. Paul businessmen in the Livestock Arena in South St. Paul at the close of the 4-H Market Livestock Show Wednesday (Sept. 29).

Some 750 4-H members from all parts of Minnesota showed livestock at the show, held for the first time on the State Fair Grounds, Sept. 27-29.

4-H members from Lyon County won the Premier County Livestock Award for outstanding livestock exhibits. The award, a 3-1/2 foot trophy donated by the South St. Paul Rotary Club, is based on points earned by 4-H exhibitors in herdsmanship, showmanship and individual livestock placings, plus a handicap score designed to compensate counties entering fewer than average numbers of livestock.

Blue Earth County 4-H'ers received the Tellier trophy for having the best exhibit of shorthorn cattle. The trophy is given by the 4-H Market Livestock Show.

Pope County 4-H'ers won herdsmanship honors and a trophy from the Central Livestock Association. The trophy goes to the county doing the most thorough job of keeping animals, stable and equipment in the cleanest, most orderly fashion during the show. Second place went to Houston County and third place to Freeborn County. Blue ribbon counties in herdsmanship were Norman, Steele, Renville, Mower, Lyon, Clay, Dodge, Dakota and Fillmore.

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65-233-jbn

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
September 29, 1965

Immediate release

#### CLAY COUNTY YOUTH NAMED 4-H LIVESTOCK ACHIEVEMENT WINNER

Wayne Lepper, 18, Hawley, is this year's state winner of the 4-H livestock achievement award of a \$100 U. S. savings bond.

The award was presented at a luncheon in South St. Paul Wednesday noon (Sept. 29), marking the close of the first 4-H Market Livestock Show.

Second place achievement winner was Roger Lind, 19, Balaton, who received a \$50 savings bond. Third place and a \$25 bond went to Nancy Nelson, 19, Albert Lea. Donor of the awards was the St. Paul Union Stockyards Company.

The livestock achievement awards are based on the 4-H'ers' overall excellence in 4-H livestock projects, their knowledge of animal production and application of management principles and approved techniques in the care and feeding of livestock.

In his 10 years in club work, Lepper has received almost every award given in the 4-H livestock projects. At this year's Clay County Fair he showed the grand champion Chester White barrow, took reserve championship for his poultry exhibit, received the hog showmanship award and was named grand over-all livestock showman. He was also selected as the winner in the Clay County livestock achievement contest.

The Clay County youth's livestock projects have grown extensively since he enrolled in 4-H. He now has 87 animals in the swine project. He owns 11 head of Holstein cattle and raises about 150 market cockerels. He raises feed for his livestock on 160 acres of land which he rents.

Three different times Lepper has been president of his local club and he has been a junior leader for four years. He has also served as treasurer of the Clay County 4-H Council.

(more)

add 1 --achievement, other winners in 4-H market livestock show

Lind has been Livestock project leader for his club for several years and has served as 4-H beef superintendent at the Lyon County Fair the last two years. In eight years in the beef project he has raised 15 steers. In his eight years in the 4-H sheep project he has raised 52 lambs and cared for 10 ewes. He now owns 23 purebred Southdowns and a purebred Shropshire. He has been on the Lyon County livestock judging team and last year was top over-all freshman livestock judge at South Dakota State University, where he is enrolled in agricultural education.

Miss Nelson enrolled in the 4-H sheep project at the age of 9 with a purebred ewe lamb. Now she has a flock of 30 purebred Southdowns. She has raised rabbits and poultry and has exhibited her beef heifers for five years and steers for seven years at county fairs. In 1964 she received the Master Livestock Award in Freeborn County. Both Lind and Miss Nelson have won the Minnesota 4-H Key Award.

Other winners in the 4-H Market Livestock Show, held on the State Fair Grounds Sept. 27-29, were:

Grand champion beef - Ronald Jones, 18, Lake Crystal; reserve champion beef, Diane Mortensen, 15, Blooming Prairie; champion beef showman, Robert Smith, 17, Borup; reserve champion beef showman, Tony Staloch, Minnesota Lake.

Grand champion lamb, Carole Groh, 17, Waterville; reserve champion, David Miller, 13, Austin (Freeborn Co.); champion sheep showman, Janis Wichmann, 18, Balaton; reserve champion sheep showman, Reid Merrill, Pipestone.

Grand champion hog, Bill Bryson, 13, Alden; reserve champion hog, Mark Butman, Pipestone; champion swine showman, Dale Miller, 16, Morristown; reserve champion swine showman, Larry Holmberg, Pennock.

Some 750 4-H'ers took part in this year's 4-H Market Livestock Show on the State Fair Grounds Sept. 27-29.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul 55101 -- Tel. 647-3205  
October 1, 1965

County Agent: This has been sent  
to daily newspapers and radio  
stations.

Immediate release

## HANDLING FROST-KILLED CORN AND SOYBEANS

The freeze of September 25 killed much of Minnesota's corn and soybeans. And farmers are now faced with the problem of how to handle the crops to get the most value.

James Justin and Harley Otto, extension agronomists at the University of Minnesota, say crop maturity should be the primary factor in deciding how to handle these crops.

Corn which was fully dented and losing moisture at the time of freeze can still be harvested as grain when the moisture content is low enough for safe storage. At 35 percent grain moisture, corn is normally fully dented and kernels are hard all the way to the base.

Corn containing more than 35 percent grain moisture probably cannot mature now and will have to be salvaged. If this corn is picked, artificial drying will be needed or the corn should be fed immediately.

Livestock farmers can ensile the grain for future feeding, but silos should be airtight to prevent excessive losses. Ear corn can be ensiled at 30-35 percent moisture. When the whole ear contains about 35 percent moisture, the grain has about 30 percent moisture. Justin and Otto recommend that ear corn be chopped into short lengths and then coarsely ground before ensiling.

Shelled corn can be ensiled at about 30 percent moisture. With this moisture content, the grain should be coarse ground before ensiling. Slightly higher moisture content is desirable if the grain is not ground.

(more)

add 1 -- frost-killed corn and soybeans

Rains before and after the freeze increased the moisture content of corn. But whole plant corn silage can be made after excess moisture is lost. If moisture content is in excess of 70 percent when ensiled, seepage will probably occur and result in poor quality silage.

For more information on corn silage, ask your county agent for Agronomy Fact Sheet No. 9, titled "Corn Silage," or write to the Bulletin Room, University of Minnesota, St. Paul, Minn. 55101.

Decisions about harvesting soybeans should also be based on the crop's maturity when frozen, say Justin and Otto. If leaves had started to fall from the soybeans at time of freeze, the crop was probably mature enough to be harvested for grain. Combine these soybeans when the moisture level of the beans is about 35 percent.

The beans may be immature on soybean plants which were still green when frozen. But if beans were formed and still slightly green when frozen, the crop may be worth more as grain than as silage, even though the market value will be lower than for fully mature beans.

Soybean plants which were green when the freeze hit can be ensiled. With moisture content more than 70 percent, the plants should be allowed to dry before ensiling. Ground grain, molasses or sodium metabisulfite can be added to the soybean silage as preservatives.

Justin and Otto advise farmers to be certain all chemicals used for weed and insect control have a label clearance before the soybean or whole plant corn silage is fed to livestock.

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65-235-dcf

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul 55101 -- Tel. 647-3205  
October 1, 1965

SPECIAL

Immediate release

## UNIVERSITY HOME ECONOMIST DIES

Mary L. Muller, associate professor and extension specialist in home improvement at the University of Minnesota, died of cancer Friday morning (Oct. 1) at the age of 47.

Miss Muller came to Minnesota in December, 1959 from a position as home demonstration agent in St. Joseph County, Mich., where she had served since 1956. She had been a home agent in various counties in Michigan since 1944 and had taught home economics for three years previous to that time.

In 1958 Miss Muller received the Florence Hall award from the National Home Demonstration Agents' Association for her work with families in financial planning.

She was a member of Epsilon Sigma Phi, honorary fraternity of the Agricultural Extension Service, and of the Minnesota and National Home Economics Associations. She was president of the North Central Chapter of the Electrical Women's Round Table.

She held a B.S. from Michigan State University and an M.S. from the University of Illinois, with a major in housing.

She was born in Grand Rapids, Mich., April 21, 1918.

Survivors include her mother, Mrs. Elizabeth Vander Hyde, Coopersville, Mich., and two brothers, Jack Muller, Pittsburgh, Penn., and Stillman Muller, Coopersville, Mich.

The funeral will be held in Coopersville, Mich., but final arrangements are pending.

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65-jbn

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul 55101 -- Tel. 647-3205  
October 1, 1965

Immediate release

## HANDLING FROST-KILLED CORN AND SOYBEANS

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James Justin and Harley Otto, extension agronomists at the University of Minnesota, say crop maturity should be the primary factor in deciding how to handle these crops.

Corn which was fully dented and losing moisture at the time of freeze can still be harvested as grain when the moisture content is low enough for safe storage. At 35 percent grain moisture, corn is normally fully dented and kernels are hard all the way to the base.

Corn containing more than 35 percent grain moisture probably cannot mature now and will have to be salvaged. If this corn is picked, artificial drying will be needed or the corn should be fed immediately.

Livestock farmers can ensile the grain for future feeding, but silos should be airtight to prevent excessive losses. Ear corn can be ensiled at 30-35 percent moisture. When the whole ear contains about 35 percent moisture, the grain has about 30 percent moisture. Justin and Otto recommend that ear corn be chopped into short lengths and then coarsely ground before ensiling.

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(more)

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Justin and Otto advise farmers to be certain all chemicals used for weed and insect control have a label clearance before the soybean or whole plant corn silage is fed to livestock.

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65-235-dcf

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 4, 1965

To all counties  
4-H NEWS  
Immediate release

HORTICULTURE-  
4-H PROGRAM  
EXPANDED

4-H'ers will now have the opportunity to explore more widely in the field of horticulture, announces Leonard Harkness, state 4-H club leader at the University of Minnesota.

The expanded horticulture project is oriented towards the 4-H'er interested in gaining a keen insight into nature, Harkness adds. The member has an opportunity to develop a better understanding of the basic principles of science relating to plant growth.

The horticulture program is divided into six projects: lawn and landscape design, indoor gardening, flower gardening, vegetable gardening, fruit and potato. New publications have been released for the first four of these projects. Records and publications for the fruit and potato projects will be the same as those used last year.

Purpose of the lawn and landscape design project is to help 4-H'ers learn more about trees, how they grow, how to maintain the lawn, and how to make a simple landscape design. Members will obtain information on taking a soil sample, controlling weeds and insects, the planting and care of trees, planning a landscape and how to create a pleasant setting for the garden.

The indoor gardening project will teach 4-H'ers how to grow plants indoors. Members will be instructed in the care of house plants, indoor bulbs, flower arranging, creating a dish garden and growing a terrarium.

The flower garden project gives 4-H'ers information about the planting and care of flowers for the home. Members will learn how to grow annuals and perennials, how to divide perennials, grow perennials from seedlings and arrange flowers in the border.

The vegetable gardening project teaches members how to plan, plant and care for a vegetable garden.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 4, 1965

To all counties  
4-H NEWS  
Immediate release

#### 4-H FILLERS

#### Minnesota Has Reporter to the Nation

A Minnesota 4-H girl, Elizabeth Covington, Minneapolis, is one of 12 young people from throughout the country selected as "4-H Reporters to the Nation." The "4-H Reporters to the Nation," chosen each year are considered typically outstanding among the nation's members in town and country, city and suburbia. During National 4-H Week they told the 4-H story to the President, to national organizations, leaders in government, business and industry, agriculture and education, as well as to the general public through press, radio and television.

Elizabeth, 17, is a charter member of the Trailblazers 4-H Club in Minneapolis. She is a senior at Central High School in Minneapolis -- the school from which Secretary of Agriculture Freeman graduated -- and an honor roll student. In April she was a delegate to the National 4-H Club Conference in Washington, representing the 12 percent of Minnesota's 4-H'ers in urban areas.

\* \* \* \*

The photography project is teaching about 4,000 Minnesota 4-H boys and girls how to operate a camera and the techniques for taking pictures in either natural or flash lighting.

\* \* \* \*

Within the last year in Minnesota, the enrollment in the 4-H dog project has doubled and the horse project has increased 25 percent.

\* \* \* \*

Anything mechanical has a special appeal to many boys, as is indicated by the number of 4-H'ers enrolled in the mechanical projects--now about 10,000 of them. The mechanical projects include automotive, electric, shop and tractor.

Automotive care and safety project members study traffic safety, automobile selection, operation and upkeep and learn about career opportunities in the field of automotive safety. Members in the electric project learn the use of electricity, how it works and the making of simple electrical devices. Shop project members make articles out of wood, metal, concrete or rope. 4-H'ers enrolled in the tractor project study the operation of the tractor and keep a record of cost, servicing, and repairs.

\* \* \* \*

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 4, 1965

To all counties  
ATT: HOME AGENTS  
Immediate release

BUY EXACT SIZE  
IN PERMANENT  
PRESS SLACKS

Buying permanent press wash slacks for the boys in the family for school? About 60 percent of the boys' wash slacks are now of the permanent press variety. These slacks are available in twills, corduroys, gabardines, poplins and other fabrics.

When you buy permanent press slacks, be sure to select the exact size to fit, extension clothing specialists at the University of Minnesota suggest. The only alterations practical on permanent or durable press boys' slacks are shortening the pants legs and taking the slacks in at the waist. Other alterations are possible but if they are made, stitch marks, a crease or a lighter color line will show, detracting from the appearance of your slacks.

Permanent press is a process "baked" into the complete slacks, not merely into the crease. Wool slacks have been on the market for several years with the permanent press in the crease only.

Because manufacturers are experimenting with durable press on many fabrics, the smart consumer needs to be particularly careful in choosing wash slacks. Always read the label carefully so you know what type of wear to expect and what kind of care to give them, the specialists caution.

Although permanent press slacks have many advantages, some of the problems have included an undesirable odor, a whitening at the waistband, creases showing wear, some fading and streaking.

As is the case when any new product comes on the market, consumers may have to buy several different brands before they find one that is altogether satisfactory, the clothing specialists say.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 4, 1965

To all counties  
Immediate release

STACK SILAGE  
REDUCES CORN  
STORAGE PROBLEMS

Above average rains during September followed by the hard freeze of September 25 increased the probability of soft corn in much of Minnesota. Farmers trying to find storage space for more silage than expected may consider making use of stack silage this year.

Storage losses will be heavier with stack silage than with silage put in trenches or upright silos, according to James Justin, extension agronomist at the University of Minnesota. But where adequate structures are unavailable for storage, stacks can be useful for salvaging a crop. With careful construction and thorough packing, much storage loss can be prevented.

Pick a site with good drainage. Stacks can be built without site preparation, however, working up two- or three-foot soil ridges along the length of the stack site will make packing easier and more adequate.

Spreading the silage from the middle toward both ends produces a stack shape better suited for driving over with equipment. As the silage is spread, pack continuously with a truck or tractor to force out air and aid preservation. Use a shovel or tractor loader to scrape off edges which cannot be packed well. Pile this silage on top of the stack, then pack and round the stack top for better water shedding.

add 1 -- stack silage

After the silage is stacked and thoroughly packed, seal out air. Plastic sheets will serve well. Even if plastic sheets are used only one year, the improved preservation of silage will probably pay for the added expense, says Justin. Weighting the edges and tops of the plastic sheets with soil to prevent air seepage is worth the extra effort.

Building paper or heavy sisal paper can be used instead of plastic sheets. Using a layer of sawdust soaked with water or packing soil over the stack also cuts down air seepage.

Justin says sawdust or soil can be used on top of plastic sheets or without plastic, but recommends using plastic sheets between the silage and layer of soil or sawdust. Any material which adds weight and stops air seepage is useful to cover the silage stack.

Making and using stack silage calls for the same considerations as with any silage: distribute silage evenly, pack well, keep out air, and once the silo is open, feed enough each day in warm weather to prevent spoilage.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 4, 1965

To all counties

Immediate release

INSECTS CAN BE  
SERIOUS THREAT  
TO STORED GRAIN

The problem of insects in stored grain is becoming increasingly serious as more grain--some of it in poor condition--is put into storage. Stored grain insects can contaminate and cause direct loss of grain.

John Lofgren, extension entomologist at the University of Minnesota, stresses the importance of insect contamination saying, present food grain regulation prohibit sale of contaminated or unsanitary grain.

Insect infestation in a grain bin usually indicates a combination of factors: dirty or damaged grain, moisture content above safe levels, and excess grain temperature. Insects attacking stored grain need these conditions to survive and reproduce.

Stored grain insects must have temperatures of at least 60° F. to reproduce. Primary infestors, like the granary weevil, attack sound, whole grain if moisture content is more than 11 percent and grain temperature is above 80° F. Weevil infestation may occur at lower temperatures if grain moisture content is higher.

-more-

add 1 -- insects can be serious threat

Secondary pests, like the saw-toothed grain beetle, normally will not attack whole kernels except at high temperature and high moisture levels. But if grain is cracked and broken or contains much chaff and dust, the secondary pests will breed if temperature is above 70° F., regardless of moisture content.

Lofgren says Minnesota grain does not become infested in the field. Some bran bugs may be found in the field, but will not survive in the bin if grain is in good storage condition. Grain becomes infested when put in a bin which has held infested grain or which is near infested feed or grain.

If more than five of the secondary "bran bugs" or any of the primary infesting weevils are found per quart sample of grain, control measures should begin.

Turning the grain or moving it slowly from one bin to another on a cold day will often cool the grain enough to halt insect activity temporarily. Proper fumigation is the only way to stop stored grain infestation, says Lofgren.

Because grain fumigants vaporize into heavier than air gases, all cracks and holes in the bin should be sealed to prevent gas leakage. Grain in the bin should be leveled to provide uniform penetration of fumigants. To insure complete vaporization of fumigants, grain temperature should be at least 65° F. Also, fumigate on a calm day.

Apply liquid fumigants evenly over the grain surface with a sprayer forming a coarse-droplet spray or solid stream. Use a reliable commercial fumigant at the recommended rate and follow special precautions. Because fumigants are toxic, never fumigate grain alone or breathe fumigant vapors. Wear a gas mask with a fresh cannister approved for the particular fumigant being used.

After spraying, seal the bin for four or five days. If grain is to be fed to livestock four or five days after fumigation, it should be stirred or turned to speed evaporation of the fumigant.

For more information on preventing infestation in stored grain, ask your county agent for Entomology Fact Sheet No. 9, entitled "Insects in Stored Grain," or write to the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

# # # #

Department of Information  
and Agricultural Journalism  
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St. Paul, Minnesota 55101  
October 4, 1965

To all counties  
Immediate release

IN BRIEF...

Rat migration: Rat control should be stepped up in the fall, because rats tend to migrate more during fall months. Stressing the importance of control, Robert Berg, extension poultry specialist at the University of Minnesota, says three rats can eat as much feed as one hen and contaminate 10 times as much feed as they eat. More information is available in Extension Folder 31, "Rat Control," from your county agent or the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

\* \* \* \*

Sodding Lawns: Sodding of home lawns can continue until the ground begins to freeze this fall, according to Gus Hard, extension horticulturist at the University of Minnesota. But sod should not be applied over frozen ground. Also, be sure the sod is moist when the soil freezes this fall.

\* \* \* \*

Dutch Elm Disease: Since 1961, more than 100 cases of Dutch Elm disease have been identified in communities in the southern half of Minnesota. Herb Johnson, extension plant pathologist at the University of Minnesota, recommends two publications on the disease and its control. Extension Folder 211, "The Dutch Elm Disease," and Special Report 14, "Dutch Elm Disease and Community Decisions," are available from your county agent or the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

\* \* \* \*

Harvesting carrots: Carrots will stand several frosts without injury, O. C. Turnquist, extension horticulturist at the University of Minnesota, says carrots will keep better in winter storage if harvested sometime in October.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
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Immediate release

#### 4-H WINNERS NAMED IN ACHIEVEMENT, LEADERSHIP, CITIZENSHIP

Records of achievement, leadership and citizenship have won state 4-H awards for six Minnesota young people, Leonard Harkness, state 4-H club leader at the University of Minnesota, has announced.

Sandra Eisinger, 19, Long Lake, and Donald Erickson, 18, Buffalo, have been named state winners of trips to the National 4-H Club Congress in Chicago in late November for their over-all achievements in a variety of 4-H projects.

State 4-H winners in leadership are Kathy Lohmann, 19, Goodhue, and Jerome Smith, 17, West Concord. They, too, will receive trips to Club Congress.

Also receiving a trip to the Chicago event for outstanding leadership is Mrs. Maurice Urevig, Cannon Falls, who has been an adult leader of the Spring Garden Jolly Juniors 4-H Club in Goodhue County for 10 years. She has been active in promoting interest among members in demonstrating and exhibiting at the county fair, WCCO Radio awards the adult leader trip each year.

Mary Jane Fribyl, 19, Maple Lake, and Ed Brophy, 18, Brainerd, will receive certificates as state winners in citizenship.

A student at St. Cloud State College with plans for a nursing career, Miss Eisinger has been a 4-H member for 10 years. During that time she has held all the offices in her 4-H club, has been secretary-treasurer of the Hennepin County 4-H Federation, and as a junior leader has been active in helping younger members. She has been a purple ribbon foods demonstrator and a blue ribbon home yard improvement demonstrator at the State Fair and has received county medals in home beautification, safety and dress revue. One of her latest county honors was the Danforth award for leadership. She holds the 4-H Key Award.

Erickson is a sophomore at the University of Minnesota where he is taking agricultural engineering. He was one of two Minnesota delegates to the American Youth Foundation Camp in Miniwanca, Mich., in 1964, has been a recipient of the J. R. Watkins scholarship, the Danforth leadership award, the Minnesota 4-H Key Award and was named outstanding boy junior leader in Wright County in 1962. He had one of the purple ribbon 4-H garden exhibits at the Minnesota State Fair this year. He has been a county delegate to the 4-H Health and Conservation camps, has been president of his 4-H club as well as of the 4-H county federation.

(more)

add 1 --4-H winners in achievement, leadership, citizenship

A sophomore in the University of Minnesota's School of Home Economics, Miss Lohmann plans to be a home agent. She has been a junior leader five of the 10 years in 4-H, much of the time serving as a clothing project leader but also helping to plan the year's programs. She has won Goodhue County junior leadership awards and the Minnesota Key Award. For two years she served as secretary of the district 4-H Leader Federation. Last year she was a 4-H delegate in the Minnesota-Maryland exchange program.

As a junior leader for the past four years, Smith has encouraged and helped members prepare demonstrations, has given demonstration workshops, and for the past year has had the major responsibility of planning recreation for club meetings. He has been president of his 4-H club and president of the Dodge County 4-H Federation. In 1964 he was named outstanding 4-H boy of Dodge County. His awards include a purple ribbon for his dairy demonstration at the State Fair, county championships in horticulture and in demonstrations. He also received the God-Home-Country 4-H award. He is a freshman this year at St. John's University.

Miss Pribyl was selected as one of two Minnesota 4-H delegates to the American Youth Foundation Camp, Camp Miniwanca, Mich., last summer. She has been president of her 4-H club, president of the Wright County 4-H Federation, and song and project leader of her club. Four different years she was named top demonstrator in Wright County. In 1963 she was selected to the State 4-H Dress Revue Court of Honor. In the county she has won awards in clothing, food preparation, poultry and last year won a \$100 scholarship for bread baking as a part of the foods and nutrition project. She is a sophomore in home economics at the University of Minnesota.

Brophy, a freshman at Brainerd Junior College, was one of five young people to represent Minnesota's 55,000 club members at the National 4-H Club Conference in Washington, D. C., last April. This past year he was president of the Crow Wing County 4-H Federation and served on the continuation committee for the State 4-H Junior Leadership Conference. During his five years as a 4-H leader, he has helped younger 4-H'ers with their projects, demonstrations and exhibits and has been a counselor at district 4-H camp. He has won Crow Wing County awards in junior leadership, electrical, shop, swine, horse and rabbit projects and received the 4-H Key Award. He plans to teach industrial arts and mathematics.

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65-236-jbn

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
October 5, 1965

Immediate release

#### ANNUAL FARM INCOME TAX SHORT COURSE SET FOR OCTOBER 18-20

The 23rd annual Farm Income Tax Short Course is scheduled for October 18, 19 and 20 at the Lowry Hotel in St. Paul, according to Paul Hasbargen, extension agricultural economist and course coordinator at the University of Minnesota.

The short course is open to persons who assist in preparing tax returns. Emphasis is on farm income tax returns.

More time will be devoted to workshop sessions this year. The last two and a half days of the course will deal with specific problems encountered in preparing tax returns.

Topics to be covered include income averaging, casualty losses, sick pay exclusion, contributions, sale or transfer of property, investment credit, standard deductions and government bond interest.

The general session covering the first half day of the course will feature Sherwood O. Berg, dean of the University of Minnesota's Institute of Agriculture; Rolland F. Hatfield, commissioner of taxation for Minnesota; and George O. Lethert, St. Paul district director for the Internal Revenue Service.

Representatives from the Income Tax Division of Minnesota and St. Paul District of the Internal Revenue Service will be available throughout the course to answer specific tax questions.

The short course is sponsored by the University's Agricultural Extension Service and Department of Agricultural Economics.

For more information about the course and enrollment material, write the Department of Agricultural Short Courses, University of Minnesota, St. Paul, Minn. 55101.

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65-237-dcf

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
October 7, 1965

Immediate release

#### CONSERVATION TRIP AWARDED TO MINN. 4-H'ERS

Eight 4-H'ers active in conservation work have been selected to tour areas of Minnesota and Wisconsin to view conservation practices, Oct. 18-19, Wayne Carlson, assistant state 4-H club leader at the University of Minnesota, has announced.

4-H winners are Mary Ann Heublein, Lewiston; Martha Nunn, Champlin; Jim Lewis, Jr., Sherman, S. D. (Rock County); Jim Rath, Buffalo Lake; JoAnne Micensky, Hibbing; Cathy Louwagie, Cottonwood; Charles Saari, Embarrass; and Roy Nord, Bemidji.

The tour includes a visit to the Black Dog Steam Generating Plant near Minneapolis and a tour of the Lake States Forest Experiment Station in La Crosse, Wis. The young people will observe conservation practices in orchards, sites utilizing terraces and detention dams in Winona County.

The tour is sponsored by Northern States Power Company.

Six of the eight 4-H'ers have been delegates to the State 4-H Conservation Camp in Itasca State Park for outstanding records in conservation.

During their years enrolled in conservation, the 4-H'ers have participated in such activities as planning wildlife food plots, developing livestock conservation on the farm, working for wildlife protection, building bird houses and feeders, taking soil samples, trapping gophers, participating in the National Audubon Christmas bird census, demonstrating and exhibiting conservation practices, assisting with club hikes and field trips and planting and transplanting tree seedlings.

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65-239-smk

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
October 7, 1965

Immediate release

#### FILLERS FOR YOUR WOMEN'S PAGES

Washing rice once before cooking can cause a 25 percent loss of the thiamine. Washing rice before cooking is an unnecessary step because today's packaged rice has already been cleaned, say extension nutritionists at the University of Minnesota.

\* \* \*

October marketings of both broiler-fryers and turkey are expected to be greater than last year.

\* \* \*

Buy clothes to fit the growing child but look for features that adapt to growth such as A-line styling with easy fit and no waistline, two-piece garments, raglan sleeves, extra-large hems on dresses and expandable suspenders on boys' trousers, suggest University of Minnesota extension clothing specialists.

\* \* \*

Fresh green cabbage is rich in vitamin C. In general, freshly harvested vegetables have more vitamins than those held in storage.

\* \* \*

Cooked vegetables have only about three-fourths as much vitamin C after one day in the refrigerator as when freshly cooked; after two or three days in the refrigerator cooked vegetables have only a third to a half as much vitamin C as when freshly prepared.

\* \* \*

For a glamorous spring garden, plant some bulbs this month. Daffodils and tulips can be put in anytime this month until freeze-up.

\* \* \*

It's sound planning to have a fourth of the day's calories at breakfast and to include a protein food like eggs, meat or milk, according to extension nutritionists at the University of Minnesota.

\* \* \*

Last year most adults in the U.S. ate from a fourth to half their weight in food fats and oils--more than 47 pounds per person. Biggest increase was in consumption of cooking and salad oils, reports the U.S. Department of Agriculture.

# # #

65-240-jbn

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
October 7, 1965

Immediate release

## BROILER-FRYERS AND TURKEY GOOD VALUES

Abundant supplies of chicken and turkey will make poultry especially good buys during October.

October marketings of both broiler-fryers and turkey are expected to be greater than last year. Since poultry prices typically reach their low point of the year during the last three months, consumers can look for frequent specials on turkey and chicken in October, according to Mary Ryan, extension consumer marketing specialist at the University of Minnesota.

If you want an especially good buy on turkey, you'll pay less per pound for the larger turkeys. A 20-pound tom, for example, is cheaper per pound than a 10-pound bird. You will also get more meat in proportion to carcass on the big birds. If you find a good buy, you may want to have a frozen turkey sawed into halves or quarters and freeze the portion you can't use immediately.

Broiler-fryers are frequently offered at special prices, alternating with specials on other meats. If you find broilers on special, you may be able to save as much as 20 to 30 percent, Miss Ryan says. In that case, she suggests putting a few birds into the freezer, being sure to wrap them well first in a good freezer packaging material such as heavy-duty aluminum foil, a saran-type film or a freezer-weight polyethylene bag.

Instead of buying roasting chickens, Miss Ryan suggests that you may be able to save as much as 10 cents a pound by buying whole broiler-fryers of 2 -1/2 pounds or more for stuffing and roasting.

For stewing, get a large broiler-fryer and simmer it to tenderness. The cooking time will be less than for a stewing hen because broiler-fryers are tender young birds. Stewed broiler-fryers are excellent in soups, stews and casseroles, the consumer marketing specialist says.

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65-238-jbn

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 11, 1965

To all counties

ATT: HOME AGENTS

COOK VEGETABLES  
QUICKLY FOR  
MOST FOOD VALUE

Light green cabbage that's still crisp, deep green snap beans, bright orange squash give meals color and flavor that add up to appetite appeal. Many other vegetables now in ample supply add this same sparkle to family meals.

But vegetables make still another contribution. They provide a year-round source of several valuable minerals, particularly calcium and iron, and of the essential vitamins A and C,--that is, if they're cooked properly.

One of the best methods of cooking vegetables to conserve maximum food values is to cook them only until they are tender, in just enough water to prevent scorching, say extension nutritionists at the University of Minnesota. Use a fairly heavy pan with a tight fitting lid so the vegetables can cook quickly in a small amount of water without the steam escaping. Expensive equipment is not necessary for cooking vegetables to conserve their nutrients.

The nutritionists list some other ways of saving food values:

Boiling carrots, potatoes and sweet potatoes in their skins. This method retains more vitamins and minerals than peeling, cutting and then cooking these vegetables. Potatoes boiled whole in their skins retain almost all their original nutrients.

-more-

add 1 - cook vegetables

- . Baking potatoes and sweet potatoes whole in their skins.
- . Panning vegetables like cabbage or summer squash in a covered frying pan with a small amount of fat.
- . Cooking in a pressure saucepan if the cooking period is timed carefully.

For those who like to cook enough vegetables at one time for several meals, the nutritionists warn that they may be saving time but at the expense of lost food value. Cooked vegetables have about three-fourths as much vitamin C after one day in the refrigerator as when freshly cooked, and after two or three days in the refrigerator they have only a third to a half as much vitamin C as when they were freshly prepared.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 11, 1965

To all counties  
4-H NEWS  
Immediate release

WEED CONTROL  
ESSAY CONTEST  
ANNOUNCED

Any youth in \_\_\_\_\_ County between the ages of 12 and 18 is eligible to enter the Weed Control Essay Contest, sponsored by the North Central Weed Control Conference, Wayne Carlson, assistant state 4-H club leader at the University of Minnesota, has announced.

"How We Control Weeds on Our Farm" is this year's topic. Contestants must be part of a family actively engaged in managing and operating a farm.

The essay must not exceed 1,000 words in length and will be judged 75 percent on subject material and 25 percent on method of presentation. The title should be followed closely in writing the essay.

The contest offers an opportunity for 4-H'ers in \_\_\_\_\_ County who have done a good weed control job on their farms to make it known and receive some recognition for their efforts, Carlson said.

November 30 is the deadline for the winning county essays to reach Gerald R. Miller, extension agronomist, Institute of Agriculture, St. Paul, Minnesota 55101.

The state winner will receive an award of \$25. The winner of the high-scoring essay from the several states and Canadian provinces participating will be awarded a scholarship valued at \$300.

Department of Information  
and Agricultural Journalism  
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University of Minnesota  
St. Paul, Minnesota 55101  
October 11, 1965

To all counties

Immediate release

IN BRIEF...

Storing apples: Select only the best apples for storage and place in perforated polyethylene bags. Neil Miles, extension horticulturist at the University of Minnesota, says wrapping fruits individually is unnecessary, but does lengthen storage life. Keep storage temperature between 32° and 38° F. Store in a room with high humidity to prevent moisture loss from the apples.

\* \* \* \*

Woodland plantings: State Division of Forestry nurseries have Norway, white, Ponderosa, Jack and Scotch pine; white, black and Colorado spruce; and white cedar conifer seedlings for sale to woodland owners for spring planting. Hardwoods include silver maple, green ash and caragana, says Bill Miles, extension forester at the University of Minnesota. Seedlings are available at one dollar per hundred trees. Minimum order is 500 trees and delivery will be next April or May. Get applications from county agent, Soil Conservation Service office, local state forestry office or from Division of Forestry, Centennial Building, St. Paul, Minnesota 55101.

\* \* \* \*

Spring bulbs: Spring bulbs can still be planted during October. Gus Hard, extension horticulturist at the University of Minnesota, says bulbs should not be planted on the south side of the house because higher temperatures may induce winter growth. Tulips and daffodils should be planted at least six inches deep and covered with mulch.

\* \* \* \*

Discourage Rodents: To keep rodents from eating bark of orchard trees, use a cylinder of quarter-inch hardware cloth, about six inches in diameter and 18 inches long, around the tree trunk, says Neil Miles, extension horticulturist at the University of Minnesota. Set cylinder about one or two inches into the ground.

# # # #

Department of Information  
and Agricultural Journalism  
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St. Paul, Minnesota 55101  
October 11, 1965

To all counties

Immediate release

IMMATURE CORN  
MAKES GOOD SILAGE  
FOR CATTLE FEED

Minnesota farmers faced with the problem of salvaging corn killed by the September freeze should consider using the immature frosted corn to make silage for feeding beef cattle, says R. E. Jacobs, extension animal husbandman at the University of Minnesota.

Ground ear corn silage produced from high moisture immature ears can be an excellent grain feed for cattle. For best results, the ears should remain in the field until kernel moisture is between 25 to 32 percent. With kernel moisture within this range, cobs will contain about five percent more moisture than the kernels.

Corn growers may want to wait another week or two to determine whether the corn will mature enough to be harvested for grain, says Jacobs. If the corn has not matured sufficiently after this period, the crop can be harvested for whole plant corn silage.

Even though moisture content is usually about 70 percent in average corn silage, whole plant corn silage with 50 percent moisture content will keep well in silos or stacks when finely chopped and well packed. If moisture content falls below 50 percent, water should be added to silage material at time of ensiling, says Jacobs.

add 1 - immature corn

More information is contained in Extension Bulletin No. 308, "Silage Production and Preservation," and Agronomy Fact Sheet No. 9, "Corn Silage." The publications are available from your county agent or from the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

Whole plant corn silage, fortified with protein supplement and minerals can be the chief energy feed for fattening calves of 350 pounds and more, and yearlings. Calves on full silage feeding, plus protein supplement, should gain about 1.9 pounds per day and yearlings about 2.2 pounds per day, says Jacobs. Feeding an additional two pounds of cracked corn (air-dry basis) per head daily will mean gains of about 2.2 pounds per day for calves and 2.5 pounds for yearlings.

Adequate protein supplementation is important in full-feeding corn silage. A daily allowance of 1.3 pounds total crude protein should be fed to 400 pound fattening calves, 1.8 pounds to 600 pound calves, 2 pounds to 800 pound calves and 2.3 pounds to 1,000 pound calves. Yearlings of 600 pounds need 1.8 pounds crude protein; 800 pound yearlings, 2.2 pounds; and 1,000 pound yearlings, 2.6 pounds.

Cattle full-fed whole plant corn silage and protein supplement with no additional grain will eat about 5.5 pounds of silage per hundred pounds live weight.

To determine daily crude protein requirement for a 400 pound fattening calf for example: Multiply animal weight of 400 lbs. times 5.5 lbs. This equals 22 lbs. of silage. At 2.3 percent of protein in the silage, we get .506 lbs. of crude protein from silage. From the daily protein requirement of 1.3 lbs. for a 400 pound calf, we find we need an additional 0.8 lb. of crude protein which must be added by feeding protein supplement. Using a 40 percent protein supplement, two pounds will provide sufficient crude protein (2 lbs. x 40 percent protein supplement = 0.8 lbs. crude protein).

Cattle full-fed whole plant corn silage usually require vitamin A supplementation. Supplementation with 20,000 units of vitamin A per head daily is usually recommended. Commercial protein supplements usually contain adequate vitamin A additions at little extra cost.

add 2 - immature corn

Jacobs says rations containing at least two pounds of high energy grain, such as corn, barley or wheat, produce more efficient silage utilization than rations with only silage, protein supplements and minerals. But feeders can full-feed corn silage, protein supplements and minerals to calves for seven to eight months and to yearlings for five to six months. Then corn grain or barley can be added to the finishing ration.

With a previous full-fed diet of silage and protein supplement and no additional energy feeds, cattle deserving a U. S. Choice finish will need at least a pound of grain daily per hundredweight during a two to three month finishing period, says Jacobs.

Providing adequate minerals and salt on a free-choice basis is important when cattle are full-fed on whole plant corn silage rations, even though the protein supplement contains minerals. Commercial mixtures of 20 percent calcium and six percent phosphorus; or equal parts of ground limestone, steamed bonemeal or di-calcium phosphate and trace mineralized salt, will serve well.

Department of Information  
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St. Paul, Minnesota 55101  
October 11, 1965

To all counties

Immediate release

CONSTRUCT MILKHOUSE  
LARGE ENOUGH FOR  
INCREASED PRODUCTION

Dairy farmers constructing a milkhouse or milkroom should be sure to plan for an adequate size to meet future demands, says V. S. Packard, extension dairy products specialist at the University of Minnesota.

With construction getting underway to meet requirements of the 1965 Minnesota Milkhouse Law, Packard outlines some major points of the law.

The law applies only to producers of manufacturing grade milk and only those producers handling milk in bulk tanks. Can milk producers are exempt. For producers installing a bulk tank for the first time, the law has been in effect since July 1, 1965. Bulk installations existing before July 1, 1965, will have to meet the law's requirements by January 1, 1968.

As production increases, farmers must consider installing larger tanks, says Packard, and minimum milkhouse size should be 12 x 14 feet. Recommendations are being made to assure 36 inches between outlet end and other equipment or the nearest wall and 24 inches clearance on the other sides.

Gauging tank size for every-other-day pick up, use production of seven milkings during the flush season as a measure. Packard says, "Experience indicates you'll soon be filling the tank in two days."

add 1 - construct milkhouse

Drains should not be placed under the tank or outlet valve. Put drains where most water is found--near wash sinks--and  $1\frac{1}{2}$  feet from outside walls to prevent freezing. Also, drain pipes should not be run through the wall.

Use a hose port fitted with a tight self-closing door. Make hose port six to eight inches square. Locate the port in an exterior wall, about six inches above the milkhouse floor and outside loading apron.

The milkroom should have an adequate, readily accessible water supply and water heaters. Packard says a 30-gallon water heater will be needed if no pipeline is used. Heater capacity should be 50 or 60 gallons capacity with pipelines. Higher temperatures may be required with pipeline systems.

Lights should not be placed directly over the bulk tank. Use two 150-watt bulbs placed above and just beyond the end of the tank. Windows are not required, but are desirable. Make window space equal to 10 percent of floor area and screen windows.

For ventilation, make outside fresh air inlets with a cross section area equal to one square foot per 750 cubic feet per minute (CFM) of fan capacity. Fan capacity in cfm should be equal to  $\frac{1}{6}$  the cubic volume. Example: Milkroom size 12 x 14 x 8. Fan capacity  $12 \times 14 \times 8 \times \frac{1}{6} = 224$  cfm. The bulk tank should not be located under a ventilator.

Recommended construction calls for a five-inch-thick concrete floor poured over at least eight inches of sand or gravel fill. For proper drainage, slope the floor at least one quarter inch per foot toward drains.

Use tight construction for the ceiling and walls of the room. Packard says building materials might include matched lumber (shiplap or flooring), exterior plywood, and asbestos board or similar exterior materials on lumber backing.

A vestibule is not required. Use a solid, tight-fitting, self-closing door between the milkroom and bar, stable or milking parlor. Make the outer door large enough to move a bulk tank in or out--possibly a tank larger than the present model. If outer door swings inward, provide an outward-opening screen door during fly season.

add 3 - construct milkhouse

Other equipment should include a two-compartment wash and rinse sink, with a drying rack, preferably metal. Construct a storage cabinet for milk filters, gaskets and additional supplies. Insecticides, medicinals, and weed, fungus and rodent killers should never be stored in the milkhouse, says Packard.

For more information, read Special Report No. 9, "Milkhouse and Milkroom Construction for Quality Milk Production." Copies are available from your county agent or the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
October 11, 1965

Immediate release

#### WINNERS NAMED IN 4-H CARCASS EVALUATION CONTEST

Six 4-H members are well on their way toward producing the type of meat animals demanded by today's consumers.

The four boys and two girls won grand championships and reserve championships for showing top-quality beef, lamb and pork in the 4-H carcass contest held following the State 4-H Market Livestock Show.

Robert Olson, Avoca, won grand championship and an award of \$300 for showing the grand championship beef carcass. Grand championship awards of \$200 went to Gary Prescher, Delavan, in the pork division and to Kendall Bogue, Farmington, in the lamb division.

Tom Eggiman, Jackson, won the \$100 reserve championship award in the beef carcass contest.

Runner-up winner of \$50 in the hog carcass division was Karen Annexstad, St. Peter. The reserve championship award of \$50 in the lamb division went to Linda Herr, Brownsdale.

Donors of the championship awards were the Armour and Swift Packing Companies of South St. Paul. Blue ribbon awards were provided by various business firms. Blue ribbon winners in the beef class received \$40, in the hog class \$20 and in the lamb class \$15. Ninety-five blue ribbon winners were named in the combined groups.

Carcass quality was evaluated following slaughter of the approximately 700 animals entered in the State 4-H Market Livestock Show which was held on the State Fair Grounds Sept. 27 - 29. In the evaluation, the type of meat demanded by today's consumer was considered.

"The emphasis placed on quality meat production makes the carcass contest an important aspect of the State 4-H Market Livestock Show," according to Charles Christians, extension animal husbandman at the University of Minnesota and chairman of the Carcass Contest Committee.

Among criteria considered in judging carcass quality, Christians listed leanness of the carcass, quality of the meat and amount of loin-eye muscle. Beef and lamb carcasses should grade high Choice to Prime in quality, he said.

# # #

65-241-jbn

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
October 11, 1965

For release at noon  
Wednesday, Oct. 13

#### RECREATION INDUSTRY BENEFITS FROM PLANNING

Grand Rapids--Minnesota's recreation industry is one that has much to gain from comprehensive land use planning, a University of Minnesota economist said here today.

Robert W. Snyder, Extension Economist in Land Use, said the combination of public and private facilities in the recreation industry make this planning especially important. Building codes, zoning laws, planning maps, and policies to guide public improvements are crucial to the recreation industry.

Snyder pointed out that at least three levels of government are involved in the recreation industry--Federal, State, and Local. Public grants to aid comprehensive planning are involved through provision of facilities, licensing of sportsmen, technical and financial assistance, and other services and facilities such as local police and fire protection.

(more)

add 1 -- Planning Recreation Industry

The recreation industry is unique, Snyder said, in that instead of having a fixed resource base, it is expanding. At least 3/4 of the land left by retirement from farming is available for uses such as recreation.

Nationally, Snyder said, this totals some 30 million acres in the 48 contiguous states of the nation.

Snyder said the next five to ten years could be crucial for areas that succeed in attracting a great number of vacationers.

Another reason for comprehensive planning, Snyder continued, is the role played by the physical environment in recreation.

Furthermore, he said, recreation is one of the few industries with real potential for employment expansion in rural areas. Unlike many production industries, such as agriculture and mining, recreation is not marked by heavy substitution of capital for labor.

This, recreation is an area in which many communities can take advantage of a national trend.

Snyder cited some of the forms of public assistance in planning. Under Federal law, every county is eligible for "701 funds" for urban planning assistance. This program provides for comprehensive planning, including background studies and analysis.

Furthermore, there are provisions in state law for the state to pay as much as half of the local costs of certain kinds of planning activities.

Snyder spoke at a regional resort management workshop on planning development improvement, at Grand Rapids October 13. The workshop is sponsored by the University's Agricultural Extension Service.

# # #

65-242-pjt

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
October 11, 1965

Immediate release

#### 4-H CLUBS SEEK AID TO IMPROVE COMMUNITIES

Nineteen 4-H clubs in Minnesota have requested "grants in aid" to conduct a citizenship-in-action program reflecting recognized needs in their communities.

Counties requesting funds are Benton, Cook, Dodge, Isanti, Itasca, Lincoln, Morrison, Norman, Roseau, St. Louis and Wright.

Grants will range from \$50 to \$500. They will be used on programs through which better understanding of citizenship will be developed among the 4-H members participating, according to William Milbrath, extension specialist, young adult program, University of Minnesota.

Responsible older 4-H members will conduct and plan different projects. Examples of different programs are: expanding and improving a neighborhood road-side park including the building of a shelter determining by questionnaire and pre-testing how a new state park should be developed, establishing a public campground and recreation area in an underdeveloped memorial forest, building a community center, improving a public swimming beach, encouraging highway safety by placing stop and safety 4-H signs, beautifying the township cemetery, constructing three nature trails in areas connected with a park and forest reserve area, developing a wildflower sanctuary and conducting a county-wide safety campaign.

The "Citizenship in Action" program is conducted by the National 4-H Club Foundation in behalf of the Cooperative Extension Service and is sponsored by the Readers' Digest Foundation.

Applications for the "Citizenship in Action" program have been forwarded to the National 4-H Club Foundation, Washington, D. C. The State Agricultural Extension Service will be notified in November regarding the applications that have been selected to receive funds.

# # #

65-243-smk

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
October 14, 1965

Immediate release

#### 4-H WINNERS NAMED IN HOME ECONOMICS PROJECTS

A Norman County girl's talents in homemaking--whether it's sewing her own clothes, baking bread, canning and freezing food or redecorating her room--have paid off in a trip to the National 4-H Club Congress in Chicago in late November.

She is Laurel Hoff, 19, Ferley, who has been named state winner in 4-H home economics projects. As a freshman at North Dakota State University majoring in home economics, she is putting to good use her 4-H project experience. She has won awards in the sheep project in addition to more than a hundred blue ribbons in home economics exhibits and demonstrations.

Other Minnesota girls who will be awarded trips to the National 4-H Club Congress for their achievements in various home economics projects are Gail Haney, 19, Rochester, bread; Jean Freeberg, 18, Willmar, foods-nutrition; Jean Tobolt, 18, Moorhead, clothing; Virginia Gehrman, 17, 12720 Wayzata Blvd., Minnetonka, home improvement-family living; and Pamela Berglund, 18, Scandia, dress revue.

Rhonda Riess, 16, Oronoco, will receive a watch as state winner in dairy foods.

(more)

add 1 --4-H National Club Congress

Miss Haney is a sophomore at Rochester Junior College, preparing for a career in teaching. As she looks back on her 4-H work, she feels that two of her greatest accomplishments were baking her first loaf of bread and making her first meal at the age of 11. Since then she has made 120 loaves of yeast bread, baked dozens of quick breads, more than 100 dozen yeast rolls and made well over 100 family meals. She has had exhibits in foods and food science, has demonstrated at the State Fair and taught other girls to bake bread. In 1964 she was an Olmsted County delegate in the Minnesota-Maryland exchange.

From burned cookies the first year she was in 4-H, Miss Freeberg has progressed each year until in the last seven years she can point to 248 meals she has made which the family has enjoyed, including Thanksgiving dinner. The "shaking legs" during her first demonstration have been succeeded by poise as she demonstrated cheese making at the Minnesota State Fair. This fall her State Fair demonstration was based on two recipes for homemade cheese which she received from a 4-H specialist in home economics in Finland. Many awards have come her way for foods exhibits and demonstrations, and she has shared her knowledge by helping younger members. She received the Minnesota Key Award this year and was named top 4-H girl in Kandiyohi County. She is a freshman at Willmar Junior College, beginning her preparation for a teaching career.

The satisfaction Miss Tobolt has received from teaching 4-H'ers how to sew and the enjoyment she gets from working with color and materials have been the determining factors in selecting her future career--teaching art. She is enrolled as a freshman in art education at the University of Minnesota. She tailors her own dresses and suits--and this year has made 13 garments at a saving, she figures, of \$270. She has won many championships in clothing in Clay County and two years ago was chosen to the State Dress Revue Court of Honor. She has received the 4-H Key Award and is a member of the Clay County 4-H Council Board of Directors.

(more)

As part of the home improvement-family living project, which she has taken for eight years, Miss Gehrman has redecorated her bedroom, carrying out principles she learned in use of color, texture and balance. She has won purple ribbons for two State Fair demonstrations on topics relating to art--one on hanging pictures, the other on accessories. She has refinished six ladder-back chairs and an oak chest and has made book ends. She has helped re-arrange the home kitchen and laundry area for greater efficiency and to improve storage. In the money management phase of the project, she is learning to save money through better buymanship. She has been a junior project leader in home improvement four years, working with younger Hennepin County 4-H'ers. Now a senior in Wayzata High School, she plans to attend the University of Minnesota to prepare for elementary school teaching.

Miss Berglund has made 38 garments throughout her seven years in the clothing project. These garments contribute to a modest but well chosen, tasteful wardrobe suitable for a person with many interests. Planning clothing expenditures carefully has been important to her in a family of four girls.

As the oldest member of the Panola Rockets 4-H Club in Chisago County, she has conducted clothing project meetings, has assisted in clothing exhibits and demonstrations, has given modeling tips and helped organize the county fair dress revue. This year she is president of the County 4-H Federation, is state 4-H vice president, was a member of the State Fair Dress Revue Court of Honor and attended the American Institute of Cooperation at the University of Missouri. She is a freshman at the University of Minnesota, majoring in physical education.

A junior in John Marshall Senior High School, Rochester, Miss Riess has been a 4-H member for eight years and is now president of the Cascade Cruisers 4-H Club. She has been especially interested in the dairy foods phase of her food preparation project and has demonstrated dairy foods twice at the State Fair. She has led food project meetings for members in her club and has prepared dairy foods to be sampled at supermarkets. From the first time she baked a cake and forgot the flour, she has progressed to the point where she prepares meals for the family and demonstrates preparation of dairy foods with ease.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
October 14, 1965

Immediate release

UM TO HOST GROCERY MANUFACTURERS CONFERENCE OCTOBER 19-20

The University of Minnesota's Institute of Agriculture will host the 37th semi-annual conference of the Agricultural Advisory Committee of the Grocery Manufacturers of America (GMA) October 19 and 20 in the North Star Ballroom, Student Center, St. Paul Campus.

Tuesday morning discussions will center on the livestock and dairy industry. Speakers include Roy Green of Swift and Co. and University department heads Lester Hanson, animal husbandry; S. T. Coulter, dairy products; and C. L. Cole, dairy husbandry.

At a noon luncheon, John Blackmore, director of International Agricultural Programs, will outline world food problems.

Tuesday afternoon sessions will focus on grain production, marketing and processing, especially in the Upper Midwest. Speakers include Reynold Dahl, agricultural economics department; Dallas Western of Quaker Oats Company; Amos Flint of Corn Products Company; and George Wilkins, executive vice president of the Minneapolis Grain Exchange.

Wednesday morning, University department heads George Donohue, rural sociology, and Vernon Ruttan, agricultural economics, discuss changes in agriculture and rural areas. Al Moll of Stokely-Van Camp speaks on effects of agricultural changes on vegetable production and Ray Jones, Jr. of the Fillsbury Co. talks on Red River Valley potato processing.

At the noon luncheon Wednesday, Keith McFarland, assistant dean of the Institute of Agriculture, will discuss how students are prepared for employment in the food industry. James Stevenson of Armour and Company will speak on what the industry seeks in prospective employees.

GMA, established in 1908, is an industrial organization of more than 300 food industry companies. The Agricultural Advisory Committee is made up of agricultural representatives from about 35 GMA member-companies and works to improve cooperation between farmers and manufacturers.       ###                               65-244-dcf

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
October 14, 1965

Immediate release

## HIGH SCHOOL SENIORS URGED TO APPLY FOR UM SCHOLARSHIPS NOW

High school seniors planning to enter the University of Minnesota and specifically, the College of Agriculture, Forestry and Home Economics in the fall of 1966, should complete scholarship applications as soon as possible.

Deadline for applications is December 15, 1965, according to Ralph E. Miller, scholarship advisor for the College of Agriculture, Forestry and Home Economics.

The Application for Financial Aid and the Parents' Confidential Statement should be available from the high school principal or counselor, says Miller. For the Application for Financial Aid to be considered by the University, the Parents' Confidential Statement must be filed with the College Scholarship Service by January 15, 1966.

A student makes only one application and is considered for the scholarships for which he is eligible, says Miller. High school counselors will have applications or information about how to get the forms. The scholarships are usually awarded to able, but needy students.

To be considered for a scholarship, a student must:

- Be a resident of Minnesota.
- Be in the upper one-fourth of the junior class and a graduate of an accredited high school.
- Meet the admission requirements of the particular college. For the College of Agriculture, Forestry and Home Economics, the student must have completed three years of mathematics: elementary algebra, geometry and higher algebra. Also, the student must be in the upper 60 percent of his class in high school rank. Most curriculums have these requirements, though the related art major in home economics requires only one unit in mathematics (elementary algebra) for entrance.

# # #

65-245-dcf

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
October 15, 1965

Immediate release

This is a corrective version of release sent out October 1, 1965 entitled  
"Handling Frost-Killed Corn and Soybeans"

#### HARVESTING CARE CAN MINIMIZE CORN AND SOYBEAN LOSSES

The September 26 freeze caused a \$63 million loss to Minnesota corn and soybean growers, according to preliminary estimates from the State-Federal Crop and Livestock Reporting Service. But care in harvesting the crops can minimize further losses.

Harley Otto, extension agronomist at the University of Minnesota, recommends combining soybeans when the moisture content is about 14 percent. Adjust the combine setting to harvest soybeans as low as possible to prevent field losses. Also adjust the combine to keep beans from being thrown out or damaged in the combine.

Farmers should check combine adjustment periodically throughout the day for best harvesting results. Soybeans dry out fast so the combine may require adjustments during the day.

With some fields more immature than others, keep the green beans separate from the mature beans, so grade will be reduced as little as possible when the beans are sold. The maximum limit for damaged kernels is three percent for grade two soybeans and eight percent for sample grade soybeans.

(more)

## add 1 --Corn and Soybean Losses

Soybeans harvested for seed should have a germination test because the combination of cold weather and high moisture content may have damaged the seed's germinating properties, says Otto.

If germination damage seems likely, the germination test should be run before beans are cleaned. If adequate storage space is available, store seed soybeans until germination is tested. Farmers are urged to keep soybeans in sound structures to prevent storage losses. When high moisture corn is being harvested for grain, the corn must be dried before storage, says Otto.

One method is to let the corn dry in the field. Average moisture loss per day is about one-half to three-quarter percent in good drying weather, but there is increased possibility of field loss from dropped ears, lodging and stalk breakage. Ear corn can be stored in narrow cribs with a maximum width of 5-1/2 feet. This method gives the advantage of inexpensive drying from wind action. Ear corn stored in narrow cribs can contain as much as 35 percent kernel moisture if the cribs are located away from buildings, trees or other obstructions and thus receive full benefit from wind movement. Wider cribs should have crib ventilators to reduce the distance the air must travel through the corn.

Artificial drying with heated air can be used to reduce moisture content to a safe level for storage.

Shelled or ground ear corn which is wet can also be ensiled. Otto says the silo should be as tight as possible to keep out air and may need reinforcement to hold this material. Kernel moisture content should be 30-35 percent for ground ear corn and about 30 percent for ground shelled corn. If shelled corn is not ground, the moisture level can be somewhat higher.

For more information on/<sup>corn</sup>storage, read Agronomy Fact Sheet No. 9, "Corn Silage," and Agricultural Engineering Fact Sheet No. 12, "Storing and Drying Wet Corn." Copies are available from your county agent or the Bulletin Room, University of Minnesota, St. Paul, Minn. 55101.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 18, 1965

To all counties  
4-H NEWS  
Immediate release

YOU CAN HAVE  
WINTER BEAUTY  
WITH INDOOR BULBS

Pot some tulip, daffodil, hyacinth or crocus bulbs before the end of October and you should have flowers to brighten your home in January or February.

Be sure to buy bulbs of good quality and size and varieties adapted to pot culture, advises C. Gustav Hard, extension horticulturist at the University of Minnesota.

Ideal temperature for rooting these bulbs is 40° F.; for growing, 50° F.; and for flowering, 60° F.

Here are the University horticulturist's suggestions on forcing bulbs for indoor bloom:

- . Use clay flower pots 6 inches in diameter, placing pieces of broken pots, stones or gravel in the bottom for good drainage.

- . Fill the pot at least half full of soil. Plant the bulbs pointed end up, allowing half an inch between each bulb. Plant the same type of bulbs in one pot -- all tulips or all daffodils, for example.

- . Cover the bulbs with half an inch of soil.

- . Soak thoroughly with water immediately after potting.

- . Label each pot with the name and variety of bulbs.

4-H boys and girls who have only a few bulbs can use an easy method of storing the bulbs for rooting. Add a couple of inches of sand or gravel for drainage in the bottom of an apple box or similar container and set the potted bulbs in the box. Surround each pot with moist peat moss or leaves and cover with straw or hay. Place the box in a cool spot outdoors.

About eight weeks after planting, when the bottom of the flower pot is full of roots, bring the bulbs indoors, but put them on a porch where the temperature is between 40 and 50° F. Keep the plants out of direct sunlight for about two weeks. After the bulbs have made a few inches of top growth, bring them into full sunlight where the temperature is 65° to 70° F. Keep the soil moist at all times, especially while the plant is in flower.

Forcing bulbs is one of the aspects of the 4-H indoor gardening project.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 18, 1965

To all counties  
ATT: HOME AGENTS  
Immediate release

PARENTS CAN HELP  
CHILD SURMOUNT  
CRISIS OR DISASTER

How do children react to crises such as serious illness or death in the family, divorce or such disasters as fires and floods? What can parents do to help the children surmount a crisis so that it will not have long-range effects on his feelings and behavior?

Frequently parents feel they should shield children from knowledge of some disastrous happening. But R. L. Pitzer, extension family life education specialist at the University of Minnesota, points out that an unwillingness or inability to discuss a distressing event may actually result in an effect opposite to what the parent intended. Adult concealment or evasion may increase a child's apprehension and anxieties.

At any moment of crisis, Pitzer says, a child turns to his parents for cues not only as to how he should behave but also as to how he should feel. "If the parent abandons his role as guide and source of support, the child finds his world topsy-turvy. If parents go to pieces or otherwise exhibit emotional distress in the presence of their children, they are essentially abandoning this aspect of their parental role," the University family life specialist declares.

Young children rarely react to disaster news directly, Pitzer explains. When a crisis arises, children react largely to the attitudes, emotional responses and tone of voice of persons around them. Hence, if adults are able to avoid feeling needless alarm and irrational panic in times of crisis, children seldom miss the cue.

Although a child should not be burdened with details of illness or misfortune which he can't comprehend, he should be given a simple explanation adapted to his age and ability to understand. "The ideal time to discuss a child's worries is when the child brings them up and wants to talk about them, not when the parent gets around to it," says Pitzer.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 18, 1965

To all counties  
Immediate release

IN BRIEF.....

Orchard Care: Some pruning of orchard trees should be done in fall. All dead, broken or diseased branches can be removed as soon as trees are dormant, says Neil Miles, extension horticulturist at the University of Minnesota. The major pruning should wait until late winter when trees are still dormant, but after the coldest winter weather has past.

\* \* \* \*

Gopher Control: In the fall, pocket gophers are active near the surface of the ground, expanding runways and mounds and excavating storage chambers for their winter food supply. The increased surface activity means increased damage to shrubs and tree plantations. Norman Johnson, state supervisor of the division of wildlife services of the U. S. Fish and Wildlife Service, says the best control measure is to use a burrow builder machine and strychnine-treated grain as bait.

For more information on controlling pocket gophers, write to the Department of Agriculture, State Office Building, St. Paul, Minnesota; or to U. S. Fish and Wildlife Service, Room 670, State Office Building, St. Paul, Minnesota.

\* \* \* \*

Grain Insects: Insects in stored grain can cause contamination and direct loss of grain. John Lofgren, University of Minnesota extension entomologist, says food grain regulations prohibit sale of contaminated or unsanitary grain. Insect infestation in a grain bin usually indicates a combination of factors: dirty or damaged grain, moisture content above safe levels, and excess grain temperature. For more details on preventing and controlling stored grain insects, read Entomology Fact Sheet No. 9, "Insects in Stored Grain." Get a copy from your county agent or from the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 18, 1965

To all counties  
Immediate release

CROP DISEASES  
REVIEWED FOR  
1965 IN MINNESOTA

Compared with crop damage and lowered yields from the September freeze, late planting and water damage, diseases caused only light losses to Minnesota field crops in 1965.

Extension plant pathologist Herbert G. Johnson at the University of Minnesota points out that severity of plant diseases varies widely from year to year and summarizes 1965 evidence on diseases for various field crops:

Corn. The corn virus disease was not identified in Minnesota this year. Tests run by University researchers showed negative results.

Crazy top disease was reported in some areas, but acreage affected was insignificant in comparison with total acreage in the state. Abnormal tassel growth is caused by infection with a downy mildew fungus. The disease occurs mostly in low field spots where plants stand in water a short time--long enough to start the fungus growth, but not long enough to kill the plants. Plants infected with the unusual disease produce no ears.

Northern corn leaf blight, which causes oblong leaf spots on corn, was present this season, but in small amounts.

Soybeans. A root rot disease, first identified in Minnesota in 1964, showed up in several south central counties of the state this year. The disease was identified when plants were noticed dying on low ground in greater numbers than is likely from water damage. Though the disease was not widespread, soil from the infected areas was taken to University greenhouses to test susceptible plants against resistant plants. Test results indicate soybean varieties are available with good resistance to the disease. -more-

add 1 - crop diseases reviewed

Bacterial leaf blight and stem canker were present in soybean crops in about normal amounts this season. Some injury was also caused from accidental application of weed chemicals. Hormone type chemicals drifting from adjacent fields or carried over from the previous year produced some damage and symptoms are much like those of infectious diseases.

Alfalfa. After a poor start, much of the first alfalfa crop was hit by leaf spot. Some leaf spot is expected on the lower leaves. But even though the first alfalfa crop was cut in early blossom stage, leaf spot fungus was infecting the top leaves and growing as fast as the crop. No direct control measures are known to combat leaf spot. Recommendations call for good cultural practices, fertilizing to encourage rapid crop growth and cutting at the proper time.

Sugar Beets. As sugar beets have increased in popularity and importance, cercospora leaf spot has caused an increasing amount of damage in Minnesota. In 1963, the fungus disease was severe and in 1964, the disease had its highest incidence to date in the state. During these years, fungicide spray programs returned \$3-\$5 for every dollar spent.

A striking change occurred in 1965. As in past years, the disease was present by mid-July, but a month later the leaf spot infection had not increased. Spraying started in June and July was discontinued. Cercospora leaf spot thrived during hot periods of 1964, however, the cool weather in 1965 seemed to check the leaf spot growth.

The disease is still present and overwinters in plant refuse. It generally starts earlier and is most severe in fields adjacent to where sugar beets were grown the previous year. But the growth of leaf spot seems to depend on weather conditions.

Wheat. Leaf rust was severe this season, even for recommended varieties, and hurt wheat yield because leaves began dropping off even before the kernels were fully developed. Cris, a new wheat variety, showed up well when tested against other varieties in comparison plots. The new variety's leaves remained green even after leaves had dropped off other varieties.

add 2 - crop diseases reviewed

Crazy top disease, which affects corn, also produced some damage to grass-type crops, such as: wheat, oats and barley. In wheat, the disease caused abnormal heads and kinking of the stems below the head. Some persons thought the symptoms were caused by chemical injury, but tests showed large spores in the wheat leaf tissue indicating crazy top disease.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota  
October 19, 1965

Immediate release

#### MINN. 4-H'ERS AWARDED SAFETY TRIPS

Seven Minnesota 4-H'ers have been awarded trips to the National Safety Congress in Chicago Oct. 24-27 for their safety and fire prevention activities in their homes and communities, according to Earl Bergerud, assistant state 4-H club leader at the University of Minnesota.

The 4-H'ers are Steven Schmidt, 16, North Branch; Kathleen Welscher, 17, Caledonia; Jean Haberman, 19, Windom; Paula Byhaug, 16, Dawson; Michael Radniedki, 17, Trail; Kathleen Josephson, 16, Virginia; and Verna Cheney, 17, Eagle Bend.

Sponsors of the trips are the St. Paul Pioneer Press and Dispatch, Midland Cooperatives, Minneapolis and Mutual Service Insurance Co., St. Paul.

Also in the group will be Lesley Lysne, 14, a State Fair purple ribbon demonstrator from Chisago County, who has been invited to give her water safety demonstration at the Congress Oct. 25. In her demonstration, "Reach, Throw, Row, Tow and Go," the 9th grader from Taylors Falls will show methods of life saving.

Eileen Monson, Lyon County home agent, and Bergerud will accompany the 4-H'ers to Chicago.

As part of his safety work Schmidt has conducted a farm fire survey, reflectorized bicycles, supplied farmers with reflectorized tape and given safety demonstrations at county and state fairs. A junior in North Branch High School, he received the Chisago County safety medal in 1964.

Miss Haberman has assisted with spring cleanup and a 400-car safety checkup in Cottonwood County. She has won top placings in the county safety poster contest a number of times. A 4-H Key Award recipient, she is currently employed as an office secretary.

(more)

add 1 --Safety Trips

As a safety project member, Miss Welscher corrected 65 hazards in her home and community. She is a four-year winner of the Houston County 4-H safety and fire prevention award. She has demonstrated the safe handling of plastic bags and has practiced tornado safety rules. A senior in Loretto High School, she has been a 4-H'er for seven years.

Miss Byhaug has served as assistant safety leader for three years in Lac qui Parle County. The eight year 4-H'er has corrected approximately 125 hazards in the home, farm and community, prepared soda fire extinguishers for use in kitchens, placed safety literature in the public library and sold first aid kits. She is a senior at Dawson High School.

Radniecki has vaccinated dogs against rabies, painted rural mailboxes and set up displays for Safety Week. As part of his safety project work, he has removed 176 hazards. The Fennington County youth won the Danforth award as outstanding junior leader in the county. He is a senior in Oklee Public High School.

As a three-year safety project member, Miss Josephson has participated in safety car checks, promotion of pedestrian safety, preparation of safety booths and safety slogans. She is local safety chairman and a representative on the Virginia Safety Council in North St. Louis County. After graduation from Roosevelt High School, she plans to enter the University of Minnesota to major in home economics.

Miss Cheney feels that traffic safety is one of the most important safety activities. She has written articles for her local paper and has been a member of the Teen Safety Panel of the Todd County Leader's Council. A two-year recipient of the county safety medal, she has made safety coloring books for the first through third grades at Eagle Bend Public Grade School and set up window displays for National Farm Safety Week. She is a senior at Eagle Bend Public High School.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
October 19, 1965

Immediate release

#### CVANCARA JOINS UM AGRICULTURE SHORT COURSE STAFF

Joseph G. Cvancara, who has been on the University of Minnesota staff for the past three years, has assumed new duties as the coordinator of Foreign Training Programs with the Department of Agricultural Short Courses.

He replaces Al W. Keating, who resigned in May to accept a position with the American Farm Bureau Federation in Chicago.

Cvancara will be responsible for developing and administering educational programs and itineraries for foreign students and visitors on the St. Paul Campus. In carrying out his responsibilities, he will work closely with the United States Department of Agriculture, the Agency for International Development, and the Foreign Agricultural Organization, in Washington, D. C., and academic departments, the office of International Agricultural Programs, and the head of the Department of Agricultural Short Courses on the St. Paul Campus. In addition to his responsibilities in the area of foreign programs, Cvancara will also devote some time to Short Course activities and undergraduate teaching.

A native of Ross, North Dakota, Cvancara received his B.S. degree from North Dakota State University in 1955, an M. S. degree from the University of Minnesota in 1957 and a Ph. D. from the University in 1964.

He joined the University staff in 1962 as a teaching assistant in the Department of Agricultural Education. In 1964 he was named research associate in the same department.

He was a vocational agricultural instructor in Carson, N. Dak., in 1955-56, and in Mazeppa, Minn., from 1962-64. He served in the U.S. Air Force from 1958-60.

Cvancara's fields of specialization are agricultural education and agricultural economics. He has authored several publications in these areas.

Cvancara, his wife and two sons live at 3655-45th Ave. S. in Minneapolis.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
October 19, 1965

Immediate release

#### TEN 4-H CLUBS CITED FOR HEALTH ACTIVITIES

Ten 4-H clubs in Minnesota have been cited for their local health programs--ranging from emphasis on personal health habits to community service.

They are the Baldwin Livewires, Sherburne County; Chisholm Facesetters, North St. Louis County; Boon Lake Orioles, Renville County; Gray Livewires, Pipestone County; Oakland 4-H Club, Freeborn County; St. Croix Loggers, Washington County; Burtrum Boosters, Todd County; Bar-Cott 4-H Club, Faribault County; Camden Busy Gophers, Carver County; and Clark 4-H Club, Aitkin County.

The 10 clubs will receive certificates from Eli Lilly and Co., Indianapolis, in recognition of their health activities.

All 4-H members in each of the clubs are enrolled in the health project. They have emphasized improvement of personal health through health demonstrations and talks at meetings, through physical fitness programs promoting active sports and requiring annual physical and dental checkups and immunization. Nutritious diets, good posture and personal cleanliness have been stressed in their programs. One club focused attention on testing members and members' families for diabetes.

In the community service phase of the health project, the clubs made favors for hospital and rest-home patients, caroled for shut-ins at Christmas time, sent Christmas and birthday gifts to shut-ins, collected for various health drives, gave gifts to retarded children at a state hospital, distributed food to the needy and participated in clean-up campaigns.

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 2, 1965

To all counties  
Immediate release

IN BRIEF.....

When NOT to apply 2,4-D to Corn. Gerald Miller, extension agronomist at the University of Minnesota, reminds corn growers that 2,4-D can be used on corn from the time it emerges up to the time of tasselling. And it can be applied again after the corn grain has past the early dough stage. But, Miller warns, 2,4-D has not been cleared for use during that middle stage--the time from tasselling up to the dough stage. And it should not be applied to crops during this period. He adds that drop nozzels should be used after the corn is over eight inches in height.

\*\*\*\*\*

Don't let the heat get your chickens. Robert Berg, University of Minnesota extension poultry specialist says there are two main things to do to keep poultry deaths down during this hot time of year. First, wash and disinfect your watering equipment daily. And second, burn or bury dead birds as soon as you notice them in order to prevent diseases from spreading throughout your farmyard.

\*\*\*\*\*

Here's some advice from John Lofgren, extension entomologist at the University of Minnesota, on how to preserve the quality of your stored grain. First, clean the bin thoroughly, sweeping out and destroying old grain, dust, chaff and webbing. Then apply a residual bin spray to the walls, floor and braces. Spray solutions containing 2½ percent methoxychlor or a 1½ percent malathion to the point of runoff. You could also apply a grain protectant. To grain that is to be stored, apply protectants containing either pyrethrins or malathion. You can apply this just before the grain goes into the bin. Either liquid or dry formulations can be used. These protectants, Lofgren says, can also be used as surface sprays in the grain bin. This will protect the grain from surface infestations.

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 9, 1965

To all counties  
Immediate release

IN BRIEF.....

Planning to sell trees? If you're planning to sell trees from your woodland this summer or fall, Bill Miles, University of Minnesota extension forester, says to be sure to have a contract that specifies the log scale to be used, the lengths of logs to be cut and the quality and species of trees to be removed. He advises contacting the service forester in your area for his assistance in marking the trees to be removed. This service involves only a minimal charge to you and is provided by the Minnesota Division of Forestry representative in your area.

\*\*\*\*

Pesticide safety: It's a fact that well over half of all pesticide poisoning accidents happen to children. So keep these sprays and dusts out of the reach of children, pets and irresponsible adults. John Lofgren, extension entomologist at the University of Minnesota, contends that pesticide safety is mainly a matter of following the manufacturer's safety instructions. Just be careful when handling these chemicals. Lofgren also advises immediate disposal of empty containers to avoid posing a hazard to humans, animals and valuable plants.

\*\*\*\*

Mid-August to early September is a good time to start that new lawn or to renovate the old one. Gus Hard, extension horticulturist at the University of Minnesota, offers these steps for fall plantings. 1) Add organic matter such as barnyard manure, compost or agricultural peat to both heavy and light soils. 2) Add a complete fertilizer such as 10-10-10. Apply 40 to 50 pounds per 1,000 square feet now, and add some again before the end of September. 3) Work both the fertilizer and organic matter into the soil. 4) Sow good quality seed. Use Kentucky bluegrass for a sunny lawn or a mixture of fescue and bluegrass if you have a shaded or sandy lawn. 5) Keep the soil moist until the grass seed germinates. And 6) Mow the grass when it is about three inches tall. Early mowing does not injure the lawn grass.

\* \* \* \*

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 9, 1965

To all counties  
Immediate release

IN BRIEF.....

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 9, 1965

To all counties

For immediate release

GRAZING CAUTION  
IS ADVISED  
FOR ONE CROP

Sudangrass and sorghum-sudan hybrids make good forage, but use them with caution when frost time comes around.

They can be grazed or green-chopped safely during the summer and early fall, once they are at least 18 to 20 inches tall.

But once they are subjected to frost, their prussic acid level apparently increases to the extent where grazing may be dangerous. According to Jim Justin, University of Minnesota extension agronomist, frost apparently causes chemical changes within the plant, resulting in the higher prussic acid content.

Frosted plants definitely should not be grazed soon after frost. And to be on the safe side, its best to make some other use of the crop. Furthermore, excessively high level prussic acid after a frost could mean dangerous amounts even when plants become dry. Thus, hay made from such a crop could be dangerous to feed.

New growth after a light frost should not be fed until it has grown 18 to 20 inches.

The safest way to deal with frosted sorghum-sudangrass is to let some of the excess moisture dry out, then put the crop in the silo. Fermentation in a silo gets rid of prussic acid, and even makes a high level safe.

Fermentation in silos is usually complete in 10 to 14 days, after which there should be no prussic acid problem.

One other point: plants should wilt until they contain no more than 70 per cent moisture. Higher moisture levels may cause sour silage, which cows will not find very tasty.

All in all, silage from frosted sudangrass or sorghum-sudan hybrids will not be the best, but it does provide a way to salvage the crop.

Very few cases of prussic acid poisoning occur in cattle when sorghum crops are managed carefully, Justin says. But serious problems can occur when the prussic acid problem is overlooked.

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 9, 1965

To all counties

BEEF COW GAINS  
POPULARITY UPSURGE  
IN NORTHEAST MINNESOTA

Although farm numbers have declined in Northeast Minnesota, the beef cow is becoming an ever more common sight in that area.

Cattle men in Southern Minnesota and other areas are apparently showing their satisfaction with this growing source of calves for the feedlot.

This upsurge in beef cows in Northeast Minnesota has led a statewide trend. Beef cow numbers in Minnesota went from 185,000 in 1951 to 513,000 in 1965.

Economists A.R. Wells and S.A. Engene at the University of Minnesota surveyed 99 persons who owned or managed farms with beef cow herds in Northeast Minnesota during 1964.

The cow herd was a relatively new enterprise; only a third of the farmers had been raising them for ten years or more.

Among the 99 persons in the study, 67 were full-time farmers, 38 worked off the farm, and 4 were semi-retired. Eight of the farms had hired managers.

-more-

add 1 - beef cow gains

Herds on farms studied ranged in size from 16 to 375 cows. The beef cow herd was the only source of farm income on nearly a third of the farms. It provided more than half but not all of the gross farm income on 26 farms, and accounted for less than half on the rest.

Two of every three herds were Herefords. Others included 10 Angus herds, 7 beef-dairy crosses, and 15 which were mixed beef breeds, or other combinations.

Most beef cows were bred to have calves in April. Calves from 40 herds were weaned and sold as feeders weighing 375 to 400 pounds, about 7 months after birth.

In 29 herds, calves were separated from cows in the fall, but were kept on the farm either to be fed and sold as finished cattle or to be fed on a high forage ration and sold later as unfinished cattle.

How were the calves sold? Among 51 farmers selling calves, 20 sold them to cattle buyers, 15 sold direct to feedlots, 11 sold to South St. Paul, and 5 sold by various means.

Where calves were sold directly to feedlots, sales usually resulted from newspaper advertisements or personal contacts.

Selling methods varied according to herd size. Farmers selling to cattle buyers were more likely to have medium or large herds, thus making it worthwhile for a buyer to come to the farm. Those with smaller herds were more likely to ship calves directly to market in South St. Paul.

Calves from only five herds were fed out in the county where the cow herd was located. Calves from 25 herds (slightly less than half of all herds selling calves) went out of the county, but were fed out somewhere else in Minnesota. Most of these went to Southern Minnesota feedlots.

Five farmers sold calves that eventually left Minnesota to be fed out, and the 11 farmers who sold their calves at South St. Paul did not know the final destination of the calves.

For many farmers, the calves sold as feeders went to the same final destination year after year. This fact, the economists say, shows that cattle feeders were satisfied with calves raised in Northeastern Minnesota.

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 9, 1965

To all counties  
ATT: HOME AGENTS  
Immediate release

**FREEZE FRUIT JUICES  
FOR LATER USE**

Have you considered freezing juices of the fruits you raise in the garden for use later in beverages or for jelly?

Making jelly in hot summer weather often seems like a forbidding task. But when the weather is cool, it's another story. Besides, when the fruit juice is preserved, it's possible to make small batches of jelly and thus have a continuous fresh supply, says Verna Mikesh, extension nutritionist at the University of Minnesota.

-more-

add 1 - freeze fruit juices

Such Minnesota fruits as apples, Dolgo crabs, rhubarb, grapes and plums will yield delicious juices for freezing. Here are the University nutritionist's directions for preparing juices of some specific fruits for freezing:

. Apples. Wash fruit, put through food chopper, using coarsest blade. Do not heat. Squeeze juice through strong, clean cloth bag. Strain. Add  $\frac{1}{2}$  tea-spoon ascorbic acid per gallon of juice to preserve the flavor. Do not add sugar.

. Grapes. For beverages, select firm-ripe grapes with tender skins and full color and flavor. For jelly, select as recommended in specific jelly recipe. Wash, stem and crush grapes. Strain through a jelly bag. Let juice stand overnight in refrigerator or other cool place while sediment sinks to the bottom. Pour off clear juice for freezing.

. Rhubarb. Choose firm, tender, well colored stalks with good flavor and few fibers. Wash, trim and cut into pieces 4 to 6 inches long. Add 1 quart water to 4 quarts (5 pounds) rhubarb and bring just to a boil. Press hot fruit in jelly bag to extract juice. Cool. Sweeten, if desired, using  $\frac{1}{2}$  cup sugar to 1 quart of juice.

. Plums. For juice, choose firm, tree-ripened fruit of deep color. For juice to be used for jelly, select fruit as recommended in specific jelly recipe. Wash plums, then simmer until soft in enough water to barely cover. Strain through a jelly bag. Cool. If desired for beverages, sweeten with 1 to 2 cups sugar for each quart of juice, depending on tartness of fruit.

Blends of such juices as apple and plum make appealing beverages and jellies.

To freeze fruit juice, fill containers, leaving  $\frac{1}{2}$  inch space at top for pints, 1 inch for quarts if you use jars with wide top openings; for narrow-topped canning jars, leave  $\frac{3}{4}$  inch at the top of pint jars and  $1\frac{1}{2}$  inches at the top of quart jars.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 9, 1965

To all counties  
4-H NEWS  
Immediate release

4-H & FFA TRACTOR OPERATORS  
TO SHOW SKILL AT STATE FAIR

More than 40 4-H'ers and FFA'ers from 30 counties will show their mechanical skill and knowledge in the State Tractor Operators' Contest during the Minnesota State Fair.

The contest will be held, Sept. 2 and 3 on Machinery Hill on the State Fair grounds.

Representing \_\_\_\_\_ County is \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.  
(name) (age) (address)

An educational program will give older youth information on safe operation of tractors and farm machinery and on careers relating to the farm machinery industry, says William Olson, instructor in agricultural engineering at the University of Minnesota and contest coordinator. In addition, the 4-H'ers and FFA'ers will have to demonstrate their tractor operation skill in a competitive event.

The program is conducted jointly by the State Fair and the Retail Farm Equipment Dealers Association.

Participants in the contest must have satisfactorily completed work in tractor safety, care and maintenance, and gained experience at home in servicing and operating a farm tractor.

Contestants will be quizzed on steps in servicing a tractor, safety and other aspects of tractor care. Skill with a two- and four- wheel wagon attached, safety precautions and time required will determine the score.

Trophies will be awarded to the winners. The highest ranking 4-H member receives a trip sponsored by the Standard Oil Company to the Western U. S. 4-H Tractors Operators' Contest to be held at the University of Wisconsin, Madison, Wis., Oct. 3 - 5.

Additional information may be obtained from local county agents or vocational agriculture teachers.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 9, 1965

To all counties

4-H NEWS

Immediate release

LOCAL GIRLS  
TO MODEL IN  
STATE REVUE

\_\_\_\_\_ County girls will thrill and whirl in their winning outfits at the  
(no.)  
State 4-H Dress Revue, to be held during the Minnesota State Fair, Aug. 28 - Sept. 6.

They are (include names, addresses, 4-H clubs, ages and garments to be modeled).  
They will be among the 250 county dress revue winners at the State Fair event.

Three public dress revues will be held Aug. 31 - Sept. 2 at 3 p.m. in the  
auditorium on the second floor of the 4-H Building.

The dress revue provides an opportunity for the girls to learn through the  
clothing project, says Mrs. Claudia Woker, assistant state 4-H club leader at the  
University of Minnesota. They will benefit by evaluating each other's costumes  
and analyzing their own.

On the first of two busy days the girls will meet with University of Minnesota  
home economics specialists and 4-H staff members for discussions on poise and  
grooming, choice of pattern, texture, color, style and fit of the various outfits,  
as well as accessories and construction. In the afternoon the girls will visit  
Dayton's for a tea and a tour of the store's fall fashions.

On the morning of the revue, clothing specialists will confer individually  
with each girl about her outfit. Before the revue professional models from Dayton's  
will give the girls modeling tips.

Participants in the dress revue will choose members to the Court of Honor, to  
be announced following each of the public revues. The 4-H member in the Court of  
Honor with the highest placing record receives a trip sponsored by the Simplicity  
Pattern Company, New York, to National 4-H Club Congress.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 16, 1965

To all counties "M"  
ATT: HOME AGENTS

APPETITE APPEAL  
IMPORTANT FOR  
LUNCH BOX

August was long ago designated as Sandwich Month, probably because easy-to-make sandwich meals seem especially appropriate for hot weather.

But the focus on Sandwich Month might well serve as a reminder to lunch box packers to "spark up" the packed lunch -- whether it's for Dad, Mother or some other family member who works away from home.

Nutritious and appetizing are the keys to satisfactory packed lunches, in the opinion of extension nutritionists at the University of Minnesota. A sandwich, they say, is a neat, flavorful, easy-to-eat package of good nutrition. The enriched bread supplies generous amounts of the B-vitamins, thiamin, niacin and riboflavin, and iron, as well as protein, calcium and food energy. The fillings add still more needed nutrients to the sandwich.

add 1 - appetite appeal important for lunch box

But the same sandwich, day after day, can become tiresome. Here are some suggestions from the University nutritionists to add appetite appeal to the lunch box:

- . Vary the breads for sandwiches. Choose from rye, raisin, white, pumpernickel, French, whole wheat, date-nut and other breads.
- . Soften butter at room temperature and then cream it for good spreading consistency. Spread the butter evenly to the edge of each slice to prevent moist fillings from soaking into the bread.
- . Wrap sandwiches individually in moisture-vapor-proof material and refrigerate, packing in the lunch box at the last moment.
- . Vary the fillings. Luncheon meats, roast pork, leftover sliced roast beef, baked ham, chicken, turkey, dried beef, tuna, salmon, sliced cheese, cheese spreads, egg salad, and peanut butter make good fillings. These fillings may be changed by adding different seasonings, sauces and spices.
- . Pack some interesting garnishes or go-alongs to make the sandwich more appetizing: olives, cucumber sticks, green pepper rings, cherry tomatoes, pickled onions, hard-cooked egg wedges, cream cheese balls rolled in chopped nuts, melon balls, pickle chips, tomato wedges, cauliflowerettes, prunes stuffed with cream cheese.
- . Wrap crisp lettuce for the sandwich separately in waxed paper.
- . Prepare a week's supply of sandwiches all at once when you have a leftover roast on hand, wrap individually in moisture-vapor-proof material and then freeze. In the morning pack the still-frozen sandwich in the lunch box. It will thaw to just-made freshness by lunch time.
- . Cut sandwiches in halves, thirds or quarters for easier eating and more eye appeal.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 16, 1965

To all counties  
Immediate release

IN BRIEF.....

That fence post stock you piled for drying last spring should be about ready for preservative treatment. Here's how to tell if they're ready to be treated: Collect a few posts and weigh them every few days. When the weight doesn't drop anymore, they should be dry enough for treating. John Neetzel, forestry fencing specialist at the University of Minnesota, adds that posts usually develop deep end checks and lots of side checks if they're sufficiently dried.

\* \* \* \*

Livestock grazing and windbreaks are incompatible on the same area of land, says Marvin Smith, University of Minnesota extension forester. He explains that livestock grazing in windbreaks reduces their effectiveness. And here's how: Animals tend to compact the soil. This, in turn, interferes with root development and slows down moisture infiltration. The result is water run-off and erosion problems. Smith adds that grazing animals also cause mechanical injury to the bark and limbs by chewing and rubbing on the trees. The result is an ineffective windbreak.

\* \* \* \*

Peonies should be transplanted in August, according to Gus Hard, extension horticulturist at the University of Minnesota. He explains that plants which are blooming poorly may need to be transplanted. Lift the clumps and divide them into individual roots. Each root should have two or three buds. The buds should be planted no more than 1½ inches below the surface. Firm the soil so that the root does not settle any deeper than when it was planted. Mulch the plant the first winter.

\* \* \* \*

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 16, 1965

To all counties  
4-H NEWS  
Immediate release  
(4th of series of  
stories on State Fair)

MINN. STATE FAIR  
NEXT STEP FOR  
4-H JUDGING TEAM

\_\_\_\_\_ County's livestock judging teams will be among the 90 or more county teams competing for state awards during the Minnesota State Fair, Aug. 28 - Sept. 6.

Both the general and dairy livestock judging contests will be held at 8 a.m., Thursday, Sept. 2, in the Hippodrome on the State Fair grounds.

Members of the teams are: dairy -- (names, addresses and clubs); and livestock -- (names, addresses and clubs).

Judging is an educational experience as well as a competitive sport for 4-H'ers enrolled in a livestock project, say Earl Bergerud and Osgood Magnuson, assistant state 4-H club leaders at the University of Minnesota and assistant superintendents of 4-H livestock events at the State Fair.

The first place dairy judging team will represent Minnesota at the National Dairy Cattle Congress, Waterloo, Iowa, in the fall. Last year's winning team at the Minnesota State Fair was from McLeod County.

The winning team in general livestock will represent Minnesota during the International Livestock Exposition, Chicago, Illinois. Redwood County, last year's top team, won second place at the international show.

Both trips are sponsored by the Minnesota Livestock Breeders' Association.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 16, 1965

To all counties

4-H NEWS

Immediate release

(Last in a series of  
stories on the State  
Fair)

LIVESTOCK EXHIBITORS  
EAGER FOR STATE FAIR

\_\_\_\_\_ County livestock and poultry exhibitors  
(no.)  
are receiving last minute grooming tips in preparation for the Minnesota State  
Fair, Aug. 28 - Sept. 6.

The State Fair exhibitors are: (list names, addresses, club and exhibits).  
They are among the 1,300 4-H club members throughout the state who received top  
honors at county achievement days or county fairs.

All State Fair livestock and poultry exhibits will be in place and open to the  
public by Friday, Sept. 3, at 2 p.m., according to Earl Bergerud, and Osgood  
Magnuson, assistant state 4-H club leaders at the University of Minnesota and  
assistant superintendents of livestock exhibits at the State Fair. The stalls  
will be ready for the arriving exhibits at 7 a.m. that Friday morning.

Beef and dairy cattle judging will take place Saturday, Sept. 4, at 8 a.m. in  
the Hippodrome. Sheep, poultry and rabbits will be judged in the sheep and poultry  
barns at the same time that morning. In the afternoon swine will be judged in the  
sheep barn. Each 4-H member is required to show his own exhibit.

Showmanship contests except for dairy will follow judging of the particular  
classes. The dairy showmanship contest will be held 3:15 p.m., Saturday, Sept. 4.

The championship herdsmanship trophy for total county exhibits will be  
awarded at an assembly in the sheep barn at 11:30 a.m. on Labor Day.

Livestock demonstrations will be given on Labor Day beginning at 8 a.m. in  
the livestock and sheep barns.

All exhibits will be released on Labor Day at 6 p.m.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 16, 1965

To all counties  
Immediate release

CUT ALFALFA CROP  
BEFORE SEPT. 1  
TO PREVENT WINTERKILL

Taking that last cutting of alfalfa this fall might be tempting--but it could cost you most or all of your stand by next spring.

If you hope to keep an alfalfa field for another year, better plan on taking the last harvest before Sept. 1. Later cutting might lead to severe winterkill, according to Jim Justin, extension agronomist at the University of Minnesota.

Here is why.

Alfalfa regrowth after harvest is at the expense of food reserves stored in the plant's crown. If there is time allowed for good regrowth, these reserves will largely be restored.

But if these reserves are not replenished, the plant has a poor chance of getting started next spring.

So that is the problem: late cutting or grazing (after Sept. 1) may mean regrowth without time enough for replenishing the food reserves.

Justin suggests other reasons for avoiding late cutting. Several inches of fall growth helps catch and hold snow, which in turn helps prevent large temperature changes at the soil level.

Sudden and extreme changes can deal sudden death to plants, especially those which are not very winterhardy.

A snow covering also keeps the temperature within the plant crown from getting too low, and being killed by freezing.

Insulating effect of snow help by crop stubble has proved its value many times, Justin says. This alone has often meant the difference between survival and loss.

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 16, 1965

M  
To all counties  
Immediate release

CHEMICAL RESIDUES  
LEAVE SOIL  
BY VARIOUS ROUTES

A farmer concerned about chemical residues in his soil--as an aftermath of spraying for weed or insect control--has a number of natural forces working in his favor.

One of these forces, and a primary one, is microbial decomposition. Tiny soil microorganisms attack virtually all chemical molecules in one way or another.

There are other ways in which pesticides are lost or inactivated. Some are lost through vaporization (volatilization). Some residues leach down into the soil where they cause no further problem.

Some disappearance is due to plant removal, or the breakdown of pesticide molecules as they are taken up by plants. Finally, there is some chemical breakdown of pesticides, although very little has been proven by research to occur.

Since soil microorganisms are so important, they have long been in the scientific limelight where the residue problem is concerned. According to Russell Adams, Jr., soil chemist at the University of Minnesota, there seem to be no pesticide molecules that will not be attacked eventually by some soil microorganisms.

add 1 - chemical residues leave soil

Much ado has been raised about adding unnatural organic compounds to soil. However, recent research has shown that chlorinated hydrocarbons can undergo breakdown through action of soil microorganisms.

Apparently, microorganisms can adapt themselves to a pesticide. In one study, organisms were subjected to 2,4-D, and a lag period elapsed as the compound was slowly and then more rapidly attacked as the metabolizing organism develops.

Then, later additions of 2,4-D were more quickly decomposed.

There is some scientific controversy over how this adaptation develops--whether it is due to formation of enzymes or mutations. In any case, once an organism becomes able to break down a pesticide, it retains this ability for some time.

Do insecticide or herbicide chemicals affect microorganisms? At normal field applications, research shows, there is rarely any effect. In some cases, small quantities of pesticides actually stimulate microbial activity.

Another important factor in pesticide residues is sorption, or the process by which soil takes up and holds the chemical. Importance of sorption--adsorption or absorption--of molecules depends on the type of soil.

Organic residues disappear most quickly from sand, but develop strong bonds with clay, particles of which have charge sites on the surfaces. Pesticides which are taken up to these charged sites are adsorbed, and are thus inactivated.

However, molecules taken up in such a way are a constant source of the pesticide in the soil solution.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 23, 1965

To all counties

Immediate release "M"

IN BRIEF.....

Potato growers: Don't be too concerned if some small tomato-like fruits have developed from the flowers on your potato plants. This is a normal phenomenon on certain varieties in certain years, explains O. C. Turnquist, extension horticulturist at the University of Minnesota. Inside these seed balls are hundreds of seeds, and no two seeds are alike. Potato plants will grow from these seeds, but the resulting plants are usually inferior to the plants from which the seed balls came. Turnquist adds that these seed balls will not affect the yield or quality of potatoes, and that they will have no effect on nearby tomatoes.

\* \* \* \*

Remember! If you want a good alfalfa crop next year, don't cut or graze your alfalfa after September 1. Jim Justin, University of Minnesota extension agronomist, explains that every time alfalfa is cut, the plant starts regrowing by utilizing food reserves stored in the crown. If alfalfa is hit by a frost when these reserves are low, they will not be replenished that season. This means that the plant has a poor chance of getting started next spring. Also, by avoiding late cutting or grazing, the several inches of fall growth will help catch and hold snow, which serves as a good protective mulch.

\* \* \* \*

Fence wire is seldom damaged by hand stretching, but a tractor can damage both barbed and woven wire by pulling the wire too tight. Overstretching will cause the fence to loosen in warm weather. Also, too much stretch can cause breaks, damage corners and pull posts out of line on the contours or across ravines.

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 23, 1965

To all counties "M"  
ATT: Home Agents  
Immediate release

LEARN HOW  
TO SAVE  
AT SALES

Do some thinking, planning, comparing, and judging before rushing out to try to save at clothing sales.

Become familiar with sales types and sales terminology. Know when and why sales are held and which garments are the best buys at which sale. That suggestion comes from Thelma Baierl, extension clothing specialist at the University of Minnesota.

By anticipating clothing needs in advance, a family may be able to save about one-third to one-half by buying at sales, Miss Baierl says.

At clearance sales the savings might be from 25 to 50 percent on fashion items such as coats, dresses, shoes and hats. Annual sales for standard merchandise from most departments might average 10 to 15 percent savings. In any case, clothing you purchase at a sale should cost less than it would ordinarily, even when cost of reconditioning the garment is included.

Knowing what you really need and doing some advance planning are important for successful shopping at sales. Wise buying means keeping in mind the clothes on hand and the additions you need to complete your wardrobe.

When at the sale, consider the fit, the color, style and the condition of fashion merchandise. Often garments are on sale because they are extreme in styling or because they are no longer in fashion. The garment should be the right size, it should be cut on the grainline, and seams and hems should be adequate, with stitching strong and secure. Suitable, well sewed fastenings are among the signs of good garment construction.

Before deciding on your purchase, examine the garment label. The label will give clues to performance and durability. It should state fiber content and give information on shrinkage and color fastness as well as care.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 23, 1965

To all counties  
Immediate release

DUTCH ELM DISEASE  
TO FORCE LOCAL ACTION  
BY STATE'S COMMUNITIES

In a matter of years, many communities in Minnesota will be forced to decide what to do about their elm tree populations as the deadly Dutch elm disease continues its spread in the state.

The disease was first identified in Minnesota in 1961. Through 1964, 87 cases had been identified in Monticello, 11 in St. Paul, eight in Minneapolis and one in South St. Paul.

In Iowa, where the disease was spotted in 1957, spread has been so rapid that the rate of confirmed county infestation has increased each year. Through 1964, 60 of the state's 99 counties had reported infestations.

Herb Johnson, extension plant pathologist at the University of Minnesota, says that with Dutch elm disease on the way, the valuable elm trees which beautify many Minnesota communities may represent a liability as well as an asset.

-more-

add 1 - dutch elm disease

"It will cost money if no protective measures are taken and elm trees are allowed to die," he explains, "and it will also cost money to fight the disease with a sanitation and chemical protection program."

What it comes down to, Johnson says, is that city governments will be forced to choose from two alternatives: either remove the dead elms and replant a variety of species, or control the disease by sanitation and chemical protection.

"No community can forever follow a policy of doing nothing about Dutch elm disease," he says. "Dead elms will litter the streets and parks with falling branches, threatening life and property until they are removed. Also, property values will be reduced even further."

Based on the experiences of some midwestern cities, it has been shown that over a 10-year period, a sanitation and chemical protection program need cost only a little more than doing nothing except removing diseased trees as they die.

Such a protection program can save up to 80 percent of the elms, Johnson says, and the community can budget this program at a steady rate.

On the other hand, the cost of tree removal is small at the beginning when the disease is just starting, and at the end when only a few elms are left. But during the middle five of the 10 years, costs will be very high.

At the end of 10 years, it is believed that all unprotected elms surrounding an infected community will be dead. Therefore, the principal source of the disease inoculum would be nonexistent. When this occurs, sanitation practices must be continued, but chemical applications can likely be reduced.

While the possibility does exist that continued chemical protection and sanitation may be the only way to maintain protection after this period, there is also a possibility that a much lower cost type of control may be developed during this period.

For more information on Dutch elm disease and its control, the University has two publications available: Extension Folder 211, "The Dutch Elm Disease," and Special Report 14, "Dutch Elm Disease and Community Decisions."

Both are available from county agricultural agents or by writing to the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 23, 1965

To all counties  
4-H NEWS  
Immediate release

4-H'ERS TO HAVE  
HORSE SHOW

\_\_\_\_\_ County 4-H'ers enrolled in the horse project who won blue ribbons at the county fair are eligible to enter the regional horse show at \_\_\_\_\_.

The event is scheduled for Saturday, Sept. 18, at 10 a.m. on the fairgrounds.

4-H'ers participating are: (list names, addresses and 4-H clubs).

The show is planned to interest 4-H youth in good horsemanship and in competition for top awards, says Osgood Magnuson, assistant state 4-H club leader at the University of Minnesota.

All exhibitors may enter two classes: halter, to be shown by breeds, and performance, including horsemanship and pleasure. An exhibitor who has shown in one of the other classes may qualify for the third class, gymkhana. The latter will include the egg and spoon and the barrel race.

A trophy will be given to the top halter showman. Blue, red and white ribbons will be awarded to other participants.

Five regional horse shows are scheduled throughout Minnesota. Last year some 200 ribbon 4-H'ers were granted recognition in the horse project and were eligible for regional events. This year more 4-H'ers are expected to participate.

The public is invited to attend the shows.

-smk-

NOTE: The events will be held in Preston, for southeastern Minnesota; Slayton, for southwest; Cambridge, for central; Aitkin, for northeast and Barnesville for northwest.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 23, 1965

To all counties  
Immediate release

MORE LIME NEEDED  
ON ACID SOILS  
IN MINNESOTA

Minnesota farmers could profitably apply more lime to acid soils in parts of the state than they are now doing, according to soils scientists at the University of Minnesota.

Bob Munter, junior scientist in the Department of Soil Science, feels that liming has been seriously neglected in the state, particularly with the increased use of fertilizers.

"In a good soil management program on acid soils," he says, "liming should be the number one step. It is impossible to expect maximum net returns unless this need for lime is satisfied."

According to Munter, liming has to be looked at as a long-term investment. With fertilizers, the results are quick and spectacular. Lime, on the other hand, works slower and results are spread out over several years.

"Fertilizers have sold themselves to such a great extent that lime has been almost forgotten about," he says. "Actually, these two materials compliment each other and should be considered together for an effective fertility program."

Munter points out, however, that over-liming can be more of a problem than under-liming; thus the need for taking a good representative soil sample and having a reliable pH test run to determine the degree of acidity.

With the pH test results and a knowledge of soil type, county agricultural agents can proceed to make lime recommendations.

For more information on liming, ask your county agent for a copy of Extension Folder 210 titled "Liming Minnesota Soils." Copies of this folder are also available from the Bulletin Room, University of Minnesota, St. Paul, Minn. 55101.

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 23, 1965

To all counties

Immediate release

ANNUAL SHEEP DAY  
SET FOR SEPT. 11  
AT LE CENTER

The Southern Minnesota Sheep Growers Association will host its 15th annual Sheep Day Saturday, Sept. 11 at the Fairgrounds in Le Center.

Highlights of the event this year, according to Le Sueur County Agricultural Agent Bob Leary, include a sheep show, a judging contest and an educational program.

The day-long program will begin at 9 a.m. with an FFA and 4-H judging contest. Judged will be two classes of purebred rams, two classes of purebred ewes and one class of commercial ewes.

According to Leary, premiums will include a trophy for the top team, ribbons for the top five teams and \$1 to \$5 cash prizes to the top five individuals.

The special educational program at 10:30 a.m. will be followed by a noon "Lunch Wagon" where lamb will be served. Afternoon events include the sheep show at 1 p.m. and special and door prize drawings at 3 p.m.

Since it is possible to purchase breeding stock by private treaty at the Sheep Day, Leary reminds sheepmen that this might be an opportune time to buy good rams and breeding ewes.

For more information, including an official entry blank, write to Bob Leary, County Agent, Le Center, Minn. Le Center is located 55 miles southwest of the Twin Cities and 28 miles northeast of Mankato on Highway 99.

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 30, 1965

To all counties  
Immediate release

IN BRIEF.....

Fall Field Days: Dates have been announced for the fall Corn and Soybean Field Days, held each year at four of the University of Minnesota branch experiment stations. The schedule this year is as follows: Sept. 14 at the Southwest Experiment Station in Lamberton; Sept. 15 at the Southern School and Experiment Station in Waseca; Sept. 17 at the West Central School and Experiment Station in Morris; and Sept. 21 at the Agricultural Experiment Station near Rosemount. Major attractions this year include corn hybrid and soybean variety performance trials, fertilization, tillage practices and weed control. Each field day will also feature tours of experiment plots.

\* \* \* \*

Poultrymen! If you haven't vaccinated your flocks for Newcastle disease, bronchitis and pox, you can still do so before the birds are housed this fall. But heed this warning from Dr. John M. Higbee, head of the University of Minnesota Department of Veterinary Diagnostic Laboratories. He warns that laying flocks should not be exposed to vaccinated birds. Susceptible birds that come in contact with the respiratory viruses may have an unfavorable reaction and drop in production.

\* \* \* \*

Fall is a good time to apply lime in areas of acid soils, says Lowell Hanson, extension soil specialist at the University of Minnesota. He explains that in the fall, the lime has plenty of time to "sweeten" the soil before next spring. And you can avoid many spreading problems usually associated with soft fields. The best way to determine whether or not a field needs lime and in what amount, is by testing the soil. Ask your county agent for more information on soil testing and the need for lime.

\* \* \* \*

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 30, 1965

To all counties  
Immediate release

UM ECONOMISTS SEE  
FAVORABLE OUTLOOK  
FOR BEEF IN 1966

A review of current beef cattle trends by agricultural economists at the University of Minnesota has resulted in several suggestions which may help cattlemen with their marketing decisions during the coming months.

Extension economists Paul Hasbargen and Kenneth Egertson base the following suggestions on the present cattle situation and outlook:

1. Continue carrying cattle to an average choice finish for the next few weeks, but watch markets closely and consider marketing at lighter weights and lower finishes before marketings build up too much in September and October.

2. In view of the tight feeder cattle situation developing for this fall, consider buying your replacements now and cheapening them on late summer pastures. Don't bank on much decline from present feeder price levels.

3. Because of new government grading standards which allow animals to grade choice at lighter weights with less finish, you might consider selling on a grade and yield basis if you wish to move some lighter weight animals and want to be assured that you are paid according to the new standards. These standards mean that cattle which used to grade high-good should now grade low-choice.

The economists point out that for the first time since 1958, quarterly fed cattle marketings dropped below year ago levels during the second quarter of 1965. Marketings out of feed lots were two percent below levels a year earlier.

This decrease in marketings, coupled with the lower average slaughter weights, pushed Chicago choice steer prices to over \$27.50 in late June. However, decreased margins to packers resulting from this high farm price relative to wholesale beef prices put downward pressure on farm prices during the month of July.

add 1 - beef outlook

August prices moved up somewhat as supplies of both beef and pork remained relatively low.

The economists expect market prices to be tending downward through September and October. In contrast to a year ago when marketings slipped lower during September and October, fed cattle marketings this year will be increasing slightly during the same two-month period.

Prices should remain above levels a year ago, they say, but if marketings are bunched in October, this could be the lowest price month of the coming 12-month period.

In general, the trend of beef prices should be up during the November through February period. This is due to an expected decrease in the slaughter of non-fed beef as well as seasonally rising pork prices which would exert increasing upward pressure on fed beef prices after the first of the year.

If average marketing weights do not increase too much, prices next spring will be somewhat higher than those the spring before. Provided, also, that the high rates of placements and slaughter continue all winter and that ranchers hold a larger number of heifers for replacements.

The number of available steers and heifers to be placed on feed is estimated to be about the same as a year ago. And starting next summer, the total supply of lightweight feeders should be less than sufficient to provide enough feeders for slaughter requirements at steady prices.

As a result, the economists expect feeder calf prices as well as yearling prices to remain high throughout the coming year.

Prices of both yearlings and calves will, of course, depend in part on fed cattle price movements this fall. But with ranges in such excellent condition, it is probable that supplies will not be forthcoming at prices much lower than current levels until late fall since movements of lighter weight animals will be later than usual this year.

# # # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101

To all counties  
4-H NEWS  
Immediate release

#### 4-H FILLERS

More than 350,000 men and women in the United States serve as 4-H adult leaders. These 4-H leaders are guided and supported by professional staff of county, state and federal extension workers.

\* \* \* \*

During National 4-H Club Week, Sept. 25 - Oct. 2, 55,000 Minnesota 4-H'ers will express their gratitude to the 12,500 men and women serving as volunteer adult leaders in the 2,100 Minnesota 4-H clubs.

\* \* \* \*

Project work is the heart of the 4-H program. From a wide variety of offerings, 4-H members choose projects which meet their needs and interests. In Minnesota 22,098 members enrolled in the foods project, 20,047 in the livestock project, 17,323 in the clothing project, 11,539 in the junior leadership project and 10,717 in the home improvement-family living project.

\* \* \* \*

On the average for every 4-H adult project leader in Minnesota there are 13.5 members enrolled in the foods project, 10 members in the livestock project, 10 members in the clothing project and 17 members in the home improvement-family living project.

\* \* \* \*

4-H projects are geared to meet the interests and needs of boys and girls between the ages of 9 to 19. New, fast-growing projects include dog care and training, entomology, horse, photography and career exploration.

\* \* \* \*

Membership in the 4-H program in the United States has grown from less than half a million in 1923 to nearly 2½ million.

\* \* \* \*

4-H began in Minnesota in 1913 with 824 members enrolled. Today, 52 years later, the enrollment is 54,357 members. The membership is 71 percent rural, 17 percent rural nonfarm and 12 percent urban. Over the entire United States about 46 percent of the 4-H members live on farms, 32 percent in rural nonfarm homes and 22 percent in urban areas.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 555101  
August 30, 1965

To all counties  
Immediate release

DISTRIBUTION POLICIES  
FOR NEW CROP VARIETIES  
OUTLINED BY UM COMMITTEE

Policies for the distribution of 10 new varieties of oat, soybean, barley and wheat seed have been outlined by the Seed Distribution Committee of the University of Minnesota Agricultural Experiment Station.

The new varieties, according to committee secretary Carl Borgeson, are Brave, Clintland-64, Tippecanoe and Santee oats; Chippewa-64, Traverse, A-100 and Lindarin-63 soybeans; Dickson barley; and Chris wheat.

They were produced this year by Minnesota growers under a Memorandum of Agreement with the Experiment Station, which distributed seed last spring in cooperation with county seed distribution committees, the Minnesota Approved Seed Processors Association and the Minnesota Seed Dealers Association.

Policies for the distribution of Dickson barley differ from those of the other varieties because of a limited seed supply last spring.

add 1 - distribution policies

The policies, then, for all varieties except Dickson barley are as follows:

1. Recall of seed -- None of the seed will be recalled or re-distributed by the Experiment Station. Those interested in registered or certified seed may obtain it directly from growers in their county or other counties.

2. Maximum prices -- No maximum prices will be set. The varieties involved are not considered to be in short supply and this should govern the prices that can be charged.

3. Release dates -- Growers are to reserve 90 percent of their crop for other growers in Minnesota until the following dates: Nov. 1, 1965 for certified small grain seed; Dec. 1, 1965 for registered small grain and certified soybean seed; and Jan. 1, 1966 for registered soybean seed. The committee recommends that certified seed growers be given preference in the sale of registered seed.

4. Seed certification -- Growers must make every effort to complete certification of all new varieties released in 1965. Failure to comply means a violation of the Memorandum of Agreement.

In the case of Dickson barley, re-distribution of seed may be made as follows if the County Seed Distribution Committee considers it necessary.

The grower may retain 10 percent of the seed. The remaining 90 percent is to be made available to the local County Seed Distribution Committee, the Minnesota Approved Seed Processors Association, and the Minnesota Seed Dealers Association.

These committees and organizations have until Dec. 1 this year to re-distribute the seed. After that date, any seed remaining may be sold elsewhere by the grower.

No maximum price for Dickson will be set, but growers are urged to make the seed available to other growers in their counties through the county committees at a reasonable price.

According to the Memorandum of Agreement, certification of Dickson barley seed is to be completed by Dec. 1, 1965.

The Seed Directory, published by the Minnesota Crop Improvement Association and listing the names of the growers, will be available Sept. 20 from the offices of the local county agricultural agents or from the main Crop Improvement Association office on the St. Paul Campus of the University of Minnesota.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 3, 1965

To all counties  
Immediate release

HEARING SET SEPT. 28  
TO CONSIDER CHRISTMAS  
TREE GRADES, STANDARDS

A hearing for considering proposed grades for decorative forest products has been set by Minnesota Commissioner of Agriculture Russell G. Schwandt for 1 p.m. Tuesday, Sept. 28, in the State Office Building Auditorium in St. Paul.

The hearing is in accordance with a 1965 Minnesota Statute authorizing the Agriculture Commissioner to establish grades on all produce and to provide for inspecting and grading produce.

According to Marvin Smith, extension forester at the University of Minnesota, the "decorative forest products" for which state grades will be considered at the hearing are limited to Christmas trees.

The grades which the Minnesota Department of Agriculture will propose are identical to the U. S. grades effective since June of 1962.

Smith adds, however, that full consideration will be given to any different or additional grades proposed by industry representatives present at the hearing.

Adoption of state Christmas tree grades is necessary in order to comply with legal requirements by which the Department of Agriculture may offer state-federal grading service for Christmas trees under a revision of the law by the 1965 Legislature.

Smith says that anyone who has an interest in Minnesota's Christmas Tree industry is urged to take part in the Sept. 28 hearing.

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 3, 1965

To all counties  
Immediate release

UM PROF STRESSES  
NEED FOR GOOD  
SOIL SAMPLES

It should go without saying that soil test results can only be as accurate as the samples on which the tests are made.

And according to John Grava, associate professor of soil science at the University of Minnesota, the key to a good soil sample is that it be truly representative of the area from which it is taken.

He explains that since soils not only vary from field to field, but even from place to place within the same field, it is impossible to make general recommendations for the soils of each area.

Soils, he says, vary greatly in their ability to supply plant food to crops, and they differ in their origin, their development, the crops grown on them and their lime and fertilizer needs.

add 1 - soil samples

Grava lists several steps that should be followed in order to get a sample that is representative of the field being tested:

Divide each field into uniform areas. Make sure each area you select has the same texture, cropping history and past fertilizer treatment.

Avoid--or sample separately--low spots, dead and back furrows, old straw piles, terraces and fence rows and fertilizer bands.

Sample each area separately. Scrape away the grass and litter. Take a core slice of soil from the surface to plow depth. On permanent pastures and fields in sod, sample only three inches deep. Put the core or slice in a clean pail.

Repeat the sampling in 15 to 20 places and mix the soil. Then fill the sample box or a pint container--that's all it takes--and you have a composite sample. Label each container with the sample number and your name and address. Keep a record of where you took samples.

Fill out the information sheet as completely as possible. The State Soil Laboratory and the county agent need this information to make lime and fertilizer recommendations.

If the soil is wet, don't dry it on a stove or in an oven. Let it air dry or mail it immediately to the laboratory, together with the information sheet and an envelope containing the payment.

Mail to the Soil Testing Laboratory, Department of Soil Science, University of Minnesota, St. Paul, Minn. 55101.

For more information on soil sampling and testing, consult your county agricultural agent. Ask him for a copy of Soils Fact Sheet No. 4, "How to Take A Good Soil Sample."

Copies are also available from the Bulletin Room, University of Minnesota, St. Paul, Minn. 55101.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 3, 1965

To all counties M'  
Immediate release

IN BRJEF.....

Brand registration: Brands and marks for cattle, horses, sheep and mules are no longer to be registered with the County Register of Deeds. Dr. Ray Solac, extension veterinarian at the University of Minnesota, explains that the livestock sanitary board will register brands and publish a state-wide brand book.

\* \* \* \*

Don't be too alarmed if your evergreens are looking a little sick this time of year. It may be a simple case of old age--for the needles, that is. Herb Johnson, extension plant pathologist at the University of Minnesota, explains that in late summer and early fall, the older needles toward the center of the trees mature. And it's a normal process for them to die and drop off. After the needles have dropped, the trees will look normal and healthy again, provided that the needles toward the center of the trees are the ones that are dropping off. If the needles at the ends of the branches are dying, you may have a problem.

\* \* \* \*

Bull Rental: Anyone regularly renting three or more bulls must obtain a license and each bull must be registered with the State Livestock Sanitary Board. Dr. Ray Solac, extension veterinarian at the University of Minnesota, says that this act, which is concerned with health requirements, becomes effective Jan. 1, 1966.

\* \* \* \*

It's often a good idea to use a light mulch around newly planted trees and shrubs during their first winter, according to Gus Hard, University of Minnesota extension horticulturist. A mulch helps prevent deep freezing of the soil and also helps delay freezing so that roots will develop later in the fall.

\* \* \* \*

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 3, 1965

To all counties "M"  
ATT: Home Agents  
Immediate release

CAN 'EM TO PRESERVE  
GARDEN FRESH FLAVOR

When canning tomatoes or tomato juice, choose sound ripe tomatoes and check processing time recommended for Minnesota to enjoy the right-from-the-garden flavor throughout the year.

In Minnesota, organisms associated with tomatoes are more difficult to destroy; therefore a longer processing time is recommended. But the vitamin C content is not destroyed by the longer processing because the food is heated in the absence of air.

Two methods of processing are acceptable in Minnesota - the raw pack or the hot pack method. Even though tomatoes are somewhat acid they should be processed in the hot water bath, says Verna Mikesh, extension nutritionist at the University of Minnesota. Open kettle canning is not recommended.

The raw pack method is quick and easy. After removing skins and cores, press the tomatoes down gently into jars. Add one teaspoon salt per quart. Because tomatoes shrink considerably, pack to  $\frac{1}{2}$  inch of the top of the jar. Process in the boiling water bath 40 minutes for pint jars and 50 minutes for quart jars.

To assure your jars of being filled after processing you may want to use the hot pack method instead. Heat tomatoes gently in their own juice and bring to a boil. Put the heated tomatoes and juice in jars, filling to  $\frac{1}{2}$  inch from the top. Add one teaspoon salt per quart, and process in the boiling water bath for 35 minutes for pints and 45 minutes for quarts. Jars will then be filled as tomatoes have shrunk upon heating before placing in jars.

When processing tomato juice, you need not peel the vegetable. After cooking tomatoes gently until soft, put the tomatoes through a strainer and add one teaspoon salt per quart. Reheat the juice until just boiling. Fill jars to  $\frac{1}{2}$  inch of the top, carefully wipe jar rims and adjust lids. Process in boiling water bath for 35 minutes for both pints and quarts.

Homemade tomato juice separates when stored because the particles will not hold in suspension throughout the liquid. Before serving, shake or stir the juice.

Extension Folder 100, Home Canning of Fruits and Vegetables, available at county extension offices, gives directions and time tables for processing tomatoes.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 13, 1965

To all counties "M"  
ATT: HOME AGENTS  
Immediate release

TEMPT APPETITES  
BY VARYING  
BREAKFAST MENUS

How's breakfast at your house? Non-existent, skimpy, hurried?

In that case, you're ignoring some of the important findings of medical scientists--that starting the day with a good breakfast is one of the keys to mental alertness, productivity and efficiency, whether you're a student, a homemaker, a professional person or a factory worker.

And if that last wink of sleep means more to some of the family than taking time for breakfast, extension nutritionists at the University of Minnesota say that perhaps the solution is to wake up sluggish appetites with imaginative and different menus.

add 1 - better breakfast

Since September is "Better Breakfast Month," why not start now to add some sparkle to your breakfast menus? With a little imagination, some advance planning and use of convenience foods, you can make a quick yet interesting breakfast that will encourage late sleepers to eat a meal before dashing off to school or the office.

How can you improve the breakfast at your house? The University nutritionists give a three-point test you can use: 1) A good breakfast gives you protein, vitamins and minerals needed to repair and build the body and keep you healthy. 2) It provides fuel for body energy. 3) It tastes good.

Here are some general breakfast patterns you can follow, from light to hearty: fruit (preferably citrus), cereal or bread, milk to drink, other beverage if desired; fruit, cereal or bread or both, egg, beverage; fruit, cereal or bread or both, eggs with meat, beverage.

If you're in the habit of serving frozen concentrated orange juice each morning, your family may appreciate a combination of two different juices for variety, such as apricot and orange, or a bowl of fruit in season or a wedge of cantaloupe. Among foods that can be prepared quickly to vary the menu are ready-to-eat or quick-cooking cereals topped with fruit; pre-cooked sausage or ham that can be heated in a few minutes; ready-to-eat muffins, brown 'n' serve rolls or various breads from the bakery. Packaged mixes can come to your aid in making a wide range of hot breads.

There's no rule on how big a good breakfast should be. For most people, and particularly for children, it's good planning to have a fourth of the day's calories at breakfast and to include such protein as eggs, meat or milk. Because breakfast literally breaks a fast of 12 to 14 hours, the nutritionists say it's an important meal of the day.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 13, 1965

To all counties

Immediate release " 111"

IN BRIEF.....

Mushrooms that appear in lawns following a rain are the fruiting bodies of fungi that are growing on organic matter in the soil, or on buried wood such as tree roots. Herb Johnson, extension plant pathologist at the University of Minnesota, explains that the mushrooms growing in the soil can often be controlled with chemical treatment. But those growing on wood will usually persist until the wood is removed or decomposed. For further information on controlling these mushrooms, ask your county agent for Extension Folder 165, "The Home Lawn." Copies are also available from the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

\* \* \* \*

Fencing Guide Available: If you're planning to build or repair fences around your farm this fall, you might be interested in a publication by the University of Minnesota Agricultural Extension Service. Titled "Building Better Farm Fences," Extension Bulletin 272 can be obtained from the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101. This publication covers a wide range of topics on fencing, ranging from how to set corner posts to choosing the proper staples.

\* \* \* \*

Leaf spots have been showing up on Alpine Currant again this season causing many leaves to fall from these bushes. This disease has been common in Minnesota for several reasons now, reports Herb Johnson, University of Minnesota extension plant pathologist. The spots are generally less than one-eighth inch in diameter and many of them are likely to occur on individual leaves. Leaf spot can be controlled by spraying with a fungicide early in the season--during May and June. Effective fungicides include Phaltan, Zineb, Captan and Ferbam.

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 13, 1965

To all counties  
4-H NEWS  
Immediate release  
(Poster mats enclosed)

4-H'ERS CONTRIBUTE  
TO BETTER COMMUNITIES

"And my hands to better service . . . for my community" is a part of the 4-H pledge that some 55,000 4-H'ers in Minnesota practice through their 4-H club work.

Throughout the year 4-H clubs in Minnesota stress citizenship through interest and participation in community activities.

During National 4-H Club Week, September 25-October 2, many clubs will review contributions they have made to their communities and set goals for greater service.

Among the objectives of National 4-H Club Week are increasing public understanding of 4-H aims and methods and expanding support for activities throughout the year. Through constructive use of leisure time, 4-H'ers are working with other groups to improve their communities. Given below are some illustrations of some of the service projects of 4-H clubs.

Throughout the past year Sherburne County 4-H'ers planted thousands of trees for nurseries, Christmas tree farms and windbreaks. The Baldwin Livewires 4-H Club, state conservation club of the year, cleaned up litter, trapped gophers, marked poison ivy plants and tested soil in the Sand Dunes State Forest.

add 1 - citizenship

Martin County 4-H'ers, state safety award winners, worked for continuous improvement in safety in their community. Their activities included inspection and repair of bicycles, home and farm hazard hunts, purchases of first aid kits for each family car, attic and storeroom clean-up campaigns and tagging Christmas trees with safety reminders.

Ten counties were honored on the state level for health activities requiring 4-H'ers to have annual physical and dental checkups and immunizations shots. The clubs stressed nutritious diets, good posture and personal cleanliness.

Community service projects by the 10 clubs included making tray favors for patients in nursing homes and local hospitals, sending gifts to senior citizens, shut-ins and patients in state hospitals, collecting clothing for the needy, making baby clothes for an Indian mission in northern Minnesota, contributing to major fund drives, helping with blood donor drives and conducting rat and mouse control campaigns.

With the idea of making their community a safer place to live, 35 Benton County 4-H members checked cars for safety, featured speakers and movies on highway safety and efficient operation of automobiles.

Clay, Lac qui Parle, Renville, Freeborn and Itasca counties won state honors for activities in safety and fire prevention. 4-H'ers participated in cutting down corn at blind crossroads to improve visibility, painting top and bottom basement steps white in member's homes to prevent falls, reflectorizing machinery and bicycles and encouraging fire drills in homes.

4-H'ers who are selected for State 4-H Conservation Camp at Itasca State Park have done such work in their projects as establishing a roadside park, aiding with a fire prevention campaign, making a nature trail and assisting in renovation of a showy lady slipper path. Others helped with a national Audubon bird census and put into practice a program of grass waterways, planting windbreaks and digging drainage ditches.

-smk-

NOTE: Substitute activities of your own counties.

Department of Information  
and Agricultural Journalism  
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University of Minnesota  
St. Paul, Minnesota 55101  
September 13, 1965

To all counties  
Immediate release

HUNTING, FORESTRY  
MANAGEMENT LINKED  
IN PARK MANAGEMENT

Hunting seasons in a public park seem to be an important part of forest management. Evidence for this comes from a "deer exclosure" study in Itasca State Park.

Wildlife biologist William Marshall from the University of Minnesota last week explained the study to a group of county extension agents at the Lake Itasca Forestry and Biological Station.

The exclosure is a one-and-a-half acre surrounded by deer-proof fence built in 1937. One kind of evidence this exclosure gives is that keeping deer numbers down can protect and help maintain such trees as white, red and jack pines. The difference is especially important in a park where vegetation is a major attraction to visitors.

Another kind of evidence comes from the history of hunting and what has happened to certain plants in the rest of Itasca Park since hunting began there.

add 1 - hunting, forestry management

Itasca park was made a refuge in 1895, and no hunting was allowed there for the next 50 years. The deer population during that time built up to extremely high levels, reaching about 40 per section in 1935, 75 in 1939 and 80 in 1942.

During these years there were large losses of deer due to winter starvation, which dropped deer numbers to 45 per section.

In 1945 the park was open to hunting and some 4,600 hunters took more than 2,000 deer, almost eliminating the deer population in that particular year.

Hunting continued in subsequent years, and the deer population has thus been kept at low levels--nowhere near those of the 1930's.

The enclosure was set up in 1937, and by 1946 this protected area had nearly 600 small white pine and 19 red pines over six inches high per acre, from natural seeding. Meanwhile the area outside the enclosure had no white and red pine re-production at all.

With the reduction of the deer herd, the outside area gradually showed an increase in pine growth. There were 57 white pines and 35 red pines per acre by 1951. These numbers increased until there was a high of 423 white pines and 125 red pines per acre in 1957.

Numbers inside the enclosure were even greater, because the deer had been kept out nine years longer. But inside the enclosure, numbers have been declining in recent years.

One of the explanations, Marshall says, is that complete fire protection leads to an eventual replacement of pines by hardwoods in many areas of Minnesota. Nevertheless, the importance of controlling the deer population in terms of maintaining scenic vegetation is clear.

An excessively high deer population is detrimental to both the forest and to the health and survival of the deer herd itself.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
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St. Paul, Minnesota 55101  
September 13, 1965

To all counties  
Immediate release

NARROW ROWS  
OFFER INCREASED  
SOYBEAN YIELD

Minnesota farmers interested in increasing soybean yields might consider row spacings narrower than the conventional 40 inches.

Considerable evidence accumulated from experimental and "on-the-farm" studies by the University of Minnesota shows narrow rows actually do increase soybean yields. The question remaining was how much of an increase could be expected.

R. L. Cooper, research associate, and J. W. Lambert, professor, in the University's Department of Agronomy and Plant Genetics recently completed a series of row spacing studies to attempt to answer this question.

The studies were conducted in 1963 and 1964 at various locations in Minnesota with experimental plots seeded at different dates in order to gain an overall indication of yield increases. Plots were harvested with a combine so that yields would be comparable to those obtained under general farm conditions.

Yields were consistently higher in narrow-spaced (22- or 24-inch) rows than in wide-spaced (40-inch) rows over all varieties, dates and locations. The percentage increase from narrow-spaced rows was greater for earlier varieties or when planting was delayed. However, the maximum total yield was obtained with the latest variety (Chippewa), the narrower spacing (24-inch) and the earliest planting (late May).

add 1 - narrow rows for soybeans

Cooper and Lambert concluded that yield increases from narrow rows were great enough to be of economic importance. Narrow row plantings when averaged over all varieties and dates showed yield increases of 5.9 bushels per acre in 1963 and 5.1 bushels per acre in 1964 above yields for wide-spaced plantings. Soybean yields from the narrow rows averaged 23 and 24 percent above yields from wide-spaced rows in 1963 and 1964.

Researchers point out, however, that farmers must consider certain other factors before changing to narrow row plantings. Harley Otto, extension agronomist, and Paul Hasbargen, extension economist, at the University of Minnesota point out that other factors must also be considered.

Additional costs of switching to narrow rows should be estimated and compared with the expected increase in returns. Using machinery, herbicide, seed and labor costs estimated by University of Illinois agricultural economists, Otto and Hasbargen say the change from new four-row equipment (40-inch) to new six-row (30-inch) equipment would add \$4.67 in costs per acre for soybeans. This assumes that part of the cost of new machinery is charged to corn production.

To cover this added cost, farmers would need a two bushel increase in average yield. Also, if small yield increases are expected, a fairly large acreage is needed to justify switching.

Most Minnesota farmers use the same row width for all row crops. Thus, the switch to narrow rows for soybeans has been limited by the width of corn rows. Change has been held up because of the lack of suitable harvesting machinery, but several machinery companies are now marketing harvesting machinery for grain corn produced in 30-inch rows.

Other factors to be considered before changing to narrow rows include the present condition of available machinery and present production practices.

Otto and Hasbargen point out that a grower producing at a low yield level should consider improving the fertility of his land, practicing better weed control and choosing better varieties before investing in new machinery for narrow row production.

The research by Cooper and Lambert, as well as the studies by Otto and Hasbargen were reported in the recent issue of Minnesota Farm and Home Science, a publication of the University Agricultural Experiment Station.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 20, 1965

To all counties <sup>"M"</sup>  
ATT: HOME AGENTS

APPLES HEAD LIST  
OF PLENTIFULS  
IN OCTOBER

Markets during October will be brimming with harvest abundance to help homemakers plan heartier menus for crisp autumn days.

Apples head the U. S. Department of Agriculture's list of plentiful foods, closely followed by broiler-fryers, turkey, cheese, rice, onions, shelled pecans, dried prunes and frozen concentrated orange juice.

This year's apple crop is 6 percent above average. Jonathan, Wealthy, Red Delicious and McIntosh are the varieties most widely available at present. For home use, apples keep best in the refrigerator in perforated polyethylene bags.

October marketings of both broiler-fryers and turkey are expected to be greater than last year. Since poultry prices typically reach their low point of the year during the last three months, look for frequent specials on turkey and chicken, suggests Mary Ryan, extension consumer marketing specialist at the University of Minnesota.

Plentiful cheese and rice provide the makings of many casserole dishes. And for an easy, ever popular dessert serve an assortment of cheeses with apples, grapes and other fresh fruits.

You can count on both dried prunes and concentrated orange juice--both good breakfast starters--to be reasonably priced. Production of dried prunes is up 5,000 tons over 1964 and stocks of frozen concentrated orange juice are still high.

Good news to the woman who likes to bake is the heavy supply of shelled pecans selling at moderate prices.

Don't forget onions to give zest to fall meals. The late summer crop is at an all-time high. Homegrown red and russet potatoes, squash, cabbage, tomatoes, green peppers and carrots are other abundant vegetables that will add variety to autumn menus.

Department of Information  
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Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 20, 1965

To all counties

4-H NEWS

PROJECTS BASIC  
TO 4-H PROGRAM

Minnesota 4-H'ers are "learning by doing" and learning for living through their 4-H projects.

"The project is one of the important aspects of the 4-H program," says Evelyn Harne, associate state 4-H club leader at the University of Minnesota.

"It is the piece of work or study the 4-H member chooses to suit his own likes, interests, needs and home situation."

Today's projects are geared for boys and girls in town as well as country, Miss Harne points out. The science aspect is being emphasized in many projects. Many of the projects are divided into beginner, junior and advanced phases.

An example of a project in which members gain some practical experience and know-how is foods. The foods project enrolls the highest number of 4-H'ers in

add 1 - projects basic to 4-H

Minnesota. More than 23,000 girls are learning to prepare creative foods, snacks, lunches, picnics and family meals.

Some 20,000 boys and girls are enrolled in the livestock projects, which include dairy, beef, sheep, swine, rabbit, poultry, pleasure horse and dog care and training. Most popular of these projects is dairy. However, enrollment in the dog care and pleasure horse projects has increased sharply in the past year.

Learning to make their own clothing has a fascination for girls, as is indicated by the number of girls taking clothing--more than 17,000 in Minnesota. For many girls the climax in this project comes as they are selected for the county or state dress revue where they model an outfit they have made.

Another choice for girls is home improvement-family living in which they concern themselves with various housekeeping tasks, refurnishing a room, making purchases and taking care of children. This past year some 10,000 4-H'ers were enrolled in this project.

A number of projects are especially tailored for boys with a mechanical bent. Among these are automotive, electric, shop and tractor.

Outdoor projects are concerned with plant and soil science, with conservation, entomology and forestry. Horticulture projects have recently been reorganized into fruit, flower gardening, indoor gardening, lawns and landscape design, vegetable gardening and potato growing phases.

Such projects as health, safety and junior leadership appeal to many young people. Junior leadership has special interests for older 4-H members who enjoy helping leaders in the club as well as younger members.

During National 4-H Week, Sept. 25-Oct. 2, boys and girls between 9 and 19 who are not 4-H members but who are interested in "learning by doing" are invited to join a neighborhood 4-H club. See your county extension office for information about the club nearest you.

Department of Information  
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University of Minnesota  
St. Paul, Minnesota 55101  
September 20, 1965

To all counties  
Immediate release

pm

IN BRIEF.....

Nitrogen contents: Because nitrogen contents differ, comparing price differences per ton is not much help. Curt Overdahl, extension soils specialist at the University of Minnesota, gives a simple formula to convert price per ton to price per pound of nitrogen. Multiply the percent of nitrogen times 20. Divide this number into the price per ton. The result is the price per pound of nitrogen.

\* \* \* \*

Compost pile: Prepare a compost pile this fall season to insure a source of organic matter for spring gardens advises Gus Hard, extension horticulturist at the University of Minnesota. Put organic matter in a four-foot square. For each six-inch layer of leaves, add about one inch of soil. Along with the soil, mix two or three pounds of a complete fertilizer. Keep the center of the pile lower than edges and water occasionally.

\* \* \* \*

Fencing guide: A special bulletin prepared by the School of Forestry and Lakes States Experiment Station is recommended by John Neetzel, research associate at the University of Minnesota, for information on building and repairing fences. Copies are available from your county agent or from the Bulletin Room, University of Minnesota, St. Paul, Minn. 55101.

\* \* \* \*

Topdressing alfalfa: Alfalfa growers should topdress established stands of alfalfa as soon as possible this fall. Curt Overdahl, extension soils specialist at the University of Minnesota, says experiments show additional topdressing increases yields and reduces winter kill even on soils which have been well-fertilized at seeding time.

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 20, 1965

To all counties  
Immediate release

ALFALFA STANDS  
REQUIRE HIGH  
POTASSIUM LEVELS

Growing alfalfa successfully requires soils naturally high in potassium or high potash fertilizer applications.

Curtis Overdahl, extension soils specialist at the University of Minnesota, reports considerable evidence shows adequate potassium levels are often overlooked when attempting to grow high yields and long-term alfalfa stands.

Overdahl says sandy soils testing low in potassium generally prevail in Minnesota north and east of a line from the Twin Cities to Alexandria. Tests in southeast Minnesota also indicate inadequate potassium levels on several fields. Treatments much above ordinary levels have shown surprising responses to potassium.

Experiments run for two years at two locations show that high rates of potassium at seeding time and topdressed later are necessary for most economical production. For long-term stands, farmers should topdress potassium annually or biannually.

add 1 - alfalfa stands require high potassium level

Experimental results that yield increases were highest when low potassium rates were applied at seeding time. With 240 pounds of  $K_2O$  topdressed after the last cutting of the previous year, alfalfa yields increased 1.5 tons per acre on plots given no seeding-time treatment. Yields rose 0.7 ton per acre on plots receiving 240 pounds per acre only at seeding time. Overdahl says conclusions about topdressing must wait until the experiment runs longer to establish results under different weather conditions.

Other considerations are important, says Overdahl. Lime rates have often been too low or neglected entirely and phosphorus deficiency lowers alfalfa yields.

Continuing experiments are attempting to determine necessary lime rates. Two-year test results show  $2\frac{1}{2}$  tons of lime increased yields .38 ton per acre and five tons of lime increased yields .8 ton per acre. These increases were from soils having a pH of 6.3 before lime treatment. Soil pH changed to 6.75 with the  $2\frac{1}{2}$  ton per acre lime application and pH was up to 7.0 with the five ton per acre treatment.

Most soils north and east of a line from the Twin Cities to Alexandria test high or very high in phosphorus. However, one experimental plot tested only medium-high. Annual treatments with 30 pounds of  $P_2O_5$  increased alfalfa yields .52 ton per acre per year during the two-year test period and treatments with 60 pounds of  $P_2O_5$  increased yields .74 ton per acre per year. In comparison, a plot testing very high, with 60 pounds of adsorbed phosphorus showed no response to identical rates of phosphorus over the two years. Results point up the value of fertilizers including both phosphorus and potassium for soils testing less than high.

Overdahl says other details are important for high yields. Soils with low organic matter content or borate deficiency should receive borated fertilizers every two or three years. Also, many soils in this area are extremely sulfur-deficient and farmers should consult with county agents to determine local conditions.

Alfalfa growers must also consider varietal selection, weed control and time of cutting. Early first cuttings result in higher quality alfalfa and increases chances of a third cutting. Cutting or grazing times must be watched for best production and prevention of winter kill.

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 20, 1965

To all counties  
Immediate release

TRENDS FOR  
FARM RECEIPTS  
AND EXPENSES

Farming operations in southern Minnesota have undergone great changes during the past 25 years.

T. R. Nodland and S. A. Engene, professors in the department of agricultural economics at the University of Minnesota, studied records kept by members of the Southwestern and Southeastern Minnesota Farm Management Services to trace the long-term trends.

Nodland and Engene note that these farmers are better than average managers, but that the changes and types of farms are typical of the area. Between 1940 and 1964, farm size increased about 15 percent for both groups. During this period, capital managed on a southwestern Minnesota farm increased from \$36,133

add 1 - trends for farm

to \$99,907 and the capital managed on a southeastern Minnesota farm rose from \$25,912 to \$60,984.

The large increase in cattle feeding in the southwestern area produced a striking change in livestock income. The value added by cattle feeding jumped from \$1,444 per farm in 1940 to \$8,562 in 1964.

Southeastern Minnesota farmers increased their emphasis on dairy cattle. The value added by dairy cattle rose from \$2,542 per farm in 1940 to \$8,265 in 1964. Poultry production decreased in both areas, but the value produced remained fairly constant.

In both areas, feed costs rose more rapidly than the value produced by livestock. Nodland and Engene say this was partly due to the shifts in kinds of livestock, but more to changing profit margins.

During this period, the value of crops produced became an increasingly large part of the total farm income in both areas. The increase was greatest in the southwestern area, where value of crops produced moved from 59 percent of total value produced in 1940-44 to 72 percent in 1960-64.

Power costs increased more rapidly than income from 1940 to 1964 in both areas. Total power costs accounted for about 10 percent of the total value produced in 1940-44, but about 15 percent in 1960-64.

Nodland and Engene indicate labor cost was the only cost that increased only modestly. Number of workers per farm fell from 2.2 in 1940 to 1.7 in 1964. Labor earnings--the amounts that would be left as salary to the farm operator if he paid hired man's wages for labor of other family members and the five percent interest on all capital used--were highest during the immediate postwar period of 1945-49.

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 27, 1965

To all counties

Immediate Release

IN BRIEF.....

Mushrooms: Often appearing in lawns after a rain, mushrooms are the fruiting bodies of fungi growing on organic matter in the soil, or on buried wood such as tree roots. Herb Johnson, extension plant pathologist at the University of Minnesota, says mushrooms growing in the soil can often be controlled with chemical treatment. Those growing on wood will usually persist until the wood is removed or decomposed. Ask your county agent for Extension Folder 165, "The Home Lawn,"

\* \* \* \*

Improved Pastures: Pastures improved with either manure, commercial fertilizer, or renovation were superior to control pastures in beef produced per acre, value of beef produced per acre, and number of steer days per acre, according to University of Minnesota researchers. Value of beef produced per acre over lime, fertilizer, tillage and seed costs averaged \$58.85 for nitrogen pastures, \$58.10 for renovated pastures, \$54.45 for manure pastures, and \$40.67 for control pastures in the four-year experiment.

\* \* \* \*

Timber Volume: Minnesota's timber volume increased nearly 34 million cords between 1953 and 1962 to total more than 124 million cords. Paul DeBald, forester at Lake States Forest Experiment Station, says trees reaching merchantable size in northern Minnesota account for much of the 37 percent increase.

\* \* \* \*

Liming Soils: A booklet on liming acid soils, Extension Folder 210, "Liming Minnesota Soils," is recommended by Lowell Hanson, extension soils specialist at the University of Minnesota. Get a copy from your county agent or write Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 27, 1965

To all counties " M"  
  
Immediate Release

STEERS PRODUCE  
GOOD GAINS WITH  
ALL-HAYLAGE RATION

Minnesota cattle feeders can expect steers to show good gains on all-haylage ration, according to research conducted at the University of Minnesota.

In the first-year phase of a four-year experiment, steers fed alfalfa-brome haylage from an airtight silo produced higher gains per day than haylage fed from a conventional concrete stave silo. Steers fed a grubicide gained slightly faster than those fed no grubicide, but zinc supplements did not influence feedlot performance.

Cattle fed haylage from the airtight silo gained significantly faster, consumed more haylage dry matter and required less haylage dry matter per 100 pounds of gain than those fed from the concrete stave silo. Haylage from the airtight silo produced 1.86 pounds per day gain, compared with 1.69 pounds per day gain from haylage stored in the concrete stave silo.

Researchers point out the higher gains were probably due to increased dry matter intakes for cattle fed from the airtight silo, since haylage from both silos supplied adequate nutrients.

## add 1--Gains On All-Haylage Ration

No spoilage was noted in the airtight silo and only 1,170 pounds, or about 1.4 percent of material ensiled was discarded as spoiled material from the concrete stave silo. Haylage from the airtight silo had slightly more protein and less fiber, though nutrient content of haylage for both silos was similar when ensiled.

Researchers say ensiling alfalfa as haylage is an excellent method of storing forage, because cattle consume more dry matter and nutrients than when silage is fed. Leaf loss with haylage is lower during harvesting. There is less risk of rain damage, thanks to shorter drying time. Forage put up as haylage should contain 45-55 percent moisture.

Interest in feeding zinc has increased since Purdue researchers reported that zinc additions improved gains for cattle fed a high concentrate ration. Grains are normally lower in zinc than roughages, but University of Minnesota researchers wanted to investigate the effects of adding zinc to high roughage rations.

For the first 14 days of the experiment, 100 mg. of zinc was fed per head daily, but results indicate feeding zinc had no effect on gains or feed consumption.

Feeding a grubicide for the first two weeks of the experiment appeared to improve gains, with the steers receiving the grubicide gaining 1.82 pounds per day, while those receiving no grubicide gained 1.74 pounds per day. Researchers point out that the differences are not significant and that the lower number of grubs in treated steers may explain the faster growth rate.

The experiment was conducted by R. D. Goodrich, assistant professor; J. C. Meiske, assistant professor; R. M. Jordan, professor; A. L. Harvey, professor; and O. E. Kolari, associate professor, of the Department of Animal Husbandry; and G. C. Marten, assistant professor in the Department of Agronomy and Plant Genetics.

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and Agricultural Journalism  
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University of Minnesota  
St. Paul, Minnesota 55101  
September 27, 1965

To all counties

Immediate Release

PARTICLE SIZE  
IN FORAGE RATIONS  
FOR DAIRY COWS

Smaller particle size in forage rations for dairy cows is creating considerable interest among farmers.

D. E. Otterby, dairy husbandry researcher at the University of Minnesota, says forage rations are more easily handled by automation if forage is ground to reduce particle size and then pelleted.

Grinding and pelleting of forage also reduces dust and prevents the animal from eating only the more desirable portions of the forage.

Automation of the feeding process means less work for the dairy farmer, but what happens in the cow's digestive system when pelleted forage is eaten? The reduced size of ground and pelleted forage rations means the forage may pass through the animal's digestive tract at a faster rate. Digestion time is reduced and digestibility is decreased to some degree.

Rumen fermentation is sometimes changed by reducing the particle size in forage rations. Rumination--the time an animal spends chewing a cud--is decreased because the smaller particles cause no abrasive action against the rumen wall to bring about regurgitation and further chewing. Reduced particle size in forage rations may also cause dairy cows to eat more forage.

add 1 -- Particle Size in Forage Rations

Some studies have found that grinding and pelleting of forage rations for dairy cows has increased milk production, while other studies have concluded milk production does not increase.

Feeding pelleted forage rations sometimes reduces the butterfat percentage in milk. This tendency may be offset, however, by feeding six to 10 pounds of long roughage with the pelleted forage.

Feeding dairy cows some sodium bicarbonate with the pelleted forage rations also tends to prevent part of the reduction in butterfat percentage. Further research at several research stations is being conducted to study the effects of sodium bicarbonate supplements in preventing butterfat reduction when dairy cows are fed pelleted forage rations.

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 27, 1965

To all counties <sup>11</sup> M<sup>11</sup>  
ATT: HOME AGENTS  
Immediate release

**BUY CHILDREN'S  
CLOTHES TO FIT**

Buy clothes that fit your child now -- not garments that are so large he has to grow into them.

Extension clothing specialists at the University of Minnesota say it's far wiser to buy fewer clothes that actually fit and which can be washed frequently than many garments that are too large.

At the same time, however, the clothing specialists suggest that mothers look for features that will adapt to a growing child. This year's fall and winter fashions fortunately have a number of built-in growth features. They include:

- . A-line styling with easy fit and no waistline.
- . Two-piece garments.
- . Raglan sleeves which will fit even as a child broadens.
- . Extra-large hems.
- . Expandable suspenders on boys' trousers.

Whenever possible, take a child with you to shop so he can try on the clothes you plan to buy. If that is not possible, be sure to have his height, weight, chest and waist measurements with you. More and more manufacturers are using the apparel standards from the U. S. Department of Commerce in sizing children's garments. So look for these measurements on the label. The child's age has little bearing on the size of the garment.

For satisfaction with the garments you buy, be sure to check the label for information on shrinkage, colorfastness and laundry care.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul 55101 -- Tel. 647-3205  
October 1, 1965

County Agent: This has been sent  
to daily newspapers and radio  
stations.

Immediate release

## HANDLING FROST-KILLED CORN AND SOYBEANS

The freeze of September 25 killed much of Minnesota's corn and soybeans. And farmers are now faced with the problem of how to handle the crops to get the most value.

James Justin and Harley Otto, extension agronomists at the University of Minnesota, say crop maturity should be the primary factor in deciding how to handle these crops.

Corn which was fully dented and losing moisture at the time of freeze can still be harvested as grain when the moisture content is low enough for safe storage. At 35 percent grain moisture, corn is normally fully dented and kernels are hard all the way to the base.

Corn containing more than 35 percent grain moisture probably cannot mature now and will have to be salvaged. If this corn is picked, artificial drying will be needed or the corn should be fed immediately.

Livestock farmers can ensile the grain for future feeding, but silos should be airtight to prevent excessive losses. Ear corn can be ensiled at 30-35 percent moisture. When the whole ear contains about 35 percent moisture, the grain has about 30 percent moisture. Justin and Otto recommend that ear corn be chopped into short lengths and then coarsely ground before ensiling.

Shelled corn can be ensiled at about 30 percent moisture. With this moisture content, the grain should be coarse ground before ensiling. Slightly higher moisture content is desirable if the grain is not ground.

(more)

add 1 -- frost-killed corn and soybeans

Rains before and after the freeze increased the moisture content of corn. But whole plant corn silage can be made after excess moisture is lost. If moisture content is in excess of 70 percent when ensiled, seepage will probably occur and result in poor quality silage.

For more information on corn silage, ask your county agent for Agronomy Fact Sheet No. 9, titled "Corn Silage," or write to the Bulletin Room, University of Minnesota, St. Paul, Minn. 55101.

Decisions about harvesting soybeans should also be based on the crop's maturity when frozen, say Justin and Otto. If leaves had started to fall from the soybeans at time of freeze, the crop was probably mature enough to be harvested for grain. Combine these soybeans when the moisture level of the beans is about 35 percent.

The beans may be immature on soybean plants which were still green when frozen. But if beans were formed and still slightly green when frozen, the crop may be worth more as grain than as silage, even though the market value will be lower than for fully mature beans.

Soybean plants which were green when the freeze hit can be ensiled. With moisture content more than 70 percent, the plants should be allowed to dry before ensiling. Ground grain, molasses or sodium metabisulfite can be added to the soybean silage as preservatives.

Justin and Otto advise farmers to be certain all chemicals used for weed and insect control have a label clearance before the soybean or whole plant corn silage is fed to livestock.

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65-235-dcf

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 4, 1965

To all counties

Immediate release

INSECTS CAN BE  
SERIOUS THREAT  
TO STORED GRAIN

The problem of insects in stored grain is becoming increasingly serious as more grain--some of it in poor condition--is put into storage. Stored grain insects can contaminate and cause direct loss of grain.

John Lofgren, extension entomologist at the University of Minnesota, stresses the importance of insect contamination saying, present food grain regulation prohibit sale of contaminated or unsanitary grain.

Insect infestation in a grain bin usually indicates a combination of factors: dirty or damaged grain, moisture content above safe levels, and excess grain temperature. Insects attacking stored grain need these conditions to survive and reproduce.

Stored grain insects must have temperatures of at least 60° F. to reproduce. Primary infestors, like the granary weevil, attack sound, whole grain if moisture content is more than 11 percent and grain temperature is above 80° F. Weevil infestation may occur at lower temperatures if grain moisture content is higher.

-more-

add 1 -- insects can be serious threat

Secondary pests, like the saw-toothed grain beetle, normally will not attack whole kernels except at high temperature and high moisture levels. But if grain is cracked and broken or contains much chaff and dust, the secondary pests will breed if temperature is above 70° F., regardless of moisture content.

Lofgren says Minnesota grain does not become infested in the field. Some bran bugs may be found in the field, but will not survive in the bin if grain is in good storage condition. Grain becomes infested when put in a bin which has held infested grain or which is near infested feed or grain.

If more than five of the secondary "bran bugs" or any of the primary infesting weevils are found per quart sample of grain, control measures should begin.

Turning the grain or moving it slowly from one bin to another on a cold day will often cool the grain enough to halt insect activity temporarily. Proper fumigation is the only way to stop stored grain infestation, says Lofgren.

Because grain fumigants vaporize into heavier than air gases, all cracks and holes in the bin should be sealed to prevent gas leakage. Grain in the bin should be leveled to provide uniform penetration of fumigants. To insure complete vaporization of fumigants, grain temperature should be at least 65° F. Also, fumigate on a calm day.

Apply liquid fumigants evenly over the grain surface with a sprayer forming a coarse-droplet spray or solid stream. Use a reliable commercial fumigant at the recommended rate and follow special precautions. Because fumigants are toxic, never fumigate grain alone or breathe fumigant vapors. Wear a gas mask with a fresh cannister approved for the particular fumigant being used.

After spraying, seal the bin for four or five days. If grain is to be fed to livestock four or five days after fumigation, it should be stirred or turned to speed evaporation of the fumigant.

For more information on preventing infestation in stored grain, ask your county agent for Entomology Fact Sheet No. 9, entitled "Insects in Stored Grain," or write to the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 4, 1965

To all counties  
4-H NEWS  
Immediate release

4-H FILLERS

Minnesota Has Reporter to the Nation

A Minnesota 4-H girl, Elizabeth Covington, Minneapolis, is one of 12 young people from throughout the country selected as "4-H Reporters to the Nation." The "4-H Reporters to the Nation," chosen each year are considered typically outstanding among the nation's members in town and country, city and suburbia. During National 4-H Week they told the 4-H story to the President, to national organizations, leaders in government, business and industry, agriculture and education, as well as to the general public through press, radio and television.

Elizabeth, 17, is a charter member of the Trailblazers 4-H Club in Minneapolis. She is a senior at Central High School in Minneapolis -- the school from which Secretary of Agriculture Freeman graduated -- and an honor roll student. In April she was a delegate to the National 4-H Club Conference in Washington, representing the 12 percent of Minnesota's 4-H'ers in urban areas.

\* \* \* \*

The photography project is teaching about 4,000 Minnesota 4-H boys and girls how to operate a camera and the techniques for taking pictures in either natural or flash lighting.

\* \* \* \*

Within the last year in Minnesota, the enrollment in the 4-H dog project has doubled and the horse project has increased 25 percent.

\* \* \* \*

Anything mechanical has a special appeal to many boys, as is indicated by the number of 4-H'ers enrolled in the mechanical projects--now about 10,000 of them. The mechanical projects include automotive, electric, shop and tractor.

Automotive care and safety project members study traffic safety, automobile selection, operation and upkeep and learn about career opportunities in the field of automotive safety. Members in the electric project learn the use of electricity, how it works and the making of simple electrical devices. Shop project members make articles out of wood, metal, concrete or rope. 4-H'ers enrolled in the tractor project study the operation of the tractor and keep a record of cost, servicing, and repairs.

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Department of Information  
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Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 4, 1965

To all counties "M"  
ATT: HOME AGENTS  
Immediate release

BUY EXACT SIZE  
IN PERMANENT  
PRESS SLACKS

Buying permanent press wash slacks for the boys in the family for school? About 60 percent of the boys' wash slacks are now of the permanent press variety. These slacks are available in twills, corduroys, gabardines, poplins and other fabrics.

When you buy permanent press slacks, be sure to select the exact size to fit, extension clothing specialists at the University of Minnesota suggest. The only alterations practical on permanent or durable press boys' slacks are shortening the pants legs and taking the slacks in at the waist. Other alterations are possible but if they are made, stitch marks, a crease or a lighter color line will show, detracting from the appearance of your slacks.

Permanent press is a process "baked" into the complete slacks, not merely into the crease. Wool slacks have been on the market for several years with the permanent press in the crease only.

Because manufacturers are experimenting with durable press on many fabrics, the smart consumer needs to be particularly careful in choosing wash slacks. Always read the label carefully so you know what type of wear to expect and what kind of care to give them, the specialists caution.

Although permanent press slacks have many advantages, some of the problems have included an undesirable odor, a whitening at the waistband, creases showing wear, some fading and streaking.

As is the case when any new product comes on the market, consumers may have to buy several different brands before they find one that is altogether satisfactory, the clothing specialists say.

Department of Information  
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Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 4, 1965

To all counties "M"  
Immediate release

STACK SILAGE  
REDUCES CORN  
STORAGE PROBLEMS

Above average rains during September followed by the hard freeze of September 25 increased the probability of soft corn in much of Minnesota. Farmers trying to find storage space for more silage than expected may consider making use of stack silage this year.

Storage losses will be heavier with stack silage than with silage put in trenches or upright silos, according to James Justin, extension agronomist at the University of Minnesota. But where adequate structures are unavailable for storage, stacks can be useful for salvaging a crop. With careful construction and thorough packing, much storage loss can be prevented.

Pick a site with good drainage. Stacks can be built without site preparation, however, working up two- or three-foot soil ridges along the length of the stack site will make packing easier and more adequate.

Spreading the silage from the middle toward both ends produces a stack shape better suited for driving over with equipment. As the silage is spread, pack continuously with a truck or tractor to force out air and aid preservation. Use a shovel or tractor loader to scrape off edges which cannot be packed well. Pile this silage on top of the stack, then pack and round the stack top for better water shedding.

add 1 -- stack silage

After the silage is stacked and thoroughly packed, seal out air. Plastic sheets will serve well. Even if plastic sheets are used only one year, the improved preservation of silage will probably pay for the added expense, says Justin. Weighting the edges and tops of the plastic sheets with soil to prevent air seepage is worth the extra effort.

Building paper or heavy sisal paper can be used instead of plastic sheets. Using a layer of sawdust soaked with water or packing soil over the stack also cuts down air seepage.

Justin says sawdust or soil can be used on top of plastic sheets or without plastic, but recommends using plastic sheets between the silage and layer of soil or sawdust. Any material which adds weight and stops air seepage is useful to cover the silage stack.

Making and using stack silage calls for the same considerations as with any silage: distribute silage evenly, pack well, keep out air, and once the silo is open, feed enough each day in warm weather to prevent spoilage.

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Department of Information  
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University of Minnesota  
St. Paul, Minnesota 55101  
October 4, 1965

To all counties  
4-H NEWS "M"  
Immediate release

**HORTICULTURE-  
4-H PROGRAM  
EXPANDED**

4-H'ers will now have the opportunity to explore more widely in the field of horticulture, announces Leonard Harkness, state 4-H club leader at the University of Minnesota.

The expanded horticulture project is oriented towards the 4-H'er interested in gaining a keen insight into nature, Harkness adds. The member has an opportunity to develop a better understanding of the basic principles of science relating to plant growth.

The horticulture program is divided into six projects: lawn and landscape design, indoor gardening, flower gardening, vegetable gardening, fruit and potato. New publications have been released for the first four of these projects. Records and publications for the fruit and potato projects will be the same as those used last year.

Purpose of the lawn and landscape design project is to help 4-H'ers learn more about trees, how they grow, how to maintain the lawn, and how to make a simple landscape design. Members will obtain information on taking a soil sample, controlling weeds and insects, the planting and care of trees, planning a landscape and how to create a pleasant setting for the garden.

The indoor gardening project will teach 4-H'ers how to grow plants indoors. Members will be instructed in the care of house plants, indoor bulbs, flower arranging, creating a dish garden and growing a terrarium.

The flower garden project gives 4-H'ers information about the planting and care of flowers for the home. Members will learn how to grow annuals and perennials, how to divide perennials, grow perennials from seedlings and arrange flowers in the border.

The vegetable gardening project teaches members how to plan, plant and care for a vegetable garden.

Department of Information  
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October 4, 1965

To all counties  
Immediate release

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IN BRIEF...

Rat migration: Rat control should be stepped up in the fall, because rats tend to migrate more during fall months. Stressing the importance of control, Robert Berg, extension poultry specialist at the University of Minnesota, says three rats can eat as much feed as one hen and contaminate 10 times as much feed as they eat. More information is available in Extension Folder 31, "Rat Control," from your county agent or the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

\* \* \* \*

Sodding Lawns: Sodding of home lawns can continue until the ground begins to freeze this fall, according to Gus Hard, extension horticulturist at the University of Minnesota. But sod should not be applied over frozen ground. Also, be sure the sod is moist when the soil freezes this fall.

\* \* \* \*

Dutch Elm Disease: Since 1961, more than 100 cases of Dutch Elm disease have been identified in communities in the southern half of Minnesota. Herb Johnson, extension plant pathologist at the University of Minnesota, recommends two publications on the disease and its control. Extension Folder 211, "The Dutch Elm Disease," and Special Report 14, "Dutch Elm Disease and Community Decisions," are available from your county agent or the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

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Harvesting carrots: Carrots will stand several frosts without injury. O. C. Turnquist, extension horticulturist at the University of Minnesota, says carrots will keep better in winter storage if harvested sometime in October.

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Department of Information  
and Agricultural Journalism  
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University of Minnesota  
St. Paul, Minnesota 55101  
October 11, 1965

To all counties

Immediate release

IN BRIEF...

Storing apples: Select only the best apples for storage and place in perforated polyethylene bags. Neil Miles, extension horticulturist at the University of Minnesota, says wrapping fruits individually is unnecessary, but does lengthen storage life. Keep storage temperature between 32° and 38° F. Store in a room with high humidity to prevent moisture loss from the apples.

\* \* \* \*

Woodland plantings: State Division of Forestry nurseries have Norway, white, Ponderosa, Jack and Scotch pine; white, black and Colorado spruce; and white cedar conifer seedlings for sale to woodland owners for spring planting. Hardwoods include silver maple, green ash and caragana, says Bill Miles, extension forester at the University of Minnesota. Seedlings are available at one dollar per hundred trees. Minimum order is 500 trees and delivery will be next April or May. Get applications from county agent, Soil Conservation Service office, local state forestry office or from Division of Forestry, Centennial Building, St. Paul, Minnesota 55101.

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Spring bulbs: Spring bulbs can still be planted during October. Gus Hard, extension horticulturist at the University of Minnesota, says bulbs should not be planted on the south side of the house because higher temperatures may induce winter growth. Tulips and daffodils should be planted at least six inches deep and covered with mulch.

\* \* \* \*

Discourage Rodents: To keep rodents from eating bark of orchard trees, use a cylinder of quarter-inch hardware cloth, about six inches in diameter and 18 inches long, around the tree trunk, says Neil Miles, extension horticulturist at the University of Minnesota. Set cylinder about one or two inches into the ground.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 11, 1965

To all counties  
4-H NEWS  
Immediate release

WEED CONTROL  
ESSAY CONTEST  
ANNOUNCED

Any youth in \_\_\_\_\_ County between the ages of 12 and 18 is eligible to enter the Weed Control Essay Contest, sponsored by the North Central Weed Control Conference, Wayne Carlson, assistant state 4-H club leader at the University of Minnesota, has announced.

"How We Control Weeds on Our Farm" is this year's topic. Contestants must be part of a family actively engaged in managing and operating a farm.

The essay must not exceed 1,000 words in length and will be judged 75 percent on subject material and 25 percent on method of presentation. The title should be followed closely in writing the essay.

The contest offers an opportunity for 4-H'ers in \_\_\_\_\_ County who have done a good weed control job on their farms to make it known and receive some recognition for their efforts, Carlson said.

November 30 is the deadline for the winning county essays to reach Gerald R. Miller, extension agronomist, Institute of Agriculture, St. Paul, Minnesota 55101.

The state winner will receive an award of \$25. The winner of the high-scoring essay from the several states and Canadian provinces participating will be awarded a scholarship valued at \$300.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 11, 1965

To all counties " M "

ATT: HOME AGENTS

COOK VEGETABLES  
QUICKLY FOR  
MOST FOOD VALUE

Light green cabbage that's still crisp, deep green snap beans, bright orange squash give meals color and flavor that add up to appetite appeal. Many other vegetables now in ample supply add this same sparkle to family meals.

But vegetables make still another contribution. They provide a year-round source of several valuable minerals, particularly calcium and iron, and of the essential vitamins A and C,--that is, if they're cooked properly.

One of the best methods of cooking vegetables to conserve maximum food values is to cook them only until they are tender, in just enough water to prevent scorching, say extension nutritionists at the University of Minnesota. Use a fairly heavy pan with a tight fitting lid so the vegetables can cook quickly in a small amount of water without the steam escaping. Expensive equipment is not necessary for cooking vegetables to conserve their nutrients.

The nutritionists list some other ways of saving food values:

Boiling carrots, potatoes and sweet potatoes in their skins. This method retains more vitamins and minerals than peeling, cutting and then cooking these vegetables. Potatoes boiled whole in their skins retain almost all their original nutrients.

-more-

add 1 - cook vegetables

- . Baking potatoes and sweet potatoes whole in their skins.
- . Panning vegetables like cabbage or summer squash in a covered frying pan with a small amount of fat.
- . Cooking in a pressure saucepan if the cooking period is timed carefully.

For those who like to cook enough vegetables at one time for several meals, the nutritionists warn that they may be saving time but at the expense of lost food value. Cooked vegetables have about three-fourths as much vitamin C after one day in the refrigerator as when freshly cooked, and after two or three days in the refrigerator they have only a third to a half as much vitamin C as when they were freshly prepared.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 11, 1965

To all counties "m"

Immediate release

IMMATURE CORN  
MAKES GOOD SILAGE  
FOR CATTLE FEED

Minnesota farmers faced with the problem of salvaging corn killed by the September freeze should consider using the immature frosted corn to make silage for feeding beef cattle, says R. E. Jacobs, extension animal husbandman at the University of Minnesota.

Ground ear corn silage produced from high moisture immature ears can be an excellent grain feed for cattle. For best results, the ears should remain in the field until kernel moisture is between 25 to 32 percent. With kernel moisture within this range, cobs will contain about five percent more moisture than the kernels.

Corn growers may want to wait another week or two to determine whether the corn will mature enough to be harvested for grain, says Jacobs. If the corn has not matured sufficiently after this period, the crop can be harvested for whole plant corn silage.

Even though moisture content is usually about 70 percent in average corn silage, whole plant corn silage with 50 percent moisture content will keep well in silos or stacks when finely chopped and well packed. If moisture content falls below 50 percent, water should be added to silage material at time of ensiling, says Jacobs.

add 1 - immature corn

More information is contained in Extension Bulletin No. 308, "Silage Production and Preservation," and Agronomy Fact Sheet No. 9, "Corn Silage." The publications are available from your county agent or from the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

Whole plant corn silage, fortified with protein supplement and minerals can be the chief energy feed for fattening calves of 350 pounds and more, and yearlings. Calves on full silage feeding, plus protein supplement, should gain about 1.9 pounds per day and yearlings about 2.2 pounds per day, says Jacobs. Feeding an additional two pounds of cracked corn (air-dry basis) per head daily will mean gains of about 2.2 pounds per day for calves and 2.5 pounds for yearlings.

Adequate protein supplementation is important in full-feeding corn silage. A daily allowance of 1.3 pounds total crude protein should be fed to 400 pound fattening calves, 1.8 pounds to 600 pound calves, 2 pounds to 800 pound calves and 2.3 pounds to 1,000 pound calves. Yearlings of 600 pounds need 1.8 pounds crude protein; 800 pound yearlings, 2.2 pounds; and 1,000 pound yearlings, 2.6 pounds.

Cattle full-fed whole plant corn silage and protein supplement with no additional grain will eat about 5.5 pounds of silage per hundred pounds live weight.

To determine daily crude protein requirement for a 400 pound fattening calf for example: Multiply animal weight of 400 lbs. times 5.5 lbs. This equals 22 lbs. of silage. At 2.3 percent of protein in the silage, we get .506 lbs. of crude protein from silage. From the daily protein requirement of 1.3 lbs. for a 400 pound calf, we find we need an additional 0.8 lb. of crude protein which must be added by feeding protein supplement. Using a 40 percent protein supplement, two pounds will provide sufficient crude protein (2 lbs. x 40 percent protein supplement = 0.8 lbs. crude protein).

Cattle full-fed whole plant corn silage usually require vitamin A supplementation. Supplementation with 20,000 units of vitamin A per head daily is usually recommended. Commercial protein supplements usually contain adequate vitamin A additions at little extra cost.

add 2 - immature corn

Jacobs says rations containing at least two pounds of high energy grain, such as corn, barley or wheat, produce more efficient silage utilization than rations with only silage, protein supplements and minerals. But feeders can full-feed corn silage, protein supplements and minerals to calves for seven to eight months and to yearlings for five to six months. Then corn grain or barley can be added to the finishing ration.

With a previous full-fed diet of silage and protein supplement and no additional energy feeds, cattle deserving a U. S. Choice finish will need at least a pound of grain daily per hundredweight during a two to three month finishing period, says Jacobs.

Providing adequate minerals and salt on a free-choice basis is important when cattle are full-fed on whole plant corn silage rations, even though the protein supplement contains minerals. Commercial mixtures of 20 percent calcium and six percent phosphorus; or equal parts of ground limestone, steamed bonemeal or di-calcium phosphate and trace mineralized salt, will serve well.

Department of Information  
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Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 11, 1965

To all counties "M"

Immediate release

CONSTRUCT MILKHOUSE  
LARGE ENOUGH FOR  
INCREASED PRODUCTION

Dairy farmers constructing a milkhouse or milkroom should be sure to plan for an adequate size to meet future demands, says V. S. Packard, extension dairy products specialist at the University of Minnesota.

With construction getting underway to meet requirements of the 1965 Minnesota Milkhouse Law, Packard outlines some major points of the law.

The law applies only to producers of manufacturing grade milk and only those producers handling milk in bulk tanks. Can milk producers are exempt. For producers installing a bulk tank for the first time, the law has been in effect since July 1, 1965. Bulk installations existing before July 1, 1965, will have to meet the law's requirements by January 1, 1968.

As production increases, farmers must consider installing larger tanks, says Packard, and minimum milkhouse size should be 12 x 14 feet. Recommendations are being made to assure 36 inches between outlet end and other equipment or the nearest wall and 24 inches clearance on the other sides.

Gauging tank size for every-other-day pick up, use production of seven milkings during the flush season as a measure. Packard says, "Experience indicates you'll soon be filling the tank in two days."

add 1 - construct milkhouse

Drains should not be placed under the tank or outlet valve. Put drains where most water is found--near wash sinks--and  $1\frac{1}{2}$  feet from outside walls to prevent freezing. Also, drain pipes should not be run through the wall.

Use a hose port fitted with a tight self-closing door. Make hose port six to eight inches square. Locate the port in an exterior wall, about six inches above the milkhouse floor and outside loading apron.

The milkroom should have an adequate, readily accessible water supply and water heaters. Packard says a 30-gallon water heater will be needed if no pipeline is used. Heater capacity should be 50 or 60 gallons capacity with pipelines. Higher temperatures may be required with pipeline systems.

Lights should not be placed directly over the bulk tank. Use two 150-watt bulbs placed above and just beyond the end of the tank. Windows are not required, but are desirable. Make window space equal to 10 percent of floor area and screen windows.

For ventilation, make outside fresh air inlets with a cross section area equal to one square foot per 750 cubic feet per minute (CFM) of fan capacity. Fan capacity in cfm should be equal to  $1/6$  the cubic volume. Example: Milkroom size 12 x 14 x 8. Fan capacity  $12 \times 14 \times 8 \times 1/6 = 224$  cfm. The bulk tank should not be located under a ventilator.

Recommended construction calls for a five-inch-thick concrete floor poured over at least eight inches of sand or gravel fill. For proper drainage, slope the floor at least one quarter inch per foot toward drains.

Use tight construction for the ceiling and walls of the room. Packard says building materials might include matched lumber (shiplap or flooring), exterior plywood, and asbestos board or similar exterior materials on lumber backing.

A vestibule is not required. Use a solid, tight-fitting, self-closing door between the milkroom and bar, stable or milking parlor. Make the outer door large enough to move a bulk tank in or out--possibly a tank larger than the present model. If outer door swings inward, provide an outward-opening screen door during fly season.

add 3 - construct milkhouse

Other equipment should include a two-compartment wash and rinse sink, with a drying rack, preferably metal. Construct a storage cabinet for milk filters, gaskets and additional supplies. Insecticides, medicinals, and weed, fungus and rodent killers should never be stored in the milkhouse, says Packard.

For more information, read Special Report No. 9, "Milkhouse and Milkroom Construction for Quality Milk Production." Copies are available from your county agent or the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 18, 1965

To all counties  
4-H NEWS  
Immediate release

YOU CAN HAVE  
WINTER BEAUTY  
WITH INDOOR BULBS

Pot some tulip, daffodil, hyacinth or crocus bulbs before the end of October and you should have flowers to brighten your home in January or February.

Be sure to buy bulbs of good quality and size and varieties adapted to pot culture, advises C. Gustav Hard, extension horticulturist at the University of Minnesota.

Ideal temperature for rooting these bulbs is 40° F.; for growing, 50° F.; and for flowering, 60° F.

Here are the University horticulturist's suggestions on forcing bulbs for indoor bloom:

- . Use clay flower pots 6 inches in diameter, placing pieces of broken pots, stones or gravel in the bottom for good drainage.

- . Fill the pot at least half full of soil. Plant the bulbs pointed end up, allowing half an inch between each bulb. Plant the same type of bulbs in one pot -- all tulips or all daffodils, for example.

- . Cover the bulbs with half an inch of soil.

- . Soak thoroughly with water immediately after potting.

- . Label each pot with the name and variety of bulbs.

4-H boys and girls who have only a few bulbs can use an easy method of storing the bulbs for rooting. Add a couple of inches of sand or gravel for drainage in the bottom of an apple box or similar container and set the potted bulbs in the box. Surround each pot with moist peat moss or leaves and cover with straw or hay. Place the box in a cool spot outdoors.

About eight weeks after planting, when the bottom of the flower pot is full of roots, bring the bulbs indoors, but put them on a porch where the temperature is between 40 and 50° F. Keep the plants out of direct sunlight for about two weeks. After the bulbs have made a few inches of top growth, bring them into full sunlight where the temperature is 65° to 70° F. Keep the soil moist at all times, especially while the plant is in flower.

Forcing bulbs is one of the aspects of the 4-H indoor gardening project.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 18, 1965

To all counties " M"  
ATT: HOME AGENTS  
Immediate release

PARENTS CAN HELP  
CHILD SURMOUNT  
CRISIS OR DISASTER

How do children react to crises such as serious illness or death in the family, divorce or such disasters as fires and floods? What can parents do to help the children surmount a crisis so that it will not have long-range effects on his feelings and behavior?

Frequently parents feel they should shield children from knowledge of some disastrous happening. But R. L. Pitzer, extension family life education specialist at the University of Minnesota, points out that an unwillingness or inability to discuss a distressing event may actually result in an effect opposite to what the parent intended. Adult concealment or evasion may increase a child's apprehension and anxieties.

At any moment of crisis, Pitzer says, a child turns to his parents for cues not only as to how he should behave but also as to how he should feel. "If the parent abandons his role as guide and source of support, the child finds his world topsy-turvy. If parents go to pieces or otherwise exhibit emotional distress in the presence of their children, they are essentially abandoning this aspect of their parental role," the University family life specialist declares.

Young children rarely react to disaster news directly, Pitzer explains. When a crisis arises, children react largely to the attitudes, emotional responses and tone of voice of persons around them. Hence, if adults are able to avoid feeling needless alarm and irrational panic in times of crisis, children seldom miss the cue.

Although a child should not be burdened with details of illness or misfortune which he can't comprehend, he should be given a simple explanation adapted to his age and ability to understand. "The ideal time to discuss a child's worries is when the child brings them up and wants to talk about them, not when the parent gets around to it," says Pitzer.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 18, 1965

To all counties  
Immediate release

IN BRIEF.....

Orchard Care: Some pruning of orchard trees should be done in fall. All dead, broken or diseased branches can be removed as soon as trees are dormant, says Neil Miles, extension horticulturist at the University of Minnesota. The major pruning should wait until late winter when trees are still dormant, but after the coldest winter weather has past.

\* \* \* \*

Gopher Control: In the fall, pocket gophers are active near the surface of the ground, expanding runways and mounds and excavating storage chambers for their winter food supply. The increased surface activity means increased damage to shrubs and tree plantations. Norman Johnson, state supervisor of the division of wildlife services of the U. S. Fish and Wildlife Service, says the best control measure is to use a burrow builder machine and strychnine-treated grain as bait.

For more information on controlling pocket gophers, write to the Department of Agriculture, State Office Building, St. Paul, Minnesota; or to U. S. Fish and Wildlife Service, Room 670, State Office Building, St. Paul, Minnesota.

\* \* \* \*

Grain Insects: Insects in stored grain can cause contamination and direct loss of grain. John Lofgren, University of Minnesota extension entomologist, says food grain regulations prohibit sale of contaminated or unsanitary grain. Insect infestation in a grain bin usually indicates a combination of factors: dirty or damaged grain, moisture content above safe levels, and excess grain temperature. For more details on preventing and controlling stored grain insects, read Entomology Fact Sheet No. 9, "Insects in Stored Grain." Get a copy from your county agent or from the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 18, 1965

To all counties  
Immediate release

CROP DISEASES  
REVIEWED FOR  
1965 IN MINNESOTA

Compared with crop damage and lowered yields from the September freeze, late planting and water damage, diseases caused only light losses to Minnesota field crops in 1965.

Extension plant pathologist Herbert G. Johnson at the University of Minnesota points out that severity of plant diseases varies widely from year to year and summarizes 1965 evidence on diseases for various field crops:

Corn. The corn virus disease was not identified in Minnesota this year. Tests run by University researchers showed negative results.

Crazy top disease was reported in some areas, but acreage affected was insignificant in comparison with total acreage in the state. Abnormal tassel growth is caused by infection with a downy mildew fungus. The disease occurs mostly in low field spots where plants stand in water a short time--long enough to start the fungus growth, but not long enough to kill the plants. Plants infected with the unusual disease produce no ears.

Northern corn leaf blight, which causes oblong leaf spots on corn, was present this season, but in small amounts.

Soybeans. A root rot disease, first identified in Minnesota in 1964, showed up in several south central counties of the state this year. The disease was identified when plants were noticed dying on low ground in greater numbers than is likely from water damage. Though the disease was not widespread, soil from the infected areas was taken to University greenhouses to test susceptible plants against resistant plants. Test results indicate soybean varieties are available with good resistance to the disease. -more-

add 1 - crop diseases reviewed

Bacterial leaf blight and stem canker were present in soybean crops in about normal amounts this season. Some injury was also caused from accidental application of weed chemicals. Hormone type chemicals drifting from adjacent fields or carried over from the previous year produced some damage and symptoms are much like those of infectious diseases.

Alfalfa. After a poor start, much of the first alfalfa crop was hit by leaf spot. Some leaf spot is expected on the lower leaves. But even though the first alfalfa crop was cut in early blossom stage, leaf spot fungus was infecting the top leaves and growing as fast as the crop. No direct control measures are known to combat leaf spot. Recommendations call for good cultural practices, fertilizing to encourage rapid crop growth and cutting at the proper time.

Sugar Beets. As sugar beets have increased in popularity and importance, cercospora leaf spot has caused an increasing amount of damage in Minnesota. In 1963, the fungus disease was severe and in 1964, the disease had its highest incidence to date in the state. During these years, fungicide spray programs returned \$3-\$5 for every dollar spent.

A striking change occurred in 1965. As in past years, the disease was present by mid-July, but a month later the leaf spot infection had not increased. Spraying started in June and July was discontinued. Cercospora leaf spot thrived during hot periods of 1964, however, the cool weather in 1965 seemed to check the leaf spot growth.

The disease is still present and overwinters in plant refuse. It generally starts earlier and is most severe in fields adjacent to where sugar beets were grown the previous year. But the growth of leaf spot seems to depend on weather conditions.

Wheat. Leaf rust was severe this season, even for recommended varieties, and hurt wheat yield because leaves began dropping off even before the kernels were fully developed. Cris, a new wheat variety, showed up well when tested against other varieties in comparison plots. The new variety's leaves remained green even after leaves had dropped off other varieties.

add 2 - crop diseases reviewed

Crazy top disease, which affects corn, also produced some damage to grass-type crops, such as: wheat, oats and barley. In wheat, the disease caused abnormal heads and kinking of the stems below the head. Some persons thought the symptoms were caused by chemical injury, but tests showed large spores in the wheat leaf tissue indicating crazy top disease.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
October 21, ,1965

Immediate release

## GUIDES GIVEN ON SELECTING PICTURES

How do you choose pictures for your home?

For individuals who have not developed definite ideas on the subject, some guides are given in a newly published and well illustrated University of Minnesota Agricultural Extension Service bulletin, Selecting Pictures. Authors are Mrs. Myra Zabel and Rachel Munson, University extension specialists in home furnishings.

A worthwhile picture has good composition, interesting color and a well interpreted idea, the publication points out. Color is probably the most enjoyable quality of pictures, whether it is quiet and restful or gay and stimulating. When a picture ceases to give satisfaction, remove it at least temporarily and replace it with one that is a source of pleasure, the authors of the publication advise.

Pictures selected for a particular room should be similar in color and feeling, should fit the room and its furnishings and should be interesting and stimulating to the family, the specialists suggest. Pictures of very personal interest such as family photographs are best displayed in more personal rooms than the living room.

For children's rooms pictures should be colorful without much detail. But if children are to enjoy their pictures they should be permitted to choose those they like. The specialists recommend that parents offer children a wide assortment of pictures from which they can make their own selections.

Selecting Pictures, Extension Bulletin 323, is available from county extension offices or from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101

# # #

65-252-jbn

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
October 21, 1965

Immediate release

#### SEVEN 4-H'ERS GET AWARDS FOR LIVESTOCK WORK

Six teenage youths and a teenage girl are putting to good use on their home farms the care and management practices they have learned in the years they have carried 4-H livestock projects.

The seven 4-H'ers have been named state winners in agricultural and various livestock projects and will receive trips to the National 4-H Club Congress in Chicago Nov. 28 - Dec. 1 as their awards.

They are Dennis Thiesse, 18, Fairmont, agriculture; Donald Theuninck, 18, Marshall, beef; Cheryl Barten, 16, Belle Plaine, poultry; Roger Lind, 19, Balaton, livestock; Thomas Tweeten, 18, Spring Grove, and Wayne Lepper, 18, Hawley, swine; and Edward Smisek, 17, Lonsdale, sheep.

Thiesse won his trip on the skill he has attained in a wide variety of agricultural projects. These have included dairy, swine, electric, shop and conservation, along with junior leadership. A 4-H Key Award winner for his achievements and leadership, Thiesse has built a dairy herd of nine animals, adding one each year he has taken the dairy project. In the project he has learned year-around care and feeding for greater production. He is now a student at the University of Minnesota.

Theuninck's beef record was responsible for his award. He has had all three major beef breeds and has experimented with different feeding methods. He has demonstrated at the State Fair four different times. This year Theuninck is secretary of the State 4-H Federation. The Lyon County youth plans a career in agricultural economics.

(more)

add 1 --Livestock Awards

Miss Barten, the only girl among the state livestock winners, has been largely responsible for the growth of the family poultry flock from 200 pullets the first year she took the poultry project to 1,000 at present. She has won purple ribbons for exhibiting poultry and demonstrating at the State Fair. In 1961 she was selected as a delegate from Minnesota to attend the Foultry Fact-Finding Conference in Kansas City.

Many of the practices Lind has learned in his livestock projects he has put to use on the home farm. His livestock projects include poultry, beef and sheep. A 10-year 4-H club member, he has been on a State Fair livestock judging team four times. He plans to become an extension agent.

As a result of his training in the 4-H swine project, Tweeten has introduced the use of farrowing crates and herd improvement through swine testing on the family farm. A 4-H'er for nine years, he has won trips to the State Fair six times with his demonstrations. He is now a student at Winona State College, majoring in chemistry.

Lepper, a 4-H'er for 11 years, has expanded his swine project into his own herd. The 4-H Key Award winner from Clay County has given demonstrations at the State Fair five different years. As junior leaders both Tweeten and Lepper help younger members who are taking the swine project.

Raising sheep has been Smisek's ambition ever since he was a child. When he joined 4-H nine years ago, his father bought him a ewe with twin ewe lambs. The Rice County youth promptly enrolled in the sheep project. Now he has 32 ewes and 20 lambs, including both Hampshire and Southdown purebreds and cross-breds. He has won 11 county championships on his sheep and a purple ribbon at the state junior livestock show, as well as the county champion showmanship award.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
Tel. 647-3205  
October 21, 1965

Immediate release

#### WATERCOLORS ON LOGGING BY MINNESOTA PAINTER TO BE SHOWN

A memorial exhibit of 50 watercolors by the late Rush City artist, Mrs. Effi Sheldon Bornhoft, will open Sunday noon, Oct. 21, in the University of Minnesota's St. Paul Campus Student Center Galleries.

The 50 paintings have been given by the artist's husband, George C. Bornhoft, to the University's Institute of Agriculture. They will be formally accepted by Keith McFarland, director of resident instruction for the College of Agriculture, Forestry and Home Economics at a special program at 2 p. m. (Oct. 31). Frank Kaufert, director of the School of Forestry, will comment on 31 of the paintings which portray early scenes of logging in Minnesota.

In addition to the watercolors of the logging industry, the memorial collection includes 10 floral paintings, four panoramic views of the harbor at Superior, Wis., and five panoramic views of Duluth. The Bornhoft memorial exhibit of watercolors will continue through Nov. 24 in the St. Paul Campus Student Center Galleries. A coffee hour sponsored by the Student Center Board of Governors will follow the formal acceptance of the paintings.

Before her death in the spring of 1965, Mrs. Bornhoft had given 40 of her watercolors of Minnesota wild flowers to the University.

Mrs. Bornhoft was a leader in the art movement among rural people in Minnesota and was active in promoting interest in the University of Minnesota's annual Town/Country Art Show. She exhibited in every Town/Country Art Show until the time of her death.

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65-250-jbn

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 25, 1965

To all counties  
Immediate release

FEEDER CATTLE  
SITUATION IN  
STATE REVIEWED

Cattle in Minnesota feedlots number about the same as last year, but more heifers and fewer steers are on feed and cattle are lighter than last year, according to the October 1 Cattle on Feed report of the Minnesota Crop and Livestock Reporting Service.

Marketings during July, August and September were lower this year compared with the same quarter for 1964, and average prices for steers and heifers were higher, says Eldon Johnson, livestock statistician for the reporting service.

Cattle in state feedlots totaled 301,000 on October 1, 1965, equalling year-ago levels, but three percent above the five year average. Placements in feedlots from July through September totaled 109,000 head, about one percent below last year.

Steers made up 69 percent of the cattle on feed at the beginning of October this year compared with 75 percent a year earlier. Most of the other feeder cattle were heifers. The heifer total was up 22 percent from October 1 last year, while number of steers was down seven percent, says Johnson.

Feedlot cattle in Minnesota were of lighter weight than a year ago. The 1965 report says about two-thirds of the cattle on feed weighed less than 900 pounds, compared with 59 percent in this weight group last year. Cattle weighing more than 900 pounds totaled 95,000 this year, down 29,000 head from a year earlier.

add 1 - feeder cattle situation

From July through September, state marketings numbered 168,000 head, seven percent under last year's total for the same quarter. In third quarter 1965 at the South St. Paul Stockyards, prices for steers and heifers sold out of first hands for slaughter averaged \$23.73 per hundred, \$2.27 above the same quarter of 1964. At South St. Paul, slaughter weight averaged 989 pounds per head, 35 pounds lighter than a year ago.

If feeders' reports on the October 1 survey are carried out, fed cattle marketings will be an estimated 160,000 for the last quarter of 1965, about five percent less than a year ago, says Johnson.

In 32 major states feeding cattle for the slaughter market, cattle numbered 7,359,000 head on October 1, 1965, up seven percent from last year. Total cattle on feed in North Central States showed a five percent increase from a year earlier.

For the 32 major feeding states, marketings of grain fed cattle from July through September were 4,366,000 head, an increase of three percent above the same quarter in 1964. Expected marketings from October through December are estimated at 4,195,000 head, up five percent from actual marketings a year earlier.

More details concerning the October 1 Cattle on Feed report are available. Write KUOM Radio Station, 107 Coffey Hall, St. Paul Campus, St. Paul, Minnesota 55101. Your request will be forwarded to the Minnesota Crop and Livestock Reporting Service.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 25, 1965

To all counties  
4-H NEWS  
Immediate release

FORCE NARCISSUS  
FOR WINTER BLOOM

With a little effort and a few cents, you can have indoor bulbs flowering for the Thanksgiving or Christmas holidays.

Bulbs such as paper white narcissus, potted in late October, will flower in three to five weeks, says C. Gustav Hard, extension horticulturist at the University of Minnesota.

For planting such bulbs indoors, Hard recommends these practices:

- Buy large plump bulbs from the nursery.
- Cover the bottom of a dish or shallow bowl with pebbles, sand, gravel or pearl chips.
- Set three to five bulbs on this layer and add pebbles, sand or pearl chips to within half an inch of the top of the dish.
- Add water until it is even with the top of the pebbles.
- Maintain this water level during the forcing period.
- Put the container in a sunny window and the bulbs will flower in three to five weeks.

Forcing bulbs is one aspect of the 4-H indoor gardening project. For more information on indoor gardening, 4-H'ers should contact their county extension offices and ask for Extension 4-H Bulletin 61, Indoor Gardening or Extension Bulletin 274, Care of House Plants.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 25, 1965

To all counties  
ATT: HOME AGENTS  
Immediate release

TURKEYS TO BE  
PLENTIFUL IN  
NOVEMBER

Consumers needn't worry about any lack of turkeys for Thanksgiving -- or any other time in November.

Turkeys head the U. S. Department of Agriculture's list of plentiful foods for the month. Marketings are expected to be nearly 5 percent greater than in November last year.

Other abundant foods in November will provide the makings of varied meals. Split peas, potatoes, onions, cabbage, apples, prunes, frozen concentrated orange juice and rice are all in good supply.

If you want an especially good buy on turkey, you'll pay less per pound for the larger birds. A 20-pound tom, for example, is cheaper per pound than a 10-pound bird. You'll also get more meat in proportion to carcass on the big birds.

Split pea soup is a good choice for cold November days. Split peas are in heavy supply and will be selling at reasonable prices.

Production of potatoes, onions and cabbage has been high this year. Present estimates indicate that the fall crop of potatoes will be the second largest on record.

The second largest apple crop since 1949 will give consumers plenty of apples for eating out of hand and for cooking. The best way to keep apples is to store them in perforated polyethylene bags at temperatures between 32 and 38° F. The refrigerator is the best place to keep small quantities of apples.

Dried prunes, prune juice and concentrated frozen orange juice continue to be plentiful.

And, finally, there will be plenty of rice for casserole dishes and puddings. This year's production is the largest yet, and 5 percent greater than last year's record.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
October 25, 1965

To all counties  
Immediate release

UM STUDY SHOWS  
IMPROVED PASTURES  
RAISE BEEF OUTPUT

The advantage of improved pastures to increase beef production is emphasized in a four-year experiment conducted by University of Minnesota researchers.

Pastures improved with either manure, commercial fertilizer or renovation were superior to control pastures in beef produced per acre, value of beef produced per acre, and number of steer days per acre.

The value of beef produced per acre over lime, fertilizer, tillage and seed costs averaged \$58.85 for nitrogen pastures, \$58.10 for renovated pastures, \$54.45 for manure pastures, and \$40.67 for control pastures over the four-year experiment.

Steers averaged gains of 1.68 pounds per day on nitrogen pastures, 1.52 pounds per day on renovated pastures, 1.35 pounds per day on control pastures, and 1.18 pounds per day on manure pastures.

All pastures received three tons per acre of ground limestone in the fall of 1956. Until 1965, all pastures except the control received annual treatments of 200 pounds of 0-20-20. Manured pastures received no 0-20-20 in 1965 because of the very high soil test for phosphate and potash. Eight tons per acre of manure were applied annually in the fall to manured pastures.

Nitrogen pastures were treated with 80 pounds of actual nitrogen annually, plus the treatments made on all improved pastures. Original grass was mainly timothy, brome and scattered areas of bluegrass.

Renovated pastures were cultivated three times in the fall and one time in the spring with a deep tiller. Then renovated pastures were disked and seeded to a per-acre mixture of five pounds of Vernal alfalfa, a pound of alsike clover, six pounds of Lincoln bromegrass and two pounds of Orchard grass.

The experiment was conducted by P. M. Burson, professor in the Department of Soil Science; A. R. Schmid, associate professor in the Department of Agronomy and Plant Genetics; and J. C. Meiske, assistant professor in the Department of Animal Husbandry.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University Of Minnesota  
St. Paul, Minnesota 55101  
October 25, 1965

To all counties  
Immediate release

IN BRIEF.....

Fruit Tree Care: Fruit trees will withstand winter weather best if plant tissues are fully dormant and hardened before cold weather strikes. University of Minnesota extension horticulturist Neil Miles recommends delaying any watering, fertilizing and pruning until after a few killing frosts. If this advice is followed, trees will remain fully dormant and will not begin growing during the warm fall days.

\* \* \* \*

Storing Vegetables: Temperature is the key to successful vegetable storage. O. C. Turnquist, extension horticulturist at the University of Minnesota, says root crops like carrots, beets, parsnips and rutabaga need a temperature between 32-40° F. for best storage. Squash and pumpkin store best at temperatures of 40-50° F.

\* \* \* \*

For More Dairy Profits: The Dairy Herd Improvement Association (DHIA) program has yielded returns of five dollars for every dollar invested for thousands of Minnesota dairymen.

In 1962, 10 cows in DHIA herds were as profitable as 30 average Minnesota cows. With DHIA records, dairymen can compare their herds with similar herds producing for like markets. Analysis of the records often shows ways to improve breeding, feeding and other practices for more savings and increased income.

For more details about the advantages and how to join the DHIA program in your county, ask your county agent for Extension Folder No. 225, "DHIA Records Put More \$ in Your Milk Pail." Or write to the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
October 26, 1965

Immediate release

#### PESTICIDE EDUCATION PROGRAM STRENGTHENED AT UNIVERSITY

Philip K. Harien has joined the staff of the University of Minnesota Agricultural Extension Service. His appointment will further strengthen the University's educational program toward safe use of pesticides, said Luther Pickrel, director of the Extension Service.

Harien will have the title of associate professor in the Department of Entomology, Fisheries, and Wildlife and extension entomologist. He will devote his time to the entomological aspects of safe and wise use of pesticides.

Harien's appointment is the second in recent months made possible by special federal appropriations to the Agricultural Extension Service for pesticide education work. Neil W. Miles had joined the staff earlier as an assistant professor in the Department of Horticultural Science and extension horticulturist. Miles is devoting full time to pesticide educational programs in the Twin Cities metropolitan area.

Harien is a native of Nicollet, Minnesota graduating from Nicollet High School and Mankato State College. He received his M. S. from Virginia Polytechnic Institute and his Ph. D. from Kansas State University, both in entomology. Since 1960 he has been engaged in entomological research for the U. S. Department of Agriculture at Savannah, Georgia. Previous to that he had worked for Pillsbury Co., Minneapolis, in research and sanitation programs.

Harien is married and has four children.

# # #

65-255-hbs

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
October 26, 1965

Immediate release

## U PUBLICATION GIVES TIPS ON BUYING, COOKING BEEF

Buying meat wisely and cooking it successfully are among the daily challenges homemakers face.

A University of Minnesota Agricultural Extension Service publication has been revised to help them meet these challenges and make the most of their meat dollars. The bulletin is How to Choose... How to Cook Beef by Verna Mikesh, extension nutritionist at the University of Minnesota.

Miss Mikesh emphasizes that a knowledge of the characteristics of the beef cuts will help consumers select the meat they want. The cuts along the back-- such as the rib, short loin and sirloin--are the most tender, she explains, since the animal exercises these parts the least. Although there are variations in the tenderness of the muscles of the round and chuck, most of them are not very tender because the animal exercises these parts. A chart in the bulletin showing the location of cuts from a side of beef and 20 illustrations of different cuts will prove helpful to the consumer who wants to be more knowledgeable in meat purchasing.

An explanation is given of federal beef grades and their characteristics as guides to judging and buying the quality desired. About 50 percent of the graded beef in U.S. markets is now USDA Choice, which is characterized by its tenderness and moderate amount of marbling with fat.

A section of the publication is devoted to basic beef cookery: the use of dry heat methods such as oven roasting, broiling, panbroiling and panfrying for tender cuts, and moist heat methods like braising, stewing and simmering for less tender cuts.

Miss Mikesh stresses the advantages of using low temperatures in meat cookery by comparing cooking losses in a standing rib roast weighing 9 pounds, 10 ounces before cooking. Roasted at 300° F. for 4 hours and 49 minutes, the roast shrank the normal amount of 2 pounds, 2 ounces. But when a similar cut was roasted at 450° F. for 2 hours and 32 minutes, the shrinkage was 3 pounds, 8 ounces, due to fat and moisture losses.

Copies of How to Choose... How to Cook Beef, Extension Bulletin 297, are available from county extension offices or from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101

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65-253-jbn

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota  
October 26, ,1965

For release Wed., Oct. 27  
or after

## TWO MINN. HOME AGENTS TO RECEIVE AWARDS

KANSAS CITY, MO. - Two Minnesota home agents will receive distinguished service awards at the 31st annual meeting of the National Association of Extension Home Economists at the Muehlebach Hotel here Friday (Oct. 29.)

Mrs. Ilene Naley, Long Prairie, home agent in Todd County, and Mrs. Ruth Kent, Grand Rapids, home agent in Itasca County, are among 72 extension home economists who will be recognized at a special brunch Friday morning. The distinguished service honor is given to extension home economists for serving 10 or more years as educational leaders in helping women to apply the latest research in management, consumer education, housing and house furnishings, child development, clothing and nutrition.

The honor is the second Mrs. Naley will receive at the convention. Today (Wednesday, Oct. 27) she was presented with a \$500 check as one of two winners of the Grace Frysinger Fellowship for 1965-66. The fellowship provides for a month of study and travel to give a home agent opportunity to observe home extension work in other states. Mrs. Naley's project will be a study of young homemaker programs in other states.

This year's president of the Minnesota Association of Extension Home Economists, Mrs. Naley has been a home agent in Todd County since September, 1957. Before joining the county extension staff she was a home service representative for the Northern States Power Company, St. Paul; had been assistant dietitian for Children's Hospital, St. Paul; 4-H club agent in Anoka County; assistant 4-H club agent in Kandiyohi County and acting home agent in Nobles County. She holds a B.S. degree in home economics from the University of Minnesota.

Mrs. Kent was home agent in Itasca County from 1945-1951, then returned to that position in March, 1959. She has taught home economics in Minnesota and Iowa schools. She holds a bachelor of arts degree from Concordia College, Moorhead, with a major in home economics.

Both women are members of the Minnesota Home Economics Association, of the State and National Association of Extension Home Economists and of Epsilon Sigma Phi, national honorary extension service fraternity.

# # #

65-254-jbn

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
October 26, 1965

Immediate release

#### 4-H SHOP, ELECTRIC, TRACTOR WINNERS NAMED

Designing and finishing tables, constructing a stereo and conducting an annual machinery checkup on the family farm are among the accomplishments of three Minnesota 4-H youths who will receive awards for their skills in mechanical projects.

Jim Hartung, 17, Hector; David Michaelson, 16, St. Cloud; and Robert Roseberg, 17, Isle, will attend National 4-H Club Congress, Chicago, Nov. 28 - Dec. 1, as state winners in the 4-H shop, electric and tractor projects, respectively.

Designing tools, tables and a desk, Hartung has captured four purple ribbons at the Renville County Fair and the State Fair. A shop project leader for two of his nine years in club work, he guides the work of 34 club members in making tool chests, bird houses and giving demonstrations. He has made a Danish modern coffee table, an end table, a student's desk, an occasional table, a copper ashtray and various tools. He is a freshman at the University of Minnesota majoring in physics.

A six-year member, Michaelson won his trip for his work with electricity. He began his project learning simple electrical procedures by making extension cords, lamps, and other simple objects. Some of his later projects include helping to wire the family room in his home and building a portable yard light and a stereo phonograph. This past year his experiments with control circuits developed into a State Fair demonstration and exhibit. As a junior leader he assisted other Sherburne County 4-H'ers with their electric projects. He attends St. Cloud Technical High School.

Roseberg, the state tractor project winner, has completed eight years of club work in Mille Lacs County. As a result of his project work, the family is saving both time and money by making annual checkups on machinery. He also started a soil testing program on the family farm. He has represented his county at the state tractor contest. His other projects are shop, electric, junior leadership, agronomy, soil conservation, conservation, health, home yard improvement, forage and potatoes. He plans a career in agriculture.

# # #

65-256-smk

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
October 28, 1965

Immediate release

## UNIVERSITY PUBLICATION GIVES TIPS ON HANGING PICTURES

Wondering how to hang the pictures in your home so they'll show off to best advantage? Or are you puzzled about how to group a number of small pictures?

You can get some solutions to your problems from a University of Minnesota Agricultural Extension Service publication just off the press, Hanging Pictures, by Mrs. Myra B. Zabel and Rachel F. Munson, extension specialists in home furnishings.

To get full enjoyment from the pictures you select for your home, they say, you must consider the wall space, other furnishings, the size of the picture, the grouping and the background.

First, look at the space where you wish to hang the picture. Usually the picture looks best if it has proportions similar to those of the wall space. For example, a wide picture will repeat a horizontal space over a long sofa, and a tall picture will look at home in a vertical space.

Since pictures are a part of the total room design, they should be placed near other furnishings. A good rule to remember is to hang a picture close enough to the furniture to become an actual part of the grouping. A picture will belong to a grouping if the space between it and other items is less than its narrow dimension.

Generally, pictures should be low enough so they can be viewed easily from a sitting position. In children's rooms, pictures should be at a level where the children can enjoy them.

(more)

## add 1 --Tips on Hanging Pictures

Always consider picture size in relation to both furniture grouping and wall space, the specialists suggest. A small picture will look out of place with a large chair or in a large wall space. But if you want to use a small picture with a large-scale furniture grouping, combine it with other pictures or with wall hangings.

Pictures similar in subject, color, or medium can be grouped successfully. One way to tie them together is to mat and frame them similarly. Usually it's best to avoid combining too many shapes within a single grouping. A narrow space between pictures will give your picture arrangement a unified appearance.

Plain or nearly plain walls are the best backgrounds for pictures. If you plan to hang pictures on patterned wallpaper, frame them with wide, plain mats to provide rest space between picture and wall.

To hang pictures flat against the wall, place the screw eyes for the wires within the upper quarter of the frame. If you place the wires lower, your picture will tip forward. Gluing small squares of foam rubber to the lower corners of the frame will keep the picture straight and prevent dust from collecting.

Mrs. Zabel and Miss Munson give this tip if you're hanging large, heavy pictures with wires attached to the molding: Place the wires parallel to each other and then paint the wires the color of the wall to conceal them.

Copies of Hanging Pictures, Extension Bulletin 325, are available from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul, Minn., 55101, or from county extension offices.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
St. Paul, Minnesota 55101  
October 28, 1965

Immediate release

#### STATE 4-H CLOTHING AWARDS GIVEN TO FIVE GIRLS

Their ability and skill in sewing a fine seam have brought top honors and special awards to five 4-H girls in state competition, according to Evelyn Harne, associate state 4-H club leader at the University of Minnesota.

The 4-H winners are Judy Scott, 18, Hibbing; Judith Ann Regan, 18, Mora; Susan Paulsen, 17, Pipestone; Kathy Sultze, 16, Osseo and Kristine Jensen, 15, Farmington.

Each girl will receive either a sewing machine or a \$100 scholarship from Dayton's, Minneapolis.

Miss Scott has been a dress revue queen in North St. Louis County and has won trips to the State Fair on clothing exhibits and demonstrations. This year as clothing project leader, she assisted younger members with their records. She has made a total of 125 garments throughout her eight years in 4-H. The Key Award recipient is a freshman at Briar Cliff College, Sioux City, Iowa.

A nine-year member of the Webster Troopers 4-H Club, Miss Regan has demonstrated at the State Fair in the clothing project and has served on various committees in Kanabec County. She is a sophomore at St. Cloud State College.

Miss Paulsen has made 72 articles in her seven years in the clothing project. The eight-year 4-H member has been dress revue queen in Pipestone County and has won county champion ribbons on her clothing exhibits. As president of her local club, she assisted in organizing the county dress revue. She is a senior in Pipestone Central High School.

In 1963, Miss Sultze won a purple ribbon on her state clothing exhibit. She has served on the county dress revue junior council. A seven-year 4-H member, she is a freshman at the University of Minnesota, majoring in home economics.

Miss Jensen has won two trips to the State Fair with clothing exhibits and four trips on clothing demonstrations. In 1964 she was selected Dakota County dress revue princess and participated in the State Fair dress revue. She is a junior in Farmington High School.

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#### WOOL SKIRTS SUPERIOR IN PERFORMANCE

All-wool and wool-polyester blended fabrics should be among the most satisfactory materials for girls' skirts because of their ability to maintain their shape, original appearance and fit after drycleaning or laundering.

These are findings of recent laboratory tests by Agricultural Experiment Stations in the North Central Region. Home economics researchers participating in the investigation were from Minnesota, Illinois, Indiana, Kansas, Missouri, South Dakota and Wisconsin.

A laboratory evaluation of wool and wool-like fabrics was undertaken because a previous study had indicated that mothers and daughters preferred wool and wool-like blends in girls' winter school skirts.

Fabrics chosen for the laboratory testing included all wool, wool and manmade fiber blends, flannel-type rayon and rayon blends in gray shades.

The stress-strain tests applied to the fabrics indicated that wool fabrics performed better than rayon fabrics in shape retention. The wool and wool blends also proved superior in wrinkle recovery after laundering and drycleaning.

(more)

add 1 --Wool skirts

The wool fabrics shrank lengthwise when both laundered and drycleaned, but drycleaning caused less shrinkage. As expected, the all-wool fabrics which had not been treated for washability shrank more than the other fabrics when laundered. Shrinkage was less with wool blends containing 15 percent nylon. The acrylic-wool and polyester-wool blends were likewise more stable to laundering than the all-wool fabrics. Acrylic-wool blends with 60 percent or more Orlon shrank only 2 to 3 percent in length in washing compared with 7 percent in drycleaning.

Although the all-rayon fabric was labeled washable, it shrank more than the rayon blends in laundering. Fabrics containing rayon were stiffer than those containing wool when new, but after drycleaning the rayons became limp while the wools changed little in stiffness.

Performance in laundering differed with agitator-action and tumbler machines. Wool fabrics shrank less when laundered in agitator-action machines than in tumbler machines. But wrinkle-recovery was generally better after laundering by tumbler than by agitator action.

All fabrics showed only slight changes in color after laundering, except for the wool-nylon blends which developed a pink cast.

Wool and wool blends showed the greatest tendency toward pills adhering to the fabric surface.

The laboratory evaluation of skirt fabrics is reported in North Central Regional Research Publication 170, Adolescent Girls Skirts, available from Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

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