

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul 55101 Tel 373-0710  
July 1, 1971

Immediate Release

## ALFALFA WEEVIL SPREADS ACROSS STATE

The alfalfa weevil, potentially devastating to alfalfa, recently has been found in 13 more Minnesota counties by State and University of Minnesota officials. The weevil is not yet in numbers which could be economically damaging.

New counties where alfalfa weevil has been discovered include Mower, Olmsted, Dodge, Freeborn, Faribault, Steele, Waseca, Blue Earth, Le Sueur, Goodhue, Rice, Dakota and Scott.

The insect pest was originally discovered last year in Houston, Fillmore, Winona and Wabasha counties. Since last fall, alfalfa weevil apparently has spread halfway across the state, University entomologist Edward Radcliffe said.

Entomologists are worried because new insect pests often enter an area and remain for several years before their natural diseases, parasites and enemies "catch up" with them. This means that new insect pests in an area might build up rapidly in a short time before natural causes stem the population increase.

Entomologists are maintaining a wait, watch and see attitude, but nevertheless, they say the pest has a good chance of building up numbers which could damage alfalfa in the state.

MSC  
g 227p

add 1--alfalfa weevil

No spraying for alfalfa weevil is recommended at this time on the more than two million acres planted with alfalfa or mixtures. However, early cutting of alfalfa is recommended. Also, alfalfa weevil resistant lines of alfalfa are available, should the weevil build up to damaging numbers.

Both the State Department of Agriculture and entomologists at the University are monitoring the weevil build up.

Last year nearly 6 1/2 million tons of alfalfa and mixtures were harvested in Minnesota.

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Immediate Release

#### AWARDS ANNOUNCED IN S. E. ART EXHIBITION

Jack Dahl, Janesville, and Dick Plasschaert, Waseca, have received first awards for their paintings in the second annual Southeastern Minnesota Art Exhibition, according to an announcement from Huldah Curl, extension arts coordinator at the University of Minnesota.

Dahl's painting was entitled "New Salem." Plasschaert's was "Winter."

Their paintings, both acrylics, along with the works of 35 other award winning artists, will be on display during the Southeastern Minnesota Art Exhibition in Rochester on the Apache Mall July 7-11. The exhibition is open to the public.

Both first award winning artists are from Waseca County.

Judges for the show were Walter Johnson, director of extension visual arts at the University of Illinois and Robert Clark Nelson, painter and designer, St. Paul.

Second place in the show went to Doug Truhlar, Amboy, and to Ann Keller Judkins, Faribault. Harvey Bernard, Chatfield, and Constance Swenson, Rochester, received third place. Dahl, Bernard and Constance Swenson also received merit awards for other paintings they had entered in the show.

Merit awards went to Mrs. James Brady, Medford; Mae Buckeye, Jackie May and E. M. Miller, Mankato; Harold Crawford, Adele Hagan, Xenia Hagan, Ruth Squillace and Constance Swenson, Rochester; Jack Dahl and Robert Williams, Janesville; Merle Edblom, Doris Gardas, Louise Goult and Grace Kinvig, Red Wing; Rona Emerson, Kenyon; Esther Flom, Austin; Gwen Hill, Eagle Lake; Marilyn Hoppe, Kasson; Beverly Kiehne, Chatfield; Mrs. Clement McVey, Winona; Alta Milan, Wanamingo.

Janet Mrachek, Wabasha; Mary Alice Owens and Harvey Bernard, Chatfield; Carl Schneider, Blue Earth; Andrew Speiker, Morristown; Mertice St. Clair, Owatonna; Jeanette Swim, La Moille; and Becky Kruger, Plainview.

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#### FIVE REGIONAL 4-H DOG SHOWS SCHEDULED

Five regional 4-H dog shows have been scheduled throughout Minnesota.

They will be held July 18, in Worthington; July 21, Rochester; August 8, Wadena; September 11, Hermantown Elementary School, Duluth; and Como Park Lakeside Pavilion, St. Paul.

Each show starts at 1 p.m. with pre-beginner, novice and graduate novice classes. Each 4-H'er can exhibit one dog per class but may show another dog if he has worked with it at another class level.

The regional 4-H dog shows are a tool to help build interest in the dog project among 4-H'ers and friends of 4-H throughout the state, according to Daniel Lindsey, assistant state leader, 4-H and youth development, University of Minnesota. The dog project is open to boys or girls who own any type of dog. Judging is based on the performance of the dog, the ability of the 4-H'er to handle the dog and grooming.

In each show area a committee composed of interested dog leaders and junior leaders is making arrangements and will be conducting the show.

The public is invited to attend free of charge. Private individuals and organizations throughout the state are sponsoring the regional shows.

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#### DISTRICT 4-H SHARE THE FUN CONTESTS SCHEDULED

Six district 4-H Share the Fun Shows have been scheduled throughout Minnesota during July.

They will be held July 22, Glencoe; July 23, Luverne; July 24, Blooming Prairie; July 27, Glenwood; July 28, Ada; and July 29, Aitkin. All performances will start at 8 p.m. at the high school in each city.

Eighteen acts from the six district shows will be selected to participate in the state 4-H talent show scheduled for Wednesday night during the Minnesota State Fair. All the shows are free and open to the public.

The 4-H Share the Fun Shows are sponsored by the University of Minnesota Agricultural Extension Service and Cargill, Incorporated.

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Department of Information  
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St. Paul, Minnesota 55101  
July 2, 1971

To all counties  
Immediate release

OATS FOR SILAGE  
GIVES GREATER RETURN

Cutting oats for silage can nearly double the value of the crop for Minnesota livestock farmers in some areas, says a University of Minnesota agronomist, Oliver Strand.

A 60-bushel yield of oats will give about 8 tons of silage per acre, which could be worth \$60 to \$70 per acre in protein and TDN, he says.

Currently, Minnesota farmers harvest most of the 3½ million acres of oats yearly as grain. The average grain yield in Minnesota is only 50 to 60 bushels per acre. At an average price of 65 cents per bushel, this is a return of less than \$40 per acre. An additional \$25 to \$30 per acre can often be obtained from straw.

However, there is a poor market for straw in some Minnesota areas and many farmers may have other sources of bedding besides straw. In those areas harvesting oats for silage should be the most economical.

Cutting oats for silage also allows the farmer to get oats off the field earlier and helps spread out the labor load. Furthermore, grain yield losses due to lodging are eliminated as well as losses due to the killing out of new seeding where oats is used as a companion crop.

Oats for silage cut at the boot stage or in early flowering stage for high protein, low fiber feed must be wilted to less than 70 percent moisture or preservatives need to be added, Strand says.

Oats cut at late milk or early dough must be allowed to wilt. However, if oats are cut at mid-dough stage, no wilting is needed.

For further information concerning oats for silage, write for Agronomy Fact Sheet number three, "How About Oats for Silage," from the Bulletin Room, University of Minnesota, St. Paul Campus 55101.

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To all counties  
Immediate release

OATS, BARLEY ADEQUATE  
FEED SUBSTITUTES

Low moisture content oats or barley can be fed to dairy cattle as a substitute for low moisture alfalfa silage, according to a University of Minnesota scientist.

Cattle fed low moisture content oats and barley in University experiments produced as much milk as another group fed low moisture alfalfa silage, University dairy scientist G. D. Marx reported.

Barley silage with 41.4 percent dry matter and oat silage with 45.8 percent dry matter both proved to be an adequate substitute for low moisture alfalfa silage, he said. Milk production of the group fed 56.2 percent dry matter barley silage, however, was significantly depressed when compared with other treatment groups, Marx said.

Cutting small grain for silage rather than dry grain resulted in obtaining increased nutrients per acre, because two crops of low moisture grain silage can be harvested in a single season, he explained.

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To all counties  
Immediate release

IN BRIEF. . . .

Use Insecticides Properly. Consider the value of bees foraging in or near the crop areas to be treated with insecticides, says University of Minnesota Entomologist David M. Noetzel. Vegetable, fruit or seed crop yields can be reduced through pollinator reduction as a result of bee kill in neighboring fields. It is always wise to check the field to be treated for both harmful and beneficial insects before applying an insecticide, he says.

\* \* \* \*

Use Insecticides Safe For Bees. Always use the insecticide safest for bees that will give the most economical insect control, says University of Minnesota Entomologist David M. Noetzel. Avoid using an insecticide hazardous to bees on any plant in bloom, including field or orchard flowering weeds.

Applications should be made when honey bees are in the hives, such as early morning or late evening. Avoid the use of dusts and do not make applications when excessive drift will occur. Use ground equipment for application whenever feasible.

For more information, write for Entomology Fact Sheet Number 41, "Protecting Honey Bees From Insecticides," from the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

\* \* \* \*

Sow in Early August. Cool-season crops such as lettuce, spinach, radishes, turnips and kohlrabi can be sown around Aug. 1 so they will mature during the cool fall weather. University Horticulturist Orrin C. Turnquist says sometimes a fall crop of peas is successful, but it should be planted about mid-July. Chinese cabbages planted around July 20 usually result in fine heads for fall use.

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add 1--in brief

Weed Killers Available. Several chemicals are available for controlling weeds in vegetable crops, but their use generally is not practical for the home gardener, according to Orrin C. Turnquist, University horticulturist. A new material, dacthal, is available as a granule for weed control in several vegetable crops. Follow directions carefully for its use.

\* \* \* \*

Holcus Spots Reported. White to cream colored spots on corn leaves are Holcus leaf spots caused by bacteria--not caused by southern corn leaf blight, University Plant Pathologist Herbert G. Johnson says. The corn blight has been discovered in trace amounts in Minnesota's Dodge, Brown and Murray counties, but recent surveys show that Holcus leaf spots are generally present in all fields. Some leaves have as many as 25 spots. Holcus spots have never been known to cause yield loss. They generally appear after rain, particularly after driving rains. Johnson says the spots run from one-sixteenth to one-quarter inch or more in diameter and sometimes run together to make larger spots.

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To all counties

ATT: Extension Home Economists

Immediate release

CONSIDER EFFECT  
OF BRIGHT AND DARK  
COLORS IN PAINTING

If you're planning to paint a room in your home, how do you decide on the color?

Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota, gives some guidelines to keep in mind as you select room colors. Light colors make a small room seem larger; dark colors make a very large room appear smaller. Bright walls in a large room detract from furnishings that would otherwise be decorative.

When ceilings are darker than walls, they seem lower than they actually are. When painted lighter than the walls they appear to be higher.

Paint generally dries to a slightly different color or shade than it is when wet. For a fast preview of the final color, brush a sample swatch of the paint on a piece of clean, white blotting paper. The blotting paper will immediately absorb the wet gloss and the color on the paper will be approximately the same as the color of the paint when it dries on the wall.

Since colors often change under artificial lighting, look at color swatches both in daylight and under artificial light.

Colors also change with the time of day, the University home furnishings specialist says. Late afternoon softens and deepens colors. Shadows darken colors. A warm-toned incandescent light enhances the warm tones and seems to wash out blues and greens.

A room painted a sunny yellow can actually give the impression that there are lights on in a room when there are not.

## *Food for Better Health Program*



An Expanded Food  
and Nutrition Education Program  
in Home Economics Extension

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Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
July 2, 1971

To all counties

ATT: County Extension Home  
Economists

Immediate release

### HOW MUCH FOOD SHOULD YOU BUY?

If you live alone or are cooking for only two persons, have you ever asked yourself whether you should buy the largest size can of fruit, the jumbo size breakfast cereal or a sack of flour because it costs less per unit?

There are times when the largest size is not the best buy. For instance if:

- . Using it up means monotonous meals. Even though you may enjoy peaches in many forms and for many occasions, peaches as sauce for breakfast, salad for lunch and dessert for dinner can be too much.

- . Throwing out left-over food is necessary. You will lose any savings you realized from the large package. Food spoilage is a big factor here.

- . Storing it properly and conveniently is not possible. It may be more economical price-wise to buy a 25-pound sack of flour, but if your flour canister holds 5-pounds of flour, the rest must be stored somewhere in an airtight container. And flour and other cereal products can become infested at any time of the year.

So, if you can store and use the food, a large quantity purchase may be more convenient and save money too. And, it does reduce trips to the store.

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To all counties  
4-H NEWS  
Immediate release

APPLICATIONS AVAILABLE  
FOR 1972 IFYE PROGRAM

If you're interested in traveling to other countries, meeting new friends and sharing ideas, the International Farm Youth Exchange (IFYE) program may be for you.

Among special interests of the IFYEs are learning about youth educational programs in other countries, cooperatives and marketing, nutrition, farmers' organizations, livestock and crop production techniques.

Since the beginning of Minnesota's participation in the IFYE program, 630 families throughout the state have been hosts to 163 exchangees from 53 different countries. IFYEs have been guests in every county in Minnesota.

The International Farm Youth Exchange is a two-way program sponsored by the National 4-H Club Foundation and the Cooperative Extension Service to increase world understanding at the family level.

Application forms for the 1972 IFYE program are available at the \_\_\_\_\_  
(Name)  
County Extension Office. Applications are due \_\_\_\_\_.  
(date)

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## EXPERIMENTAL HERBICIDES TESTED ON SUNFLOWERS

MORRIS--Two experimental herbicides show promise of controlling wild sunflowers in soybeans, according to research conducted this year at the University of Minnesota's West Central Experiment Station, Morris.

Results of the research were reported here today (Thursday, July 8) during a field day at the experiment station.

Weed scientists Robert Anderson of the U.S. Department of Agriculture, St. Paul, and Dennis Warnes of the experiment station said the two experimental herbicides, bromoxynil and BAS3512, show promise, but are not being recommended for use at this time since it is not known now whether these herbicides can gain clearance for use on soybeans.

Several chemicals currently used in corn and soybeans for control of other weeds are being used in trials to control wild sunflowers as the first step in a long-range research project. Although wild sunflowers have not been a large problem for Minnesota farmers, the weed is migrating from the west and is becoming established in western Minnesota, the scientists said.

On corn, various triazine treatments applied both pre and postemergence have been quite effective, but none of the chemicals approved for preemergence soybean treatments will adequately control wild sunflowers in soybeans. And few postemergence chemicals are safe to apply on soybeans, Anderson added.

-more -

add 1--experimental herbicides

The second step in the research project will be to develop control tests for corn and soybeans. The scientists will run tests to determine when the weed germinates, how fast it grows and when it flowers. For example, if the weed germinates through the summer, chemicals with residual properties must be used or treatments must be repeated. The wild sunflower germinates during a long period from spring through early summer, complicating control measures, the scientists said.

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Immediate Release

#### UM DISTRICT REUNIONS SCHEDULED

Alumni members and former students at the University of Minnesota's School of Agriculture will gather for four district reunions in July and early August.

Members of the board of directors of the School of Agriculture and staff members from the Institute of Agriculture will be present at each meeting. A potluck picnic dinner will begin at 12:30 p.m. and a program is scheduled at 2:00 p.m. at each location.

The reunion for District I, Southeastern Minnesota, will be held at Mineral Springs Park, on Highway 14 at Owatonna on Sunday, July 11. Officers of the district association are: president, Russel Roth, Hohak; vice-president, Wayne Hoag, Harmony; secretary-treasurer, Mrs. Jack Heiserman, Owatonna.

The District II reunion for Southwestern Minnesota, will be held on Sunday, July 18 at the Sportsmen Club, 4 miles south of Gibbon. Officers of the District II Association are: president, Homer Berlin, Gibbon; vice-president, Cletus Franta, Lafayette; secretary-treasurer, Mrs. William Paulsen, 152 Cedar Point, Redwood Falls.

-more-

add 1--district reunions

The reunion for District III, Northern Minnesota, will be held on Sunday, July 25 at the Lake Koronis Community Park, south of Paynesville, on the south shore of the lake. Officers of District III are: president, Harold Barton, Silver Lake; vice-president, Ed Gensmer, Hutchinson; secretary-treasurer, Mrs. Lyle Bishman, Dassel.

The District IV reunion, Twin Cities area, will be held Sunday, August 1 at the University of Minnesota Landscape Arboretum, located west of the intersection of Minnesota Highway 41 and Highway 5, west of Minneapolis and south of Excelsior. Kenneth Law, Hastings, president of the School of Agriculture Alumni Association, will preside. Arrangements for the reunion are being made by members of the executive committee of the Alumni Association.

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Immediate Release

## DYES IN BATHROOM TISSUE DO NOT POLLUTE

Contrary to the belief of many ecology minded people, research indicates that dyes in colored bathroom tissue are not toxic to fish or plant life, according to Roger Machmeier, extension agricultural engineer at the University of Minnesota.

The dyes do not provide nutrients for algae growth in rivers and lakes and are not detrimental to septic tank bacterial action which breaks down wastes, he said.

Machmeier's conclusions are based on a report of studies by the Textile Dye Institute, the American Paper Institute, universities and independent research agencies.

The findings state that dyes do not inhibit the biodegradability of tissue products--the ability of any organic matter to decompose.

Dyes used in tissue products are generally attracted to the tissue of other types of solid matter. "When the dyed tissue enters a sewage system the dye will tend to cling to solids in the system rather than enter into solution," Machmeier said.

The rate of dye breakdown depends upon the chemical structure of the dye and the material which has been dyed, Machmeier said.

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SPECIAL

#### UM RECEIVES \$77,474 TO CONTINUE TURKEY RESEARCH

Grants totaling \$77,474 to continue research into disease, nutrition, reproduction and quality problems affecting turkeys have been made to the University of Minnesota's Institute of Agriculture and College of Veterinary Science for 1972-73.

The grants were made by the Minnesota Turkey Research and Market Development Board and the Minnesota Turkey Growers Association with funds from an assessment on turkeys marketed by growers under the state-enacted Promotion Order of 1965. Funds accumulating from the assessment are used for research and market development, William F. Hueg Jr., director of the Minnesota Agricultural Experiment Station, and Roy Munson, association executive secretary and board administrator, said.

The University has had a long time relationship with the turkey association, but with the advent of the promotion order, additional research projects have received financial aid. This has resulted in earlier solutions to the problem than if only state and federal appropriations had been used for the research, Hueg said.

"The self-help attitude of the turkey industry by supporting research is also reflected in many aspects of its activities, which include market development and educational seminars for producers and consumers," Hueg added.

-more-

add 1--turkey research

Munson pointed out that the increased number of research requests and higher level of funding requested has resulted from a "tight budget situation for public research programs."

"The industry has benefited generally from such grants made to the Minnesota Agricultural Experiment Station staff and the grants have resulted in a closer working relationship between the researcher and the turkey growers. Essentially, the research staff understands first hand the problems of the growers through this relationship. The pooling of money by the turkey growers enables the industry to maximize its opportunities while seeking solutions to many of its production and marketing problems," Munson said.

Minnesota ranks first in the nation in turkey production with about 267 million pounds a year. Until 1969, bluecomb disease was one of the most serious problems affecting the Minnesota turkey industry. In 1969, due to a combination of environmental factors and information resulting from University research, incidence of the disease was drastically reduced. The University's Department of Veterinary Microbiology and Public Health is attempting to isolate the cause of bluecomb.

In another project, University research has shown that confinement rearing of turkeys provides better liveability, resulting in a better grade and faster weight gains.

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Immediate Release

## TWO 4-H'ERS AWARDED LEADERSHIP TRAINING SCHOLARSHIPS

Two outstanding Minnesota 4-H'ers have been awarded Danforth Leadership Training scholarships.

They are Ann Marie Christenson, 17, Atwater, and Duane Samuelson, 18, Kensington. They will attend the American Youth Foundation Leadership Training Camp in Stoney Lake, Mich. -- Miss Christenson from Aug. 2 to 14; Samuelson from Aug. 16 to 28.

The scholarship winners were chosen on the basis of their leadership, citizenship and achievements in the 4-H program. Objectives of the leadership camp, which is sponsored by the Ralston Purina Co., St. Louis, Mo., are the four-fold development of youth -- mental, physical, social and spiritual.

Miss Christenson plans to enroll as a freshman at the University of Minnesota this fall, majoring in home economics education. She has been a 4-H'er for nine years, serving as Meeker County Federation president, and treasurer, reporter and songleader of her local club. She has also served as a state 4-H ambassador. Her major 4-H projects have been junior leadership, clothing, horse, poultry and arts and crafts. She is the daughter of Mrs. Doris May Christenson.

Samuelson has completed 10 years in 4-H, participating in the achievement, horticulture, junior leadership and dairy projects. He was Douglas County 4-H Federation treasurer and served as song leader, secretary and reporter of his local club. He has exhibited and demonstrated in the horticulture project at the State Fair for several years. He has served on many county 4-H committees and was selected to give a report on 4-H in Minnesota at the Citizenship Short Course in Washington, D.C. He will be a sophomore at the University of Minnesota Technical College, Crookston, majoring in agriculture. His parents are Mr. and Mrs. Morris Samuelson.

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Immediate Release

## ONLY CERTAINTY OF ORGANIC FOODS: HIGH COST

About the only thing certain about the so-called organically grown foods today is that they cost more.

Organically grown foods are supposed to be grown without the use of inorganic commercial fertilizers or pesticides.

However, there is no difference in foods grown with inorganic commercial fertilizers or with organic manures, according to University of Minnesota soil scientist Curtis Overdahl. The organic manures will first break down to inorganic forms--the same as commercial fertilizers--before plants use them, he said.

"So called 'organically' grown crops are actually inorganically produced the same as from chemical fertilizers. The concept is, therefore, just a myth," he said.

There is no certainty that organically grown foods have less residues of pesticides on them than on other foods, University Entomologist Dave Noetzel said.

There is also no way of knowing whether pesticides have blown from farm to farm. Residues of pesticides left in the ground from years back also make it difficult to say how free of chemical residues a food might be, he said.

-more-

add 1--organic foods

A May 26 article in the Minneapolis Star, quoted Robert W. Marrs, the acting food and drug officer of the Minneapolis district Food and Drug Administration, as saying that "there is no significant or general difference between the residues found in so-called organic foods and other foods. The only difference," he said, "is in the price."

Farmers today have unknowingly become "organic farmers". Overdahl said. On any high producing farm, chemical fertilizers, even though inorganic produce large quantities of organic residues that are incorporated into the soil. It isn't the nutrients from organic matter that is so important, but organic matter improves the soils physically so that they hold more moisture. Then less runs off to pollute lakes or streams.

Today's farming probably puts back twice as much organic residue into the soil compared to 30 or 40 years ago, Overdahl explained.

"Proponents of a certain organic way fail to recognize our least expensive source of organic matter--that obtained indirectly through inorganic materials. The purchase of organic fertilizer is impractical unless material can be obtained for 5 to 10 dollars per ton. Usually residues will return two to four tons per acre each year and are byproducts that cost practically nothing," Overdahl said.

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Immediate Release

## PARENTS ARE MODELS FOR YOUNG CHILDREN

Parents have better opportunity than anyone else to provide children with what they need to develop into well adjusted youths and adults.

Ronald Pitzer, extension specialist in family life at the University of Minnesota, says parents must understand and accept the fact that they cannot avoid playing the central role in their children's lives; furthermore, that their influence is as strong when they shirk their responsibilities as when they try their best.

As the first and most continuing influence over their children, parents need to provide children with:

AFFECTION and the security that affection brings.

INFORMATION and the strength that comes with knowledge.

When children come with a question, parents should never make every effort to avoid turning them off with "I'm busy; don't bother me."

FAITH and the imaginative vigor which comes from knowing that someone believes in you.

STANDARDS and the stability which comes with a working philosophy of life.

add 1--parents are

Children learn beliefs, attitudes and values every day as a result of interaction with people--parents especially. If parents have firm beliefs as to what they think is right and are willing to make decisions on this basis, their children will probably grow up having this same capacity for self-determination.

As parents, let your children know what you believe in--not only practice what you preach, but preach what you practice, Pitzer urges. A child with no model is a child in the dark. It is the responsibility of parents to sort out and clarify their values and then let the children know which ones are important. Children can more easily build up their own set of values when their relationship is good with their parents.

Although parents are the most important influence in the lives of children, the University family life specialist stresses that parents are not responsible for everything that happens to their children. Nor can parents alone provide everything a child needs for his development. Children can take minor lapses on the part of parents, Pitzer says; so long as the total environment is good.

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St. Paul, Minnesota 55101  
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To all counties  
Immediate release

STRONG SOYBEAN PRICES;  
CORN UNCERTAIN NOW,  
UM ECONOMIST REPORTS

Soybean prices for 1971-72 ought to remain relatively strong, while corn prices are difficult to predict at this time due to uncertainty from the impact of southern corn leaf blight on crop size, a University of Minnesota agricultural economist reported.

Soybean prices will closely follow expectations of the 1971 crop's size, Willis E. Anthony said. Soybean crushings have been running quite high and even oil prices have been strong. Consequently, soybean processors have been actively bidding for available bean supplies.

Although the U. S. Department of Agriculture has revised the expected soybean carryover upward to 106 million bushels, the supply is not enough to meet industry's needs. The combined growth rate in recent years for crushings and exports is eight percent.

USDA officials on July 9 estimated that there are 43.6 million acres of beans, which will produce about 1.117 billion bushels. The 1971 crop as now estimated is slightly smaller than the 1970 crop; therefore, unless there are substantial changes in utilization not now foreseen, it would appear that soybean prices ought to remain relatively strong, Anthony said.

The University economists advised soybean and corn producers to assess their own situations and preferences for speculative risk and decide whether or not it is good market strategy for them to be pricing their 1971-72 deliveries.

Corn producers should watch the weekly published southern corn leaf blight advisories, he added. The blight uncertainties have made production estimates more difficult than usual.

add 1--strong soybean prices

Corn price expectations hinge on an individual's anticipated size of the 1971 crop, since the carryover from last year's crop will be relatively small, Anthony said.

USDA estimates that 74.6 million acres of corn has been planted with 64.4 million acres for harvest, which, with the average trend increase in yields, could produce 5.76 billion bushels of corn. This yield and the anticipated 700 million-bushel carryover would yield a supply of more than six billion bushels for 1971-72. Considering anticipated corn utilization for domestic feed and exports, a seasonal average price of \$1.20-1.25 per bushel, based on No. 2 yellow corn sold at Minneapolis, could result.

Based on last year's yield, if the 1971 yield is like last year's yield 4.6 billion bushels could be expected, which could result in a \$1.40-1.45 per bushel season average price, Anthony said.

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To all counties  
Immediate release

HIGH TEMPERATURES  
HURT MILK PRODUCTION

High summer temperatures cause a drop in milk production because cows eat less feed and are subjected to extra stress. University of Minnesota dairy specialists offer these suggestions to help avoid a summer slump.

\* Where possible, provide shade in outdoor lots or pastures and keep the indoor feeding area cool with proper ventilation. A barn with large quantities of air moving through it is one of the coolest places in summer. If possible, provide extra fans to keep the air moving. It may be advisable to keep recently fresh cows in the barn if you can provide good air movement.

\* Keep feed available in cool areas so cows have a chance to eat when they are comfortable.

\* Go heavier on grain feeding in warm weather. High fiber feeds such as poor hay produce more heat per unit of net energy than grains, so it may be desirable to feed more than the usual amount of grain in proportion to roughage.

\* Keep fresh water available. Don't make cows rely on warm, dirty water in ponds or tanks. If you have outside drinking cups, make sure you have enough so that "boss cows" don't dominate them during warm weather. Provide ample watering space so a cow can drink any time.

\* Control flies and other insects. Good sanitation and proper insecticides are a must. Make sure you check the label instructions on all pesticides before using them.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
July 12, 1971

To all counties  
Immediate release

BROWN HAYLAGE LOSES  
DIGESTIBLE PROTEIN  
IN ENSILING PROCESS

A "striking loss" in digestible protein in brown haylage as compared with green haylage recently has been shown by U. S. Department of Agriculture and University of Minnesota scientists.

Although brown haylage may test high in crude protein, has a pleasing smell and cattle seem to eat it well, it does not test high in digestible protein, University animal scientists David Pierson, Richard D. Goodrich, Jay Meiske and James Linn reported.

USDA and University researchers, applying a new chemical test developed by the USDA, found that digestible protein is lost when haylage is heated during the ensiling process in the silo. When haylage heats, the protein reacts with other materials in the plant to make part of the protein undigestible for animals, the scientists explained. According to the research, haylage that did not heat in the silo had a digestible protein content of 13.4 percent as compared to 8 percent for heated haylage.

One out of five farmers were feeding haylage that contained only 60 percent as much digestible protein as would be found in top quality haylage, the research showed.

Feedlot gains or milk production may be below par where brown haylage is being fed because the animals are being shorted on protein, but there are degrees of deterioration in brown haylage. If haylage has some degree of brown color, have it analyzed with the new testing procedure at a laboratory to determine if a protein supplement is needed. Collect samples in air-tight containers, such as one or two-quart plastic bags and send them quickly to the laboratory. Analysis costs average about \$8 a sample.

add 1--brown haylage losses

Laboratories set up for the new test include Ingman Laboratories, 324 Fourth Ave. South, Minneapolis; Minnesota Valley Testing Laboratories, Inc., 212 Woolworth Building, New Ulm; Doty Wilhoit Laboratory, Flour Exchange Building, Minneapolis; Markley Laboratories, Inc., 4606 Old Highway Eight, New Brighton, and Healy Laboratories, 2301 Como Ave., St. Paul.

Avoid haylage browning by taking a few precautions to insure proper moisture content in haylage at the time of ensiling:

--Keep chopper knives sharp and set up to the shear plate, with the shear plate edge maintained, to keep cut length short (about a three-eighths-inch cut).

--Shoot for a moisture range of 50 to 55 percent at time of silo filling with a minimum of 45 percent. If the material gets too dry, add moisture to the silo by dribbling water from a hose into the blower.

--Use distributor pipes to avoid coning of material in the silo. Coning causes separation of the heavier and lighter material as well as air pockets and sets up the ideal situation for heating.

--Pack haylage by tramping periodically when filling the silo.

--Fill the silo reasonably fast, without delays.

These recommendations will aid in excluding air from haylage when it is put in any type of silo structure. Use good quality haylage and ensile correctly, the scientists advised. Excessive heating during ensiling is the first symptom to look for in the change from green to brown haylage.

# # # #

## *Food for Better Health Program*



An Expanded Food  
and Nutrition Education Program  
in Home Economics Extension

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
July 12, 1971

To all counties

ATT: Extension Home Economists

Immediate release

### TIPS ON SHOPPING FOR BREADS AND CEREALS

Does bread head your shopping list practically every time you go to the grocery store? Generally breads and cereals are well liked, inexpensive and easily fit into family meals.

To get more for your money from breads and cereals, consider these points:

- . Read the label to see if the loaf of bread is enriched with B vitamins and iron. Whole-grain and enriched products are more nutritious than unenriched products. It takes three pounds of unenriched bread to give the same amount of thiamine (vitamin B<sub>1</sub>) that is contained in one pound of enriched or whole wheat bread.
- . Compare prices of equal weights of bread. A large loaf does not always weigh more or contain more food value than a somewhat smaller loaf.
- . Select spaghetti, macaroni, rice and noodles in packages marked "enriched." They are more nutritious and usually cost no more than unenriched ones.
- . Choose ready-to-serve cereals in large rather than small individual boxes. The small individual boxes may cost two or three times as much per ounce as the same cereal in a larger box. Pre-sugared ready-to-serve cereals usually cost more per ounce than many unsweetened ones.
- . Serve cooked cereals. The cereals you cook yourself are nearly always less expensive than the ready-prepared ones.
- . Check the supplies of day-old bread at the store. Day-old bread and baked goods may be available at a great savings. Sometimes there is a shelf or a shopping cart full of day-old products at your regular market. If not, ask or watch for these

UNIVERSITY OF MINNESOTA, U.S. DEPARTMENT OF AGRICULTURE, AND COUNTY EXTENSION SERVICES COOPERATING  
stores selling day-old products in your neighborhood.

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St. Paul, Minnesota 55101  
July 12, 1971

To all counties

ATT: Extension Home Economists

Immediate release

FALLS NO. 1  
ACCIDENT KILLER  
IN MINNESOTA

Falls continue to be the number one killer in home accidents.

Among the 493 people who were victims of fatal accidents in Minnesota homes last year, 210 died from falls, according to provisional figures from the Minnesota Department of Health.

The largest number of these deaths occur each year in the oldest and youngest age groups. Many of the falls occur from ladders in poor repair or used improperly, on cluttered stairs, on throw rugs, in bathtubs and showers. Hurry is often a cause of falls.

National Farm Safety Week, July 25-31, is a good time to start eliminating the hazards that cause falls in the home, suggests Mrs. Rosella Qualey, district supervisor, extension home economics at the University of Minnesota, and chairman of the home safety committee, farm and home safety section of the Minnesota Safety Council.

Here are some positive steps every family can take:

- . Keep stairways and passageways clear of hazards like toys and housekeeping equipment.
- . Avoid using loose scatter rugs.
- . Repair or fasten any loose edges or worn spots on carpeting, especially on stairs.
- . Wipe up spills immediately.
- . Install grab bars over the bathtub. Use a rubber mat in the tub.
- . Provide adequate lighting in halls and on stairs. Use a night light in or near the bathroom.
- . Keep ladders in good repair. When using them, place them firmly on the ground or floor.
- . Use a sturdy step stool to reach high places in the home. For better balance, avoid standing on the top step of a stepladder.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
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St. Paul, Minnesota 55101  
July 12, 1971

To all counties

4-H News

Immediate release

4-H'ERS OBSERVE  
NATIONAL FARM  
SAFETY WEEK

\_\_\_\_\_ County 4-H'ers will be busy promoting safe living during National Farm Safety Week, July 25-31.

In many counties 4-H'ers will score their home or farm on a farm hazard hunt check sheet. If they locate any safety hazards, they will correct them, using the safety knowledge they've learned from the 4-H safety project.

(Include additional information about displays, demonstrations or other safety promotions that will be held during the week in your county. Localize story in every way possible).

The importance of the 4-H safety program is shown by statistics compiled by the National Safety Council, Chicago. Each year 115,000 accidental deaths occur in our country, and more than 11,000,000 accidental injuries. Over 22 billion dollars is lost due to accidents and fires each year. An average of 78 people are killed at home by accidents each day.

4-H'ers were the principal supporters of the slow-moving vehicle sign campaign in Minnesota. They sold more than 4,000 signs throughout the state. The 4-H pedestrian visibility program utilizes the idea of applying reflector material to pedestrians' clothing. 4-H'ers have sold about 10,000 kits containing these various reflector materials.

"4-H'ers feel that safety is an interest in doing things the right way and protecting the welfare of others," says Earl Bergerud, assistant state leader, 4-H and youth development at the University of Minnesota. "4-H'ers know that safety is a contribution to good living and good government."

-more-

add 1--national safety week

The 4-H safety project is one of the oldest projects in Minnesota, organized in the early 1930's. It started as a club activity but now has more than 8,500 individual members from every county in Minnesota enrolled in the project.

Each year the outstanding safety member in Minnesota receives a trip to the 4-H Club Congress, Chicago. Paul Houglum, Perley, Norman County, was chosen as one of the six national scholarship winners at the Club Congress last year, receiving a \$1,000 award. Five 4-H'ers are awarded a trip to the National Safety Conference, Chicago, during October. Ten Minnesota 4-H clubs are recognized each year for their outstanding work in safety and top county is also selected. (Mention your county if included in these groups).

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July 13, 1971

Immediate Release

#### FALLOWING NOT NECESSARY BEFORE BEET PLANTING

CROOKSTON--It's not necessary to leave land fallow the year before planting sugar beets, according to the fourth year of research results at the University of Minnesota's Northwest Experiment Station, Crookston.

Soil Scientist Olaf Soine reported on the experiment today (July 14) at a field day for visitors at the Crookston experiment station.

Planting oats in a four-year rotation the year before sugar beets are grown resulted in one percent more sugar in the beets than when the usual rotational pattern, sweet clover-fallow-beets, was followed. Results of the research indicate that farmers can grow four crops in a four-year period instead of three and leaving the land fallow for a year as they do now, Soine said.

In fact, the highest net return, averaging \$116 an acre a year for the four-year period, was realized in a rotation of beets, potatoes, wheat and barley. When beets followed oats, net annual income per acre averaged \$53 as compared to \$42 when fallowing followed sweet clover before beets were planted.

# # #

135-daz-71

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Immediate Release

#### WET SOIL AIDS ALFALFA ROOT ROT

GRAND RAPIDS--Irrigation studies show that wet soil conditions contribute to the development of phytophthora root rot in alfalfa, visitors at the University of Minnesota's North Central Experiment Station here were told today (July 15).

Scientists David Rabas of the experiment station and Fred I. Frosheiser and Donald K. Barnes, both of the U.S. Department of Agriculture, St. Paul, discussed root rot research at a field day at the Grand Rapids station.

Under severe infection the disease develops rapidly, causing alfalfa root systems to deteriorate almost completely. Infected plants become stunted and often die, which drastically reduces forage yields.

Root rot is thought to be a major factor contributing to poor stands and low yields of alfalfa on heavy, wet soils. The development of alfalfa resistant to the disease appears to be a major breakthrough in the development of pest-resistant alfalfa, the scientists said.

# # #

134-daz-71

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July 13, 1971

Immediate Release

## CHILDREN LEARN PREJUDICE

Children learn prejudice much as they learn other basic patterns of social behavior.

Prejudice develops in children from the kinds of social situations in which they grow up. They learn beliefs, attitudes and values as a result of the routine everyday example set by parents and other important persons in their lives.

If a child lives with hostility toward others or with prejudice, he learns hostility and prejudice. If he lives with tolerance, he develops tolerance.

Ronald Pitzer, extension family life specialist at the University of Minnesota, points out some specific ways children develop prejudice from adults:

. Through ideas conveyed, sometimes unintentionally, in the home. An expression such as "that's white of you" associates white with privilege and virtue, while black is used as a negative term. Some phrases common in everyday speech convey attitudes toward certain people, such as "wild Indian." Ethnic, racial or religious stereotypes are often presented unflatteringly in jokes. But most vicious of all are racial, ethnic or religious terms used as epithets: nigger, whitey, honky, kike, Pollack, dago and so on.

. Through ideas about other people and prejudices in conversations of guests in the home, in relations with neighbors, in school, in radio and TV programs or in the newspaper or in movies. If the parent discusses such a situation frankly with the children, they will learn to recognize prejudice when they see it. They then can be helped to understand its causes and how it can be overcome. When children hear remarks about minority groups made by their families, friends or teachers, they accept them as truth and may be on the way to becoming prejudiced.

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July 13, 1971

Immediate Release

## GRAND RAPIDS TO HAVE ART EVENT IN AUGUST

The first Northern Art Exhibition will be held in Grand Rapids, August 13-15 in the Grand Rapids High School.

Highlights of the event will be an exhibition by amateur artists from 24 northern counties and special one- and two-day workshops on arts and crafts.

Up to 300 original paintings, sculpture, drawings and prints completed within the last year will be accepted for hanging. Non-professional artists beyond high school age living in one of the 24 northern Minnesota counties and college art students in the area are eligible to enter one or two original works. Entry dates are July 24 and 25 between 1 and 4 p. m.

Workshops, open to anyone interested, will be given in woodblock printmaking, silk screen printmaking, decorative stitchery, batik and tie dye and back strap weaving. Professional artists and skilled craftsmen will be the instructors. Tuition will be \$7.50 per day.

Information and registration blanks for the workshops and the exhibition are available from a county extension office in the northern Minnesota area or from Continuing Education in Art, 316 Nolte Center, University of Minnesota, Minneapolis, Minn.

The Northern Art Exhibition is being co-sponsored by the University of Minnesota's Agricultural Extension Service and General Extension Division, the Grand Rapids Performing Arts Council, the Itasca Art Association and Itasca State Junior College. It is being held in conjunction with the University's Summer Arts Study Center.

Beginning this year, the Northern Exhibition will be one of four regional exhibitions held throughout the entire state. Award-winning works at each of the exhibitions will be entered in the 1972 statewide Town/Country Art Show on the University's St. Paul Campus next spring, according to Huldah Curl, University of Minnesota, extension arts coordinator.

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Immediate release

## SCIENTIST SEEKS WAYS TO OVERCOME MILK INTOLERANCE

Milk could play a bigger role in combating malnutrition if research currently underway at the University of Minnesota is successful in making milk acceptable to many starving children and adults.

Ronald Richter, University food scientist, will be conducting experiments with rats to find ways to modify lactose, milk's principal sugar, which makes many American Indian, Latin American, Asian and African children and adults sick.

Posters and magazine photographs promoting American foreign aid programs commonly show milk being offered to undernourished children, but many of these children cannot accept milk in its present form. For them, a deficiency in the enzyme lactase results in lactose intolerance characterized by stomach cramps, nausea, bloating and diarrhea.

Lactose intolerance is most common among non-caucasians and generally results from a congenital defect, another deficiency, a related disorder or an associated disease.

Foreign governments and the United States' Agency for International Development (AID), recognizing the problem milk presents, have developed milk substitutes to combat malnutrition. A recent AID publication describes "Leche Alim" as the "most successful of several low-cost, high protein infant foods developed under the AID project, which began in 1964."

add l--milk intolerance

But milk remains one of the best weapons for fighting malnutrition because it contains all of the amino acids essential for good health. Even with its limitations, milk is still the most nutritive food that can be supplied, Richter said.

University research has started with growing bacteria to furnish the enzyme lactase needed to digest lactose in the system. Rats will be given lactose tolerance tests and then will be fed milk with the needed enzyme in it. Blood sugar will be measured before and after the feedings to see how much lactose the rats can handle with the addition of the enzyme.

Researchers hope to overcome the problem by modifying lactose through processing, removing lactose from milk, decomposing lactose or developing new products containing low amounts of lactose.

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Immediate Release

## FANCIFUL NAMES OF MEAT CUTS OFTEN PUZZLING

Are you puzzled by such names on cuts at the meat counter as Penthouse steak, Ranch or His and Her steaks?

Are fanciful names given to various cuts simply to confuse the consumer?

Retailers often give beef cuts special names that differ from store to store. The fanciful names are the retailer's answer to consumer demands for boneless cuts and are usually applied to cuts that need a push in selling, says Mrs. Esther Trammell, assistant professor of home economics at the University of Minnesota.

If you plan to buy any of these steaks, be sure you know how tender they are and how to cook them, Mrs. Trammell cautions. All cuts designated as steaks are not necessarily tender. Check also the price per pound as well as the price for the package. Meats were one of the first foods to bear the unit price on the label.

Mrs. Trammell explains where the various steaks come from in the beef animal:

Family steak. This is likely to be round steak and is usually boneless, cut 1-1/2 to 2 inches thick. Family steak may be cut from the inside of the leg, the large muscle often referred to as the top round, or it may be the bottom round. The top round is considered more tender than the bottom round. The price per pound for family steak is often 10 to 20 cents higher than for round steak of the same grade.

add 1--fanciful meat names

Penthouse steak. This is the smallest of the three muscles of round steak, often labeled eye of round. Don't confuse the eye of round with rib eye, which is much more tender and may retail for more than \$2 a pound. Although the eye of round is not as tender as the top round, it may sell for 50 cents more a pound than family steak. An eye of round weighing approximately a fourth of a pound each is large enough for an average serving, since the cut is boneless. A thick Penthouse steak should be treated with tenderizer or marinade before broiling.

Manhattan steak, His and Hers. The Manhattan steak may be cut from the top round, though in some markets the top round is marketed as His and Hers, with two servings in the package. The top round is moderately tender.

London broil. London broil is flank steak, often rolled and sliced crosswise. Sometimes it is rolled around a strip of suet. Frequently the flank has been mechanically tenderized before rolling.

Breakfast or sandwich steaks. These thin steaks may come from the sirloin tip which lacks the tenderness of the rest of the sirloin. Because these steaks are thin, they are easily overcooked. Flavor may be good, but quality is disappointing if you expect a sirloin steak. Cost averages at least \$1.59 or \$1.69 a pound.

Hollywood fillet. This is usually cut from one of the muscles of the sirloin tip.

Bronco, Ranch, Texas steaks. These are all cut from the chuck. The Bronco steak is a boneless chuck steak weighing about 1-1/4 pounds. The ranch steak has a blade bone, sometimes appearing as a figure 7. Bronco steak is considerably higher priced per pound than steak labeled simply chuck.

add 2--fanciful meat names

Arm steak. Arm steaks are from the chuck and have a round bone similar to the bone in round steak. The arm steak can be identified because it contains more muscles than the three in the round steak. If the arm steak is cut thick, it may be labeled Swiss steak.

Charcoal steak. Charcoal steak could be almost any cut the retailer wishes to give that label. If you are interested in a steak for broiling, be sure there is marbling within the muscle and check the U.S. quality grade.

Mrs. Trammell gives this advice to consumers who wish to get the most for their money when buying meat: Always check the price per pound and calculate the cost per serving. Observe the amount of bone in the cuts you buy, remembering that you pay for bone as well as lean meat. Keep in mind, too, that lean meat yields the same nutrients whether it comes from the tender loin section or the less tender chuck or round.

# # #

138-jbn-71

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and Agricultural Journalism  
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Immediate Release

## QUARRELING CAN BE CONSTRUCTIVE

Ever thought of a marital quarrel as being constructive?

Ronald Pitzer, extension family life specialist at the University of Minnesota, maintains that it can be.

Couples should recognize that a certain amount of difference and disagreement are to be expected in marriage, says Pitzer. Conflict in marriage is not only common; it is almost universal. Since a husband and wife are distinctive persons living together in an intimate, shared life, there are bound to be differences in thinking, desires, attitudes and feelings.

There are many reasons for marital quarrels -- differences in temperaments, in male and female attitudes, immaturity, physical, psychological or emotional upsets, cultural variations and competition between husband and wife for superiority.

Quarrels in the first year serve to bring the parties face to face with the realities of their marriage. Some conflict helps to remove the blinders from their eyes and enables them to appreciate one another as persons rather than as imaginary incarnations of perfection, says the University family life specialist. If romantic illusions have been built up, a productive quarrel brings the newlyweds down to earth.

Arguments between husband and wife or parent and youth can be helpful if they relieve tension, clear up misunderstandings, solve problems and achieve compromises and greater cooperation in making decisions. When conflict brings the family closer together and strengthens family unity, it is constructive.

-more-

add 1--quarreling

Some types of conflict, however, are destructive, increase bitterness and tension, stimulate hard feelings and alienate husband from wife or parents from youth. Families should avoid these types of conflict at all costs, since they solve nothing, but instead magnify problems which already exist.

Family fighting leads to creative results only if certain rules are followed.

Pitzer gives some of these rules:

- . Find out what you're really fighting about. Often some irrelevant detail--like where to hang a picture--touches off emotions and creates an explosion. A later post-mortem, separately or together, may be necessary to find out the true reason for the hostility. If fights over trivia occur persistently, you may need outside help.
- . Keep to the subject. Don't drift off into an orgy of general name-calling and abusiveness. Piling up accusations only confuses the issue. Let the marriage partner know very specifically what you're angry about and why.
- . Remember that conflict is a two-way process. What did you contribute to the quarrel? Listen to what your marriage partner is saying and let him--or her--make his point, too.
- . Bear in mind that feelings are of particular importance in husband-wife situations; cold logic does not warm the heart. Be sensitive to the feelings and moods of your mate and listen to their thoughts and ideas.
- . Keep your quarrels private as far as possible. Avoid fighting in the presence of children.
- . Remember that in intimate relationships, the purpose of conflict is to improve the long-run give-and-take of marriage.
- . Make up in the grand manner. This is the time for free and full forgiveness. If, through an experience of difference honestly expressed and triumphantly resolved, you have really come closer together, you have good reason for celebration.

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140-jbn-71

Department of Information  
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St. Paul, Minnesota 55101  
July 19, 1971

To all counties

ATT: EXTENSION HOME ECONOMISTS

Immediate release

HOW MUCH CREDIT  
CAN YOU AFFORD?

How can you determine to what extent you should use your charge accounts, how much to buy on the installment plan or to borrow in cash? What is your capacity to buy on credit?

Mrs. Edna Jordahl, extension home management specialist at the University of Minnesota, suggests some ways of determining how much credit you can afford.

Figure your total income, either by the month or by the year. An estimate of family expenditures necessary for the same period will be helpful in finding the balance of cash remaining. This difference is your family's capacity for carrying credit, Mrs. Jordahl says. Don't forget all fixed expenses such as insurance premiums, previous credit charges or payments on old debts when you estimate family expenditures.

There is always the possibility that an emergency or unexpected event will require additional cash. To make an allowance for emergency, don't overestimate your income. Next, be somewhat generous in estimating expenditures. And be sure to have an emergency fund. Such a fund may be only one to three months' income or an amount equal to half the annual income.

It's always comforting to know money is available, should a need arise, Mrs. Jordahl points out.

-jbn-

## *Food for Better Health Program*



An Expanded Food  
and Nutrition Education Program  
in Home Economics Extension

Department of Information  
and Agricultural Journalism  
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University of Minnesota  
St. Paul, Minnesota 55101  
July 19, 1971

To all counties

ATT: Extension Home Economists

Immediate release

### BROILED FOODS FULL OF FLAVOR

'Tis the season to cook outside--whether over a vacation campfire or over a fancy grill. You may be one who uses the broiler of your range all during the year, so the move to outdoor cooking is simple for you.

Many kinds of foods can be broiled fresh, tender fruits and vegetables, as well as some canned fruits, such as pear and peach halves and pineapple slices. Tender cuts of beef and lamb or ground beef and lamb. All kinds of fish and young chickens. Cured pork is the only kind of pork to broil because fresh pork needs longer cooking to be safe for eating.

Here are a few suggestions to make broiling meat a little easier:

- \* Trim off the extra fat so it will not spatter.
- \* Slash edges so meat will not curl.
- \* Brush chicken and fish with melted butter or margarine.
- \* Season meat patties as you would for any cooking.
- \* Broil on one side until brown.
- \* Turn most food only once. But, remember to turn chicken several times.

And do not turn thin slices of fish.

- \* Finish broiling on the second side.
- \* Season and serve at once.

Broiled foods lose little food value. Broiling brings out all the juiciness and flavor in food. And good broiled food is juicy inside, crispy on the outside and full of flavor.

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St. Paul, Minnesota 55101  
July 19, 1971

4-H NEWS

ALL COUNTIES

IMMEDIATE RELEASE

4-H'ERS MUST KNOW  
SHOW RING ETIQUETTE

Have you noticed that most experienced 4-H horsemen could compete in a class without any instructions from the ringmaster?

They could do this because they have learned the proper etiquette for horse showing. Every class follows the same basic pattern in order to present a horse to the judge in the best manner possible. This assures, too, that each horse is put through the same test under similar circumstances.

For example, most pleasure classes will enter the ring at a trot. The judge will then call for a walk, trot, walk again, then canter. The horses reverse directions and follow the same procedure. The experienced showman knows approximately how long the judge will keep the horses in a particular gait and learns to second guess the next command of the judge. This allows the showman to smoothly set up his horse for the next gait.

Most of the top exhibitors are dressed similarly. The showman should always complement the horse, not compete with it. Since the judge can't see the rider's posture if his clothing is loose or floppy, make sure your clothes fit smoothly to show off your good posture. And clothing should always be appropriate for the seat you're riding.

Much more important than expensive clothing is clean clothing. If it's essential that the horse have a clean coat and hooves, why not the rider or showman?

-more-

add 1--show ring etiquette

Overshowing is a real problem for many exhibitors. In 4-H shows, whips aren't allowed in halter classes, so don't rely on one to perk up your horse's ears. Tossing dirt to get your horse's attention irritates some judges. The beginner's mistake of riding too fast through the crowd to give the judge "one more look" can be dangerous and certainly won't gain any points with the judge.

Failure to follow safety procedures is a sure way to make a bad impression with the judge. Never stand directly in front of your horse, and don't roll up the lead shank. Always stay at your horse's shoulder when leading him and don't follow too closely behind the horse in front of you.

One mistake frequently made in the show ring is day-dreaming when you should be paying strict attention to your horse, the ringmaster and the judge. Showing is work, not play. Continuing on the incorrect lead in a pleasure class is one of the most annoying mistakes a rider can make. Posting on the wrong diagonal is also a careless mistake.

Never pull your horse over to the rail or into the center of the ring without first checking whether you'll bother another horse. Nothing is more irritating than having to stop your horse because someone suddenly pulls in ahead of you.

Finally, don't be a grouchy loser. Remember that if the same horse won every time under all judges there wouldn't be a need for more than one show. If you don't win this week, you can always look forward to the next show.

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July 19, 1971

4-H NEWS

ALL COUNTIES

IMMEDIATE RELEASE

4-H HORSEMEN  
COMPETE AT  
STATE FAIR

\_\_\_\_\_ outstanding 4-H horsemen from \_\_\_\_\_ County will  
(number) (name)

participate in the first 4-H horse show and horse judging contest at the Minnesota State Fair. The event is scheduled for Thursday, August 26.

4-H'ers competing in the horse show are: (give names, and addresses).

Members of the \_\_\_\_\_ County horse judging team are: (give names and addresses).

This is the first year a state wide show will be held at the State Fair. Regional shows without a final state competition have been held in previous years.

"The state show will provide a wholesome, competitive, away-from-home experience, with other 4-H members in fitting, showing and judging horses," says Wayne Carlson, assistant state leader 4-H and youth development at the University of Minnesota.

The horse show will begin at 9 a.m. in the Hippodrome with halter showmanship, horsemanship, Western and English pleasure and pole weaving. All classes except pole weaving will be judged and placed in blue, red or white ribbon groups. Trophies will be presented to the top exhibitor in each class.

The horse judging contest will start at 8 a.m. in the Hippodrome and continue until 9 a.m. covering four non-reasons classes. Judging will resume at 2 p.m. with two classes with oral reasons.

The state horse show provides an opportunity for associated industry and organizations to support a meaningful event for young people, according to Carlson. The public will also have a learning opportunity as spectators.

The public is invited to attend both the horse show and the judging contest.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
July 19, 1971

To all counties  
Immediate release

LAKESHORE PROPERTY  
OWNERS' ASSOCIATIONS  
CAN BE HELPFUL

A lakeshore property owners' association can play an important role in improving inadequate sewage disposal systems.

An association can urge county officials to enact ordinances which comply with the statewide standards for shoreland management. The association also can insist that local installers comply with the Department of Health sanitary code so that sewage disposal systems now being installed won't need to be replaced within five years.

To design an adequate sewage disposal system, percolation tests must be performed, says Roger Machmeier, extension agricultural engineer at the University of Minnesota. A proper sewage disposal system includes an adequate size, watertight septic tank and enough distribution trenches to dispose of the effluent. The required length of the trench is based on the results of the percolation test and the amount of sewage effluent.

Lakeshore property owners should note that septic tank effluent can be pumped to higher elevations and away from the lake at a relatively small expense, Machmeier says. This procedure is often necessary to locate the effluent disposal area far enough from the lake and above the water table.

Some lakeshore property owners' associations have used dye tests to trace sewage effluents. One-half ounce of dye flushed down each drain will show up in the lake if the sewage disposal system is inadequate. But even if the dye does not appear in the lake, this is not conclusive proof that the system is adequate, Machmeier cautions.

add 1--lakeshore property

The bottom of the distribution trenches must be at least four feet above the water table and the disposal area must be the proper distance from the lake--50 feet for general development--75 feet for recreational--and 150 feet for natural environment lakes and streams.

Machmeier says lakeshore owners' associations can hold informational meetings and distribute educational bulletins such as Extension Bulletin 304, "Town and Country Sewage Systems," This bulletin also is available from county extension offices and the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

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St. Paul, Minnesota 55101  
July 19, 1971

To all counties

Immediate release

BUM LAMBS  
CAN BE  
PROFITABLE

New milk replacers for ewe's milk are helping farmers to convert bum lambs into profitable sheep, say University of Minnesota animal scientists R. M. Jordan and Peter W. S. Chiou.

Currently, about 50,000 of the 500,000 lambs born yearly in Minnesota die-- largely because they receive inadequate milk.

The animal scientists offer these tips when attempting to save surplus lambs or when it's evident the ewe has inadequate milk:

\* Let the lamb suckle its dam for one to two days. On the second and not later than the third day, decide which lamb to remove from the dam.

\* Give the lamb nothing to eat for six or eight hours so it is hungry. Put it in a starting pen with a nipple protruding into the pen. Use a gravity flow nipple or any kind of nipple which will make milk available to the lamb with a minimum of effort. Help those lambs who wander around the pen and have a hard time of finding a nipple.

\* Do not put new lambs in a pen with lambs that are already well started.

\* Have a starting pen and put one to two lambs in a pen with a nipple available for each. After a day or two regroup them into pens of four to five lambs. When the lambs are a week old and doing well put them in groups of 10 or 15.

\* Group the lambs according to age and size.

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July 19, 1971

To all counties  
Immediate release

POST-MILKING TEAT DIP  
PREVENTS UDDER INFECTION

Experiments at the University of Minnesota have shown post-milking teat dip to be quite effective in preventing mastitis in dairy cattle.

Average loss of milk in experimental herds was found to be 3.5 pounds of milk daily on one infected udder quarter. This figures to be a loss of \$53.07 yearly in milk production from one infected quarter alone said Dairy Scientist G. D. Marx who conducted the research at the University's Crookston station.

By tipping teats in a ten parts per million solution of tamed iodine, new infections were significantly reduced. Teats dipped in the solution had a 41.2 percent decrease in new infections the first year and a 31.8 percent reduction in infections the second year, he said.

Nearly one third fewer treatments for mastitis were needed for quarters dipped as compared to non-dipped quarters in a two year period, he said.

The teat dipping after each milking, however, failed to eliminate existing or old infections.

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July 19, 1971

To all counties  
Immediate release

IN BRIEF. . . .

Dairy Feed Systems. If your dairy herd is not reaching its full milk potential in summer, it may not be due to the feeding system. The feed requirements of the dairy cow can be met by supplementing the forage with enough of an adequate grain mixture.

A Wisconsin study showed daily milk production per cow on strip grazing, green feeding, or stored feeding to be almost identical--39.4, 38.3 and 38.7 pounds, respectively, when supplemental grain feeding was adjusted to meet the nutrient requirements not obtained from the roughage. Advanced maturity, dry weather and decreased availability of the forage call for an increase in the amount of grain fed to replace lost nutrients and maintain maximum milk production.

\* \* \* \*

Southern Corn Blight. Southern corn leaf blight has been identified in 14 Minnesota counties as of July 16. However, the disease is still at a very low level in the state and its future development will depend on weather conditions. Counties where southern leaf blight has been identified include Brown, Murray, Dodge, Nobles, Faribault, Olmsted, Goodhue, Fillmore, Rice, Ramsey, LeSueur, Washington, Martin and Cottonwood.

\* \* \* \*

Pasture Program For Horses. A good pasture program for horses can be a valuable addition to modern horse husbandry says University of Minnesota Animal Scientist Robert M. Jordan. But it's not worth the risk unless it provides sufficient low cost feed to offset parasite hazards, and fencing and danger problems, Jordan says. Forage species are important in a horse pasture and Jordan recommends a legume-grass combination such as timothy and alfalfa or bluegrass and alfalfa. Fertilizer increases pasture yield, nutrients and lengthens the grazing season. Fencing can be electric, barb or woven wire. If an electric fence is used, it should be of the type that can't short out. With a barb wire fence, there is always a danger of the horses being cut.

\* \* \* \*

-more-

add 1--in brief

Attend to Home Garden. If you want a continuous supply of good quality vegetables from your garden, you'll have to attend to some details after planting. Weeds and pests must be controlled and proper cultural conditions provided throughout the season. Thinning vegetables and watering them during dry periods will bring good returns. Get Extension Folder 167, Revised 1970, "Summer Care of Vegetable Gardens," from the \_\_\_\_\_ County Extension Office or the Bulletin Room, University of Minnesota, St. Paul, Minn., 55101.

\* \* \* \*

Replenish Nutrients. Nutrients removed from the soil by early crops should be replenished before you sow the next crop on the same area. A complete fertilizer applied at the rate of one pound per 25 feet of row may be used, says Orrin Turnquist, University horticulturist. If a larger area is to be replanted, apply three or four bushels of well-rotted manure or three pounds of complete fertilizer per 100 square feet. Insure good germination of late-planted seeds by mulching the rows with finely chopped straw or ground corncobs to prevent the soil from baking and to keep the ground moist.

\* \* \* \*

Use Sprinkler in Garden. Use a sprinkler or a porous canvas hose to water your vegetable garden. Remove the nozzle and allow the water to run onto a stone or small board to keep the soil from washing and to thoroughly soak the soil. A thorough soaking to a depth of at least six to eight inches should be enough for a week or 10 days.

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St. Paul 55101 Tel. 373 -0710  
July 19, 1971

Immediate Release

## UM VETERINARY MEDICINE DEAN RECEIVES PUBLIC SERVICE AWARD

Detroit, Mich. --Dr. William T. S. Thorp, dean of the College of Veterinary Medicine at the University of Minnesota, received the 1971 Public Service Award from the American Veterinary Medical Association here today (Tuesday, July 20).

The award recognizes veterinarians in education and government who have made outstanding public service contributions to agriculture and public health. Dr. Thorp has served on many national committees and advisory groups concerned with livestock diseases, public health, laboratory animal care and comparative medicine.

The award was presented at a joint meeting of the Canadian and American Veterinary Medical Associations.

He has been an advisor to the Secretary of the United States Department of Agriculture as a member of the Science Advisory Committee. He also has been a member of the National Council on Health Manpower Educational Facilities for the National Institutes of Health. He has also served as a consultant and member of the National Council on Research Facilities of the National Institutes of Health.

Dr. Thorp has received numerous awards and citations including the Distinguished Service Award of the Veterinary Medical Alumni of the University of Minnesota in 1967, the Distinguished Alumni Award from Michigan State University in 1960, the Griffin Award for Distinguished Service from the American Association for Laboratory Animal Science in 1965 and the Pfizer Award from the National Civil Defense Council in 1960.

-more-

add 1--veterinary medicine dean

He has been a member of the National Advisory Board and Resources Committee of NIH, was president of the National Board of Veterinary Medical Examiners starting in 1962, was chairman of the Joint Committee on Veterinary Medical Education for the American Veterinary Medical Association and the Association of American Veterinary Medical Colleges, was secretary-treasurer of the National Society for Medical Research and was on the board of directors of the North Star Research and Development Institute.

He was named to his present position in 1954 when he joined the University after seven years as chief of comparative pathology and director of research services at the National Institutes of Health (NIH). Prior to his NIH work, Dr. Thorp taught and did research at Pennsylvania State University from 1938 to 1947.

Dr. Thorp was born in 1914 in Edmonton, Alberta, Canada. He received his doctor of veterinary medicine degree from Michigan State University in 1935 and then earned a master of science degree in animal pathology in 1937, also at Michigan State.

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July 19, 1971

Immediate release

#### 4-H WILL HOLD ART WORK-IN FOR TEENS

A week-long 4-H camp for teens interested in art will be held August 15 to 21 at the 4-H Building on the State Fair Grounds.

Thirty teens between the ages of 15 to 19 who have had some experience in art will attend the camp directed by Darrol Bussler and June Schultz, 4-H and youth assistant program specialists at the University of Minnesota.

"The teens will gain valuable experience working with many different art materials and various art problems," according to Sue Fisher, assistant state leader 4-H and youth development at the University of Minnesota.

Field trips in areas of commercial, decorative and fine arts are planned for the teens. Social activities include tours, trips, cookouts and experience in Twin City cultural activities.

A \$30 scholarship is awarded to each 4-H'er attending the camp by the Folger Coffee Co. The program is conducted by the Agricultural Extension Service of the University of Minnesota.

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137-11h-71

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July 21, 1971

Immediate Release

## SPRAYING FOR SCLB MAY PAY OFF UNDER SOME CONDITIONS

Spraying for southern corn leaf blight (SCLB) may pay off for growers who expect high yields and spray at the right time, Extension Plant Pathologist Herbert G. Johnson at the University of Minnesota said today.

High yields would be about 130 to 150 bushels an acre. A good number of crops this size are expected this year, Johnson said.

Corn should be sprayed for the disease from the tasseling to early dent stages; however, if the disease is building up, spraying should start even before tasseling.

Last fall scientists recommended spraying for the blight only on high-value seed production fields, but this year experts are saying that spraying could pay off under some conditions related to the disease and the crop.

Cases of SCLB this season in Minnesota have been confirmed by laboratory analysis in 17 counties in the southern part of the state.

Spraying for SCLB should be programmed at three to five applications, depending on the start and finish of the spraying program, Johnson recommended.

Aerial applications are recommended especially when the corn is too high for high-clearance equipment. The spray plane should be sufficiently equipped to put out five gallons of total spray an acre. Less than that may not do the job, he said.

Information on chemical sprays is available from county agricultural extension offices. Growers who decide on spraying should check carefully to be sure that materials used are registered for the various uses that might be made of the crop, Johnson suggested.

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144-daz-71

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July 21, 1971

Immediate Release

## HOUSING, FOOD TAKE BIGGEST BITE IN FAMILY SPENDING

Food and housing take the biggest share of family income, with the smallest amount going to education, books and magazines in the average household.

What your family spends for various needs and wants is determined by such factors as income, size of family, values, personal resources, location in the country and interests, Mrs. Edna Jordahl, extension home management specialist at the University of Minnesota, points out.

Family is unique when it comes to spending money, yet many families like to compare their expenses with those of other people. Periodically national spending patterns for an "average" American family are determined by percentage of income. If you are interested in comparing your expenses to the average, Mrs. Jordahl gives these figures:

Food--15 to 40 percent

Housing--15 to 30 percent of gross income

Household operating expense--5 to 15 percent

Clothing--8 to 15 percent

Transportation--8 to 15 percent

Savings--5 to 15 percent

Medical costs--2 to 10 percent

Recreation and vacation--2 to 10 percent

Education, books, magazines--2 to percent

Personal allowance--2 to 6 percent

142-jbn-71

Department of Information  
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Institute of Agriculture  
University of Minnesota  
St. Paul, Minn. 55101  
July 21, 1971

Immediate release

### THREE FOREIGN VISITORS TO STUDY 4-H IN MINNESOTA

Three foreign adult youth leaders will spend about three months observing 4-H in Minnesota this summer.

They are Rosetta Tetebo, Ghana; Wuu-Guang Chen, Taiwan, Republic of China; and Apollo A. Okendo, Kenya.

Miss Tetebo is an agriculture officer in the Ministry of Agriculture, Ghana. She has spent four years in the United States attending Kansas State University where she received a B.S. degree in home economics. She arrived in Minnesota on June 30 and is presently working with the 4-H program in Pennington County.

Miss Tetebo will become familiar with the structure and operation of the state 4-H program and use this knowledge to formulate a 4-H program for Ghana. She will leave for her home country October 9 after attending a seminar in Washington, D.C., on food supplies and population.

Chen arrived in Minnesota July 19 and will spend six weeks in Aitkin County observing 4-H. He is the 4-H supervisor of the Taiwan Provincial Farmers Association. Chen has a B.S. degree in agriculture. His home farm covers 36 acres where he raises rice, sweet potatoes, bamboo and hogs. His special interests include 4-H and other educational youth programs, mechanization in farming, and processing and marketing of farm products. He enjoys reading, traveling, picnics, playing baseball and camping with his wife and two children.

add 1--foreign visitors

Okendo is an agriculturalist for the Ministry of Agriculture in Kenya. He arrived in Minnesota July 19 to spend six weeks each in Winona County, (July 20-Sept. 6) and Watonwan County (Sept. 7-Oct. 15). He studied at the Embu Institute of Agriculture and the Farm Management Institute in Kenya. He raises coffee, tea, maize and cattle on his eight-acre farm. He is interested in the organization of rural youth clubs, teaching methods, cooperative marketing and home improvement and nutrition. His leisure interests include dancing, music, photography, and collecting stamps. Okendo is married and has three children.

Miss Tetebo's trip is being sponsored by the Agency for International Development in the United States Department of Agriculture. Both Chen and Okendo are sponsored by the Professional Rural Youth Leader Exchange (PRYL) program conducted by the National 4-H Club Foundation in behalf of the Extension Service.

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142-11h-71

Department of Information  
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St. Paul, Minnesota 55101  
July 22, 1971

SPECIAL

To Southwestern Minnesota

## SOUTHWESTERN PROBLEM PROMPTS WATER DISTRICT PROBE

Southwestern Minnesota is one of many agricultural areas in the United States where more water generally is needed for farmsteads than is available from the underground supply.

The area's limited underground water supply becomes more evident as livestock production becomes more concentrated on individual farms, resulting in a greater demand for water, according to Jackson County Extension Agent Raymond W. Palmby.

The limited water supply is already a factor hindering the growth of livestock enterprises on some farms and as a result individual farm families are looking into the possibility of developing a community water supply district. But water districts have not been established in Minnesota.

Palmby has prepared a study of rural water supply districts in Kansas and Missouri where residents have banded together to develop a common water supply by piping water from farm to farm or home to home.

Palmby's 28-page report is available from the Jackson County Extension Office, Main Street, Lakefield, Minnesota 56150.

Rural water supply districts in the two states "are not without their problems, but they are fulfilling a real need in that area," Palmby said. The Jackson County agricultural agent made no recommendations on the feasibility of establishing a water district in southwestern Minnesota, but he urged that the matter be studied further before any decisions are made.

Palmby found that the general opinion in Kansas was "if the required amounts of water can be purchased for not more than 40 cents per thousand gallons, a district is ahead to purchase the water rather than have its own wells."

add 1--water supply districts

In Jackson County, the shortest underground water supply appears to be in Ewington Township; however, farmers in other areas of the county, particularly Wisconsin Township, report occasional difficulty in obtaining sufficient quantities of water, Palmby said.

Despite Minnesota's wealth of water, some areas and users face periodic water shortages. In 1961 agricultural economists at the University of Minnesota reported that "...the water level is falling in the wells of some cities in southwestern Minnesota and it is becoming necessary to be more selective in locating new wells."

At that time, economists C. O. Nohre and Philip M. Raup suggested that planning and a more comprehensive policy were needed to resolve such problems as the falling ground-water level commonly found in southwestern and western Minnesota and the possibility of depletion in other areas.

The state does not have a comprehensive water resources plan, but the State Soil and Water Conservation Commission is coordinating a study of the Southern Minnesota Rivers Basin area. Identifying resource and community development needs and potentials is a high priority item in the first phase of the study.

In a recent issue of the magazine, "The Furrow," Field Editor Steve McGill reported some successes with neighborhood water districts carried out with the help of Farmers Home Administration loans and grants.

In Crowley County, Kansas, one farmer used three-quarters of a million gallons of water a month that he received from a water district for his 500-sow hog operation. Before the district came in he was using a couple of two-horsepower electric pumps to move creek water, which carried silt, weed seeds and potential disease organisms into his hog lots. His lines sometimes plugged when he used the creek water to cool his hogs. The farmer now uses clean and clear water from the district.

add 2--water supply districts

Another approach to getting fresh water has been taken south of Springfield, Illinois, where six small communities banded together to build a dam, lake treatment plant and plastic-type delivery system.

Possible freezing of pipelines has made rural water delivery impractical in some areas. But an official of the Saskatchewan (Canada) Department of Agriculture reported that there is a system that re-circulates water in an 18-inch deep plastic pipe. As long as the water is moving it won't freeze. "Such technology could bring rural water districts farther north," McGill said.

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July 23, 1971

Immediate Release

## ASTRONAUTS, HOMEMAKERS TO BENEFIT FROM UM FOOD RESEARCH

Nutritious bits of food that look and taste like meat but don't require cold storage are being developed for space travel and home use by a University of Minnesota scientist.

But for Apollo 15 astronauts it will be much the same bill 'o fare as that on past flights with dehydrated foods, which compensate in convenience for what they lack in appeal, dominating the menu, according to University Food Scientist Theodore P. Labuza.

Labuza, who recently came to Minnesota from the Massachusetts Institute of Technology (MIT), Cambridge, Mass., said meat products for human consumption that contain low amounts of moisture but are not dehydrated and won't spoil without refrigeration should be available for home and space use in about a year.

Not only will astronauts benefit from greater variety in their outer space dining with the new products, but mothers will be able to give their children sweet substitutes for candy that will be highly balanced in protein, fat, sugar and vitamins, Labuza added.

Future astronauts --those that travel in the orbiting space laboratory --will have these new intermediate moisture foods to provide variety in their space diets. But the main staple for the orbiting space laboratory occupants will be canned foods with high surface tension so they don't fly off into space in the state of weightlessness associated with space travel.

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add 1--astronauts

Dehydrated foods will remain a part of the astronauts' space diets, even in the orbiting laboratory, Labuza added. A dehydrated "stew," resembling a small brown brick with yellow flecks in it, may turn many a would-be astronaut from a career in the wild blue yonder.

Labuza said he thought intermediate moisture foods would not be used on the next two space flights since the contracts already have been made for food for these flights. But "certainly there is a possibility" that intermediate moisture foods could be tested on the next two flights, he added.

The research is being conducted under grants from the National Aeronautics and Space Agency (NASA) and the Minnesota Agricultural Extension Service. Depending on future funding of the project, food products will be made for storage and flavor tests. NASA astronauts may visit the University's St. Paul Campus to taste the foods or the foods may be sent to the NASA Space Center in Houston, Tex., for the flavor tests, he said.

Labuza is working under his third contract with NASA to develop these intermediate moisture foods, which are a mixture of meat, dairy products, soy protein and sugar. Intermediate moisture foods, which contain about 20 percent moisture, already are on the market to a limited extent in the form of dog food that looks like chunks of meat and a breakfast item made by cereal manufacturers that looks like a flat tart.

"Health food addicts aren't going to like them," Labuza said of the totally manufactured intermediate moisture foods which contain chemicals.

Labuza began space food research under the NASA contracts in 1965 at MIT where he received a bachelor of science degree in food science and a doctorate degree in food technology. While at MIT, Labuza's research included development of a process to determine what kind of packaging is needed for dehydrated food to preserve it for a given storage time. Excess baggage was something the

-more-

add 2--astronauts

Air Force wanted to avoid, especially in the early days of the space program when the going cost was \$100,000 for each pound lifted off the ground. Now the cost has been reduced to about \$1,000 per pound of thrust.

Some dehydrated foods have two pounds of packaging that is essentially "garbage," the food scientist said. Unfortunately the government never incorporated the MIT findings since the packaged food has been purchased in advance and there were too few space flights left to try out the new method, he added.

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144-daz-71

Department of Information  
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St. Paul, Minnesota 55101  
July 23, 1971

#### PROMISING CAREERS IN AGRICULTURE

Agriculture offers some of the most promising career opportunities for young men and women today.

Nearly one in three persons in the United States is employed in agriculture and related industries. Harold B. Swanson, head of the Department of Information and Agricultural Journalism at the University of Minnesota, says this means a wide variety of career opportunities.

Swanson is the author of a new book entitled Challenging Careers in Agriculture. The new book is one in a special series written for junior high and high school students. It's published by Dillon Press, 106 Washington Avenue North, Minneapolis, zip code 55401.

Swanson maintains that agriculture is a growing, not declining industry. He says there's a shortage of trained people for many jobs. Although the number of farms is declining, other opportunities are more than replacing those lost in farming.

Swanson believes that careers in agriculture call for a wide variety of training. High school graduation is needed for some students, while others require technical school training or could benefit from the skills and understanding developed through college education.

Promising opportunities remain in farming and ranching. But Swanson says a new type of farmer or rancher must emerge before the year 2,000. By that time the U. S. will have to produce food for nearly 100 million more people--and it will have to be done on fewer acres of land.

And by the year 2,000 the world must produce food for 2½ billion more people in order to avoid widespread starvation.

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Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
July 26, 1971

To all counties  
Immediate release

TEXAS VIRUS MAY  
CANCEL STATE  
HORSE EVENTS

A virus disease in horses called Venezuelan equine encephalomyelitis (VEE) is a potential problem for horse people in every state including Minnesota, according to University of Minnesota Animal Scientist Robert M. Jordan.

As a result of the disease outbreak in Texas, some horse events in other states have been cancelled, such as the National Youth Horse Congress in Dallas, Texas originally scheduled for August 4-13. Although no horse events in Minnesota have been postponed yet, the possibility exists, Jordan said.

If the disease should spread north to Minnesota, horse events in the state probably would be cancelled, Jordan adds. The disease is spread by mosquitoes, not directly from horse to horse.

All horses in Texas are being vaccinated with an experimental vaccine developed by the U. S. Department of Defense and originally intended for human use. After the vaccine is administered, officials say it normally takes 14 days for immunity to develop in a horse.

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St. Paul, Minnesota 55101  
July 26, 1971

To all counties  
Immediate release

IN BRIEF. . . .

Hunt for a Good Boar. It's not too early to start looking for boars you'll need this fall. Look first for a herd that is on a good performance testing program that includes both test station and on-the-farm programs. Check the average performance of the boars in the herd to make sure it's well above that of your herd. Buy the best boars you can afford from the performance tested herd on the basis of their records. Check each herd thoroughly to make sure there are no health problems.

\* \* \* \*

Use Compost in Garden. Improve your garden soil and get rid of unwanted plant materials by building a compost heap, University of Minnesota soil scientists suggest. Any non-woody plant material, such as grass clippings and tree leaves, can be made into compost or synthetic manure by bacteria in the presence of moisture, nitrogen and some air. A mixing of the various plant residues is preferable since they break down more rapidly than either one alone. Supply nitrogen in the form of ammonium nitrate or a complete fertilizer high in nitrogen. Decomposition is hastened by ground limestone.

\* \* \* \*

Tractor Operators: Follow Traffic Rules. Highway rules apply to tractors and farm implements as well as cars and trucks. Come to a full stop when taking a tractor or other implement onto a highway, and don't proceed until the way is clear. Stay on your side of the road once you get on the highway.

\* \* \* \*

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add 1--in brief

Observe Grass Height. Mow your lawn when it is no taller than one inch above regular cutting height, Donald B. White, University horticulturist, said. If you maintain your lawn at 1½ inches, cut it whenever the grass reaches 2½ inches. During summer's hot, dry period, raise the cutting height to 2-2½ inches, reducing it again in fall. Mow in the fall until growth stops, some time in November. Leave the lawn at or near its regular height before winter starts. You can leave clippings on the lawn, but remove any long, wet or packed clippings. Always pick up all sticks, stones, wire or other debris before each mowing.

\* \* \* \*

Mower Advice Given. A sharp rotary mower is satisfactory for most lawn care. When using a rotary mower, never point the discharge toward people. You assume a great risk by allowing children to use a rotary mower. As a safety precaution, collect clippings in a bag attached to the mower. Turn the motor off whenever you remove or replace the bag. Disengage the spark plug wire when the mower is not in use or when you're cleaning or working on it. For more information, see "The Home Lawn," available from the \_\_\_\_\_ County Extension Office or the Bulletin Room, University of Minnesota, St. Paul, 55101.

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University of Minnesota  
St. Paul, Minnesota 55101  
July 26, 1971

To all counties  
Immediate release

SPRAYING FOR  
CORN BLIGHT  
MAY PAY OFF

Spraying for southern corn leaf blight (SCLB) may pay off for growers who expect high yields and spray at the right time.

High yields would be about 130 to 150 bushels an acre. A good number of crops this size are expected this year, according to Extension Plant Pathologist Herbert G. Johnson of the University of Minnesota.

Corn should be sprayed for the disease from the tasseling to early dent stages; however, if the disease is building up, spraying should start even before tasseling.

Last fall scientists recommended spraying for the blight only on high-value seed production fields, but this year experts are saying that spraying could pay off under some conditions related to the disease and the crop.

Cases of SCLB this season in Minnesota have been confirmed by laboratory analysis in 17 counties in the southern part of the state.

Spraying for SCLB should be programmed at three to five applications, depending on the start and finish of the spraying program, Johnson recommended.

Aerial applications are recommended especially when the corn is too high for high-clearance equipment. The spray plane should be sufficiently equipped to put out five gallons of total spray an acre. Less than that may not do the job, he said.

Information on chemical sprays is available from county agricultural extension offices. Growers who decide on spraying should check carefully to be sure that materials used are registered for the various uses that might be made of the crop, Johnson suggested.

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St. Paul, Minnesota 55101  
July 26, 1971

To all counties  
ATT: EXTENSION HOME ECONOMISTS  
Immediate release

AUGUST IS  
SANDWICH TIME

Wheat products head the list of plentiful foods for August, appropriately enough since August is Sandwich Month.

Besides bread, wheat products include macaroni, spaghetti, and noodles. When you buy these products, check the label to see that they are enriched to be sure you get the most food value for your money, suggests \_\_\_\_\_, \_\_\_\_\_ County extension home economist.

Other foods on the August plentiful list are milk, broiler-fryers, summer vegetables, fresh plums, fresh pears, cranberry sauce and juice and peanuts and peanut products.

Prices of broiler-fryers are expected to remain at reasonable levels because of the abundant supply. These young chickens are perfect left whole for rotisserie cooking or cut into halves or quarters for the grill. To accompany grilled, fried or roast chicken will be plenty of cranberry sauce.

Fresh summer vegetables from home and market gardens will be seasonally plentiful during August--especially sweet corn, tomatoes, carrots and celery.

California's fresh plum crop is forecast at 57 percent larger than in 1969. Purple plums, also called Italian prunes, are expected to be especially abundant. A near-record harvest and reasonable prices are forecast for pears.

This year's large peanut crop may be a record, resulting in an abundance of peanuts and peanut products. There will be no lack of peanut butter for the favorite sandwiches of the younger set.

Keep the August plentiful foods in mind when you do your shopping. They are likely to be good buys, \_\_\_\_\_ says.

## *Food for Better Health Program*



An Expanded Food  
and Nutrition Education Program  
in Home Economics Extension

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
July 26, 1971

To all counties

ATT: Extension Home Economists

Immediate release

### POINTERS GIVEN ON HAIR CARE

Have you ever wondered how often you should wash your hair?

\_\_\_\_\_, County extension home economist, says it's a personal question each person must answer.

A good rule to go by is to wash your hair when it feels sticky, goes limp or looks dull and oily. Using too much spray or not rinsing your hair carefully may make it feel sticky. High humidity or lack of body in your hair can cause it to go limp.

Before you wash your hair, brush it carefully. Lean forward and hold your head down. Place the brush on your scalp and twist your wrist in as you pull the brush to the tips of your hair. Remove the brush gently. Keep brushing until your scalp tingles.

Take a few minutes to massage your scalp. Massaging causes oil to flow from the roots of your hair, keeps your scalp loose and makes it feel good. Using both hands gets your fingers under your hair. Begin at the back of your neck. As you hold your scalp tightly, move your fingertips in a circle up over the top of your head. Keep massaging until you have covered your entire scalp.

To wash your hair, use warm water and wet your hair well. Apply enough shampoo to make a suds. Rub your scalp with your fingertips and work up a good suds. Rinse away the suds with warm water. Add more shampoo and work up a second lather. Rinse your hair several times. It should squeak clean after the last rinse. Wipe your hair with a clean dry towel, then comb your hair with a coarse comb to get out the tangles. Now it's ready for your own styling.

Whether your hair is thick or thin, straight or curly, long or short, neatly combed, clean, healthy hair is always in style.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
July 26, 1971

4-H NEWS

ALL COUNTIES

IMMEDIATE RELEASE

COUNTY 4-H CLUBS  
TO HAVE BOOTH  
AT STATE FAIR

"Youth in action" booths will be featured at the State Fair this year for the first time.

These booths will be manned by 4-H'ers who will explain some aspect of 4-H work in their county to the public. Counties sponsoring a youth in action booth will set up their booths during their two-day encampment at the State Fair.

Youth in action booths along with standard 4-H booths will total 77 at the State Fair this year. The standard booths will be judged on their general appearance, power to attract and hold attention, 4-H message and quality of the materials.

\_\_\_\_\_ County 4-H activities will be represented by a (youth in action or standard) booth on the first floor of the 4-H Building. It portrays (describe).

The \_\_\_\_\_ County booth has been planned and built by (give name of club or individuals responsible).

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
July 26, 1971

4-H NEWS

ALL COUNTIES

IMMEDIATE RELEASE

4-H'ERS WILL HAVE  
BUSY SCHEDULE  
AT STATE FAIR

\_\_\_\_\_ County delegates to the State Fair will spend a busy two days learning about their project, meeting new friends and seeing the fair.

All 4-H exhibitors from \_\_\_\_\_ County except livestock exhibitors will attend the fair together from \_\_\_\_\_ to \_\_\_\_\_. All demonstrations, Dress Revue and Project Day activities for a county are scheduled during the county's assigned two days at the fair.

The two-day 4-H trips will make good use of resources and also provide new learning experiences for many 4-H'ers. Members are urged to do their 4-H "thing" (which gets them to the State Fair), and enjoy experiences with other youth. They will see 4-H demonstrations and projects in their particular area of interest and have time to see the fair on their own.

One of the important features of the trip for the 4-H'er is discussing his project exhibit or demonstration with the judge. The 4-H'er has an opportunity to explain his project goals to the judge and the judge counsels with the member on possible improvements of the exhibit or demonstrations.

Forestry project members will be exhibiting at the State Fair for the first time. The forestry exhibits will be science displays on any of the following themes: What is a tree? How does a tree grow? What are the features of wood? What happens after a tree dies? How do you identify species of trees? How do trees adapt to their environment? What is a forest?

Conservation project members won't exhibit but will attend a Project Day for new ideas and special interest in the project. The 4-H'ers will attend forestry lectures, tour the conservation building and see maple tree syrup and Christmas tree exhibits.

Livestock exhibitors will arrive at the fair on Friday, September 3, and horse exhibitors will compete at the fair on Thursday, August 26.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul 55101 Tel. 373-0710  
July 27, 1971

Immediate Release

#### 4-H HORSEMEN WILL COMPETE IN FIRST STATE HORSE SHOW

The first state 4-H horse show will be held Thursday, August 26, on the Minnesota State Fair Grounds.

Regional shows without a final state show have been held in previous years.

"The state show will provide a wholesome, competitive, away-from-home experience with other 4-H members in fitting, showing and judging horses," says Wayne Carlson, assistant state leader 4-H and youth development at the University of Minnesota.

The horse show will begin at 9 a.m. in the Hippodrome with halter showmanship, horsemanship, Western and English pleasure and pole weaving. All classes except pole weaving will be judged and placed in blue, red or white ribbon groups. Trophies will be presented to the top exhibitor in each class.

The state 4-H horse judging contest will also be held on August 26 in the Hippodrome on the State Fair Grounds, beginning at 8 a.m.

The horse show and the judging contest are open to the public free of charge.

# # #

146 jbn-71

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul 55101 Tel. 373-0710  
July 27, 1971

Immediate Release

## AQUARIUMS PROVIDE ECOLOGY LESSON WITH PROPER CARE

Many more persons than pet store owners care to concede relegate aquariums to attics within weeks of acquiring them.

These disallusioned hobbyists generally are short-term mourners of fish who were victims of mismanagement in their glass-encased environment.

"If man can't manage an aquarium successfully, how can he hope to cope with environmental problems many times greater on the planet earth?," is a question the hyper-pessimistic might be expected to pose.

Failures in aquarium management may not necessarily reflect on abilities at environmental tidiness. On the other hand, some exposure to an aquarium would provide a useful model to obtain a better understanding of the problems involving our environment, according to Dr. Kenneth H. Johnson, University of Minnesota veterinarian.

Maxi-ecological problems known on earth can exist in miniature relationships in these glass tanks much to the discomfort of the fish.

Water is to fish what air is to man. Sources of water pollution in the aquarium include waste materials from fish, and uneaten portions of food resulting from overfeeding. When pollution reaches abnormally high levels, the fish may die directly because of the toxic effect of the water or because poor water conditions make the fish more susceptible to disease, Dr. Johnson said.

add 1--aquariums provide

A major problem in the tank, particularly when alkaline water is used, is ammonia poisoning, a product of too much fish waste. Ammonia's effect on fish nerve tissue is manifested by paralysis or violent and erratic activity. Also, over a long period of time, the gills' surface coverings become thickened so that oxygen cannot enter the blood from the water. The fish hover close to the top of the water and may slowly suffocate. During this time the fish's overall resistance to disease is also lowered, Dr. Johnson said.

Buildup of toxic waste products such as ammonia can be reduced by not putting too many fish into the aquarium, by not overfeeding and by removing dead plants whenever they are spotted. To avoid overcrowding allow 20 square inches of space for each inch of the tropical fish's body or one gallon of water for each inch of the fish's body for other types of fish. Never feed fish more than they will eat in 10 minutes. All uneaten food should be taken away as soon as it is found.

Filters under the gravel promote bacteria growth that can convert ammonia into nitrates, which are non-toxic except in high amounts. But don't count on a filter to compensate for an overcrowded tank, Johnson advised.

The most efficient method of avoiding ammonia buildup is to periodically and regularly siphon off a portion of the aquarium water and replace it with fresh, de-chlorinated water of the same temperature. Change a quarter of the water every two weeks to prevent shock to the fish. Change the water more frequently if the aquarium is overcrowded, Johnson said.

-more-

add 2-- aquariums provide

Aside from the lesson in ecology, there are more basic reasons for not abandoning an aquarium to a dusty corner in the attic. The starting price for a fully equipped aquarium with a stand is about \$40. The less committed may wish to start with a goldfish and a bowl, which can be acquired at some variety stores for a total of less than \$3.

# # #

141-daz-71

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul 55101 Tel. 373-0710  
July 27, 1971

Immediate Release

#### STATE 4-H AMBASSADORS CHOSEN FOR 1971-72

Thirty outstanding youths have been named 4-H Ambassadors for 1971-72.

They will represent about 100,000 young people reached by 4-H programs in the state, according to an announcement from Leonard Harkness, state leader, 4-H and youth development at the University of Minnesota.

The 4-H'ers were selected on their leadership ability and 4-H project achievements. State 4-H Federation officers and officer candidates for 1971-72 are also included in the group.

The ambassadors will represent 4-H throughout the year at many community activities and business meetings and on radio and television programs. Ambassadors also assist with public relations assignments during the State Fair, 4-H Livestock Show and other local, state and national events.

The first duty of this year's Ambassadors will be participating in a 4-H Communications Workshop July 25-28 at the Pick-Nicollet Hotel, Minneapolis. Some of the objectives of the workshop are developing skills in speaking, understanding the importance of good communications and public relations, and increasing the understanding of the scope and depth of the 4-H program.

4-H Ambassadors for 1971-72 are Judy Aykens, Steen; Carol Bauer, Faribault; Leo Brown, Utica; Ann Marie Christenson, Atwater; Linda Diamond, Humboldt; Peggy Freeman, Starbuck; Steven Fresk, Hadley; Cathy Geurs, Hamel; Gary Hutton, Dundas; Rick Jauert, Luverne; Marlo Jay Johanson, Belgrade; Monica Kennedy, Pequot Lakes; David Kesty, Esko; Norman Krause, Eagle Bend.

Brent Larson, Mable; Becky Leuer, Wayzata; Doug Loveid, Cromwell; Karen Morris, Beardsley; Nancy Mrnak, Glenwood; Wendy Olson, Esko; Mary Rocchio, Hibbing; Duane Samuelson, Kensington; Kim Shaffer, Pipestone; Jim Simon, New Prague; Dave Sogge, Waubun; Ivan Sjoblom, Karlstad; Louise Swanson, Hastings; Julie Swenson, Nicollet; Larry Swenson, Lake Park; Charity Wolfe, Kiester.

145-jbn-71

Department of Information  
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Institute of Agriculture  
University of Minnesota  
St. Paul 55101 Tel. 373-0710  
July 27, 1971

Immediate Release

## SECOND BROOD CORN BORERS MOST DAMAGING ON LATE CORN

Treating field corn to control second brood corn borers could be profitable for some late maturing corn, but is not advised as a general practice, University of Minnesota entomologist John Lofgren said today (July 27).

"It's difficult to correctly time spray applications of insecticides since the eggs are laid over an extended time period. You could make several applications to make sure you spray when the eggs are hatching, but this would not be economically feasible," Lofgren advised.

He said first brood corn borers are entering the pupil stage about now, according to surveys by University and Minnesota Department of Agriculture entomologists. "This means the second brood should be out in force by the first part of August, and the week of August 7-15 will be the period of heaviest hatch," Lofgren predicted.

"Fields most heavily infested will be those with fresh silks and pollen at the time of egg laying. The second brood borers attack ears and ear shanks of late maturing corn which causes ear droppage, although stalk breakage also can result."

Fields infested with second brood borers should be harvested early to minimize losses. Information on spraying including recommended chemicals and rates is available from county extension agents in every county.

# # #

146-jms-71

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul 55101 Tel. 373-0710  
July 29, 1971

Immediate Release

#### KAUFERT CHALLENGES 'PRESERVERS' ON TREE USE

Rather than substituting metal and plastic for wood, we should insist where it is at all possible that these products be made from wood, Frank H. Kaufert, director of the University of Minnesota's College of Forestry, said.

Kaufert suggested that:

--The need for housing, which has been estimated at 25 million units in the next 10 to 20 years, should be required to be met with units made largely from forest products.

--The trend towards plastics in packaging needs to be reversed.

--Steel and fiberglass poles should be outlawed where treated wood poles serve equally well.

--Plastic paper should be banned as is being attempted with non-returnable bottles.

--Metal and plastic siding should be used only where wood will not serve.

--The wasteful research that continues on the development of a satisfactory substitute for the treated wood railroad tie should be discouraged.

So-called "preservers or preservationists" seek to protect trees and forests at the expense of "precious non-renewable resources" they recommend as substitutes, he said. "Where do they think plastics come from? All these materials are made by combining chemicals that come basically from the precious non-renewable fossil fuels. What are we going to use for fuel when these are gone?," Kaufert asked.

-more-

add 1--kaufert challenges

If man does not harvest trees, then they will be harvested by natural forces, such as fire, wind, insects and diseases. "If we do not use these ever-growing materials for man's necessary and insatiable needs, they are wasted in nature's processes for renewal. In their place we must use ever increasing quantities of those exhaustible resources of minerals and fossil fuels," he said.

# # #

146-daz-71

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul 55101 Tel. 373-0710  
July 29, 1971

Immediate Release

## UM RESEARCH COULD REDUCE THERMAL POLLUTION, BOOST CROP YIELDS

Less thermal pollution in streams and increased yields on irrigated cropland is the aim of a University of Minnesota researcher who will test warm waste water from electric generating plants to irrigate sandy soils.

"If the system proves workable, it could help reduce the amount of warm water discharged by power plants during the hot summer months when thermal pollution problems are most serious," said Evan Allred, an agricultural engineering professor.

"Although irrigation may not use the entire amount of warm water from a plant, the problem may be reduced substantially during peak summer months," he added.

Allred is starting a research project to see if subsurface irrigation with water at about 100 degrees will have a beneficial effect on plant growth by hastening plant germination in the spring and extending the growing season, "We also want to see if there's any frost protection value from using warm water to heat the soil mass," he added.

"The system should be economically feasible for electrical power plants since they need ways to reduce costs of meeting thermal pollution standards. For example, Northern States Power has several million dollars invested in cooling towers at its Monticello generating plant.

"Using the heated water for irrigation may not eliminate the need for cooling towers, but it will reduce operating costs during the key summer months.

add l--um research

The demand for electrical energy is increasing rapidly in all sections of the United States. These demands have created power shortages over large areas and some power companies are discouraging power use rather than advertising for added business. Demands for electrical power in the Twin Cities area are expected to double by 1980, Allred said.

"Although electrical generating plants may discharge the largest amount of warm water into Minnesota waters, many Minnesota industries have large capacity boilers or refrigeration units which discharge warm water into streams. This may raise the temperature of small streams by several degrees," Allred observed.

"In many Minnesota areas the soil conditions are ideal for the disposal of heated water. About 20 to 25 counties in central Minnesota have soils which could benefit from irrigation.

"If we could lengthen the growing season by even 2 or 3 weeks it would have tremendous economic benefits for farmers who grow sweet corn or tomatoes," he pointed out.

In the proposed study, the warm waste water will enter the soil system through a network of small diameter pipes underneath the soil surface. Using a traditional sprinkling system would result in heat loss from the water.

"We don't know if warm water will change the biological process of plant growth," Allred explained. "That's one of the chief objectives of the study, and we also hope to study the effect of warm water leaching through the soil surface to the groundwater. However, we don't anticipate any quality problems or changes in the groundwater.

"We also plan to study things such as the depth and spacing of the irrigation pipes for different soil types and different times of the year," he concluded.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 1, 1971

To all counties  
Immediate release

NORMAL DRYING HEAT  
DOESN'T DAMAGE  
HIGH LYSINE CORN

The amount of heat commonly used to dry corn does not damage the protein quality of high lysine corn, according to studies conducted with growing pigs at the University of Minnesota, St. Paul.

Research results were reported by animal scientists J. W. Nordstrom, R. J. Meade, J. E. Sowers and L. E. Hanson at the 63rd annual meeting of the American Society of Animal Science Sunday through Wednesday (Aug. 1-4) at the University of California, Davis, Calif.

Lysine and tryptophan, both amino acids, largely are responsible for the protein value of high lysine corn being better than normal varieties. Although lysine is vulnerable to damage from heating, tests up to 240 degrees Fahrenheit indicated that damage is unlikely unless the corn kernels are browned or scorched by high temperatures or prolonged exposure to lower temperatures.

University of Minnesota research has shown that protein supplements may be reduced 60 percent or more in rations for growing pigs if high lysine corn is fed from weaning to market weight. The actual saving in dollars for the hog feeder will depend on the difference in cost of corn and supplement.

# # # #

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and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul 55101 Tel. 373-0710  
August 2, 1971

Immediate Release

## SEVENTEEN ARTISTS WIN AT GRAND RAPIDS

Seventeen artists are winners of 24 awards in the 1971 Northern Minnesota Art Exhibition opening August 13 at Grand Rapids High School.

First place went to Gene Lysaker, Grand Rapids, and Carlo Stilinovich, Hibbing. Lysaker's pencil drawing is entitled "Amigos" and Stilinovich's acrylic, "Mystery."

According to Huldah Curl, University of Minnesota arts extension coordinator, judges James Roy, professor of art, St. Cloud State College and John Spurgin, assistant professor of art, Mankato State College and director of Gallery 500, made their decisions from among 88 entries.

Second place went to Frances Christian, Pine River, and to Stilinovich. Third went to Eilleene Kinney, Brainerd; and Frances Christian. Lysaker, Frances Christian and Eilleene Kinney also received merit awards.

Merit awards also went to Ruth Dagg, Pengilly; Harold Dodge, Bemidji; Irene Granholm, Cloquet; Frank Hoffman, Duluth; Jan Howard, Nevis; Avis Hughes, Crosby; Jack Ikola, Hibbing; Hazel Jonson, Warba; Maryan Kaminen, Keewatin; Tyne Mike, Grand Rapids; Margaret Peterson, Crookston; Dorothy Timmons, Walker; and J. Zasoski, Grand Rapids.

The show is open to the public from 9 a.m. to 9 pm. Friday and Saturday, August 13-14 and from 10:30 a.m. to 4 pm. on Sunday, August 15. Judges will give a public discussion of the awards at 3 pm. Sunday.

Show sponsors are the University of Minnesota's Agricultural Extension Service and General Extension Division, Grand Rapids Performing Arts Council, Itasca Art Association and Itasca State Junior College.

# # #

147-mko-71

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 2, 1971

To all counties  
4-H NEWS  
Immediate release

TEENS NEED  
MORE COMMUNITY  
INVOLVEMENT

Why aren't more teenagers participating in community activities?

Adult 4-H leaders think the type of community, the teens' interests, adult resistance and individual self confidence are the major factors which determine teen involvement or non-involvement in the community.

Adult leaders interviewed and observed 4-H'ers at the recent State 4-H Junior Leadership conference in order to learn if teens are involved in community affairs and decision making. The general finding is that most of the teens they interviewed aren't participating in community affairs.

"This is a particularly important conclusion because these 4-H'ers have shown their interest in group cooperation by joining 4-H and have also shown their leadership ability by becoming junior leaders," says Ron Pitzer, extension specialist in family life at the University of Minnesota. "If these teen leaders aren't very active in the community, a cross section of all teens probably would show even less community participation."

The degree of teen involvement depends upon many factors, said the 4-H leaders. The community itself often determines whether a teen can become involved. A small rural community can't afford a well stocked and staffed teen center which carries on many community projects. These small communities also have a shortage of jobs for youth so they are forced to find work in other towns.

Some teens have a very self-centered attitude toward life which excludes their interest in community involvement. They're concerned with school, dating, jobs and recreation. "They often fail to see the problems that other age groups have, yet expect the 'older generation' to always understand the teen's problems," Pitzer said.

## add 1--teen community involvement

Yet some teens who are genuinely interested in improving community relations are blocked by adult resistance, according to the adult 4-H leaders. Some adults think teens are irresponsible and refuse to give them a voice on the community policy-making committees. Some parents also block teens by discouraging community participation or just ignoring any work the teenager does in the town.

The adult leaders also found that self confidence is an important influence on the teen's participation. A more outgoing person readily accepts a leadership position. While working with others he develops more self confidence that helps him cope with decision making situations the rest of his life. On the other hand, the shy teen finds it hard to talk with his peers and especially adults, thus avoiding any leader position.

This is why adults must make a special effort to reach the shy individuals in an attempt to develop their potential, according to the 4-H leaders. Adult interest and leadership responsibilities give the teen more confidence, self worth and a feeling of competence in a responsible position.

"Despite the apparent lack of community involvement by teens, there is a higher proportion of concerned young people today than ever before," says Pitzer. "Adults and teens must work together to solve communication problems and improve the community."

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 2, 1971

To all counties

4-H NEWS

Immediate release  
(Other fill-in stories on State Fair  
will come to you each week)

COUNTY 4-H'ERS  
WILL DEMONSTRATE  
AT STATE FAIR

Demonstrations and the Share-the-Fun Festival will be the highlights of the  
Minnesota State Fair for several \_\_\_\_\_ County 4-H'ers.  
(Name)

Some \_\_\_\_\_ 4-H'ers from \_\_\_\_\_ County will be among 800  
(app. no.) (Name)

Minnesota youths chosen to give individual and team demonstrations at the State Fair.  
They are putting the final touches on their demonstrations, anticipating keen  
competition from other young people throughout Minnesota.

4-H'ers from \_\_\_\_\_ County are scheduled to demonstrate during two  
(name)  
successive days, \_\_\_\_\_ and \_\_\_\_\_. The demonstrations will be given  
(Dates)  
on the first floor of the 4-H building from 8 a.m. to 5 p.m. (If some of your  
4-H'ers are to give working demonstrations, mention names.) Demonstrations with  
live animals, however, will be on Labor Day as in the past, in the livestock barns.

A conference between judges, many of them extension agents, and the members who  
demonstrate will determine the rating the demonstration receives. This gives the  
4-H'er a chance to discuss his demonstration with the judge and learn how to improve  
his presentation.

Representing the county at the State Fair are these 4-H demonstrators: (give  
names, home town, projects and titles of demonstrations).

Participating in the Share-the-Fun Festival at 8:15 p.m. Wednesday, September 1,  
in the auditorium of the 4-H Building will be: (give names, addresses, and some  
information about their act).

The public is invited to view the demonstrations and attend the Share-the-Fun  
Festival in the 4-H Building.

## *Food for Better Health Program*



An Expanded Food  
and Nutrition Education Program  
in Home Economics Extension

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 2, 1971

To all counties

Immediate release

### SHOULD I BUY OR MAKE JAM OR JELLY?

When fresh fruits are plentiful most homemakers get the urge to make some jam, jelly or fruit butter for their families. These really make an ordinary piece of toast and butter sparkle on a cold, winter morning when a jaded appetite may need a lift.

But, can you save money making your own jam or jelly may be the question. It boils down to a few simple considerations:

\* Price of the fruit. If you have your own, this will not be a problem. A farmer may let you pick your own or pick on-the-shares and save.

\* Price of sugar, jars, paraffin, cooking pans and all other items needed.

\* Value of your time. You may plan to donate your time.

Here is an example: When grape jelly was made from bottled grape juice or frozen concentrate, the ingredients cost 19¢ for one 10-ounce jar of jelly. It would be less if you have your own grapes. A similar jar at the grocery cost 29¢. In this instance there is a saving.

Of course taken for granted is a good recipe and the cook reading and following all directions carefully. This is important.

There is the pride a homemaker has when she serves something she has made for her family. This pride may mean a great deal to you. Go ahead and do-it-yourself after you have considered the alternatives. Good luck!

-lsn-

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 2, 1971

To all counties

ATT: Extension Home Economists

Immediate release

MEN--FALL BRINGS  
FASHION VARIETY

Men can look forward this fall to wearing livelier shirts, narrower and more subdued ties and clothing in aubergine (say it auber-jean), meaning everything from a washed out plum color to a deep eggplant purple-black.

Variety and individuality spark men's fashions for fall, according to Sarah Cox, who teaches textiles and clothing at the University of Minnesota. Her authority is Norman Carr, executive director of Men's Fashion Association, New York City, who says there will be new things for a man to experiment with before deciding what looks and feels best on him and will be really comfortable to wear.

Asked to describe a basic wardrobe, Carr said of course it would vary with the age of the man and his financial condition. He advises building a wardrobe around three suits, adding two shirts and two ties for each suit (a total of six ties and six shirts), two pairs of shoes, a basic hat, two pairs of slacks, a sports jacket, raincoat and/or overcoat and some odd slacks.

He advises alternating wearings, "Clothes, like eyes or feet, have to be given a rest." The same is true of shoes. After the rest, they will revive, spring back into shape and last longer.

The bigger looking silhouette will be seen this fall. This means broader shoulders (but not built up), trim to the waist, then out a little bit. There will be wider lapel treatment, deep center vents, fancy backs, button down and scalloped pockets and the western look. He said it all adds up to "a handsome American look."

-more-

add 1--fall fashions

Suits will still be single breasted--two or three button. But there will be more double breasted blazers and sports coats.

Men's fashions, while not as changeable as women's fashion, have changed more rapidly in the last few years.

Men haven't worn velvet for years. Expect to see some in evening wear, slacks and sportswear. It will be a mannish look, not a Little Lord Fauntleroy look. Corduroy (which he says means the cloth of kings) will have all kinds of treatment--some of it will be gold colored. Color and texture will have something new to offer every man.

Skinny rib sweaters will be around. Carr cautions it takes skinny ribs to wear them or "you'll look like a sausage out of control."

White shirts will make the scene again this fall: this doesn't mean the colored ones will disappear. There will be white shirts with long pointed collars, French cuffs, double buttons, scallops (not frills), white on white textures and pencil-thin stripes.

Knit ties of the late '40s will back. Ties will settle down to a width around 4 inches. A year ago some were 5 inches. Some men don't like all that bulk at the neck and not everyone knows how to tie wide ties to make them look good.

Carr said he is constantly getting questions from returning servicemen wanting to know what's being worn and what they should buy to make the transition to civilian life. Men who have dropped some years from their lives in prison ask the same question. What should they wear so they won't look as if they'd been away.

Carr concluded there's a real psychological lift from being well dressed.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 2, 1971

To all counties  
Immediate release

IN BRIEF. . . .

Corn Insect Publication. A new 2-page folder which describes and gives control measures for 10 larvae affecting corn is available from the county extension office. Drawings of the corn rootworm, European corn borer, wireworm, earworm and others are included. Copies also are available from the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101. Ask for Extension Folder 259.

\* \* \* \*

Pasture Management Important. Minnesota horse pastures may not be as good as they seem, may not last as long as they should and may contribute to parasite problems in horses, University of Minnesota animal scientists say. Proper management of horse pastures can help correct any of these problems. Controlled grazing can protect a first year seeding of a new pasture. Uniform grazing of the pasture can be insured by shifting salt, shade or water for horses. A good pasture management program can also include clipping of weeds and scattering of droppings so that the sun can dry out parasite eggs in manure.

\* \* \* \*

Seed In Late Summer. The best lawn seeding time in Minnesota is from Aug. 15 to Sept. 10, according to Donald White, University of Minnesota horticulturist. During this period, grasses seed in nature. Most annual weeds don't germinate after Aug. 15. Grasses seeded in fall can become established before winter and be growing in spring before weeds start to germinate. The second best seeding time is early spring, about the opening of the baseball season or as soon after as the ground can be worked. For more information, see "The Home Lawn," available from the Bulletin Room, University of Minnesota, St. Paul, 55101, or the \_\_\_\_\_ County Extension Office.

\* \* \* \*

-more-

add 1--in brief

Time To Check The Farm Lease. Take time in August to review your farm leasing plans for the coming year. To give six months notice on a written lease with a March 1 anniversary date, you'll need to act before Sept. 1. Time between now and then can be used to make any financial settlements between tenant and landlord on seed, fertilizer, pesticides and other items. It's also a good time to review the entire lease and agree on any changes that should be made for the 1972 crop year. A written report from the tenant on crop conditions and prospects would be a welcome surprise for the landlord. A photograph or two would help, especially with an absentee owner.

\* \* \*

Good Farm Business Records Essential. One of the best methods of keeping essential farm business records is the Minnesota Farm Account Book. The book has forms and instructions for calculating net worth, return to capital and family labor, labor earnings, crop yields per acre and the quantity and value of feed consumed by livestock, says a University of Minnesota agricultural economist, Truman R. Nodland.

The Minnesota Farm Account Book is available from the Burgess Publishing Co., 426 South 6th Street, Minneapolis, Minn. 55415 or from your local county extension office.

A helpful pamphlet which supplements the Minnesota Farm Account Book or other good account books is also available. Just ask for Extension Pamphlet 138, "Know Your Farm Business."

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 2, 1971

To all counties

Immediate release

UM ECONOMIST PREDICTS BEEF DEMAND INCREASE

About a four-percent increase in the demand for beef for the remainder of 1971 as compared to last year is predicted by agricultural economist Kenneth Egertson of the University of Minnesota, St. Paul.

Based on an analysis of the July 1 "USDA Cattle on Feed Report," Egertson added that beef cattle supplies are expected to increase over the next six months as compared to a year ago, but the supplies will remain below the anticipated increase in the demand for beef.

Barring unforeseen circumstances, the severe price drop for slaughter cattle experienced during the last two years should be avoided during the next six months. However, the sharp increase in prices during the first quarters of the last two years might also be dampened considerably next year, he added.

A slightly downward trend is predicted, but slaughter cattle prices should remain well above those of a year ago, Egertson said.

Prices for choice steers sold in southern Minnesota through September should average about \$31.50, which is at least \$2 more per hundred-weight than a year ago. But some price weakness is expected from October through December to a possible low of slightly under \$30 by late December.

A fairly steady price level is predicted for January through March for slaughter cattle. The extreme price climb that developed during the first quarter of this year may not occur in the first quarter of 1972. Slaughter cattle should bring about \$30 a hundred-weight for this period with not much change from this level until the second quarter of 1972, the economist said.

-more-

add 1--beef demand

Not much change from present levels is seen for feeder cattle prices through September. Feeder cattle will be difficult to obtain due to the good pasture conditions throughout most of the west with the possible exception of the extreme southwest, Egertson said.

Choice 600 to 700 pound yearling feeder cattle laid into southern Minnesota feedlots should range from \$32.75 to \$33.75 per hundred-weight, while choice steer feeder calf prices are expected to remain in the \$36-38 per hundred-weight range through September.

Although it is too early to predict fall feeder cattle prices, preliminary indications point to rather high prices as compared to current levels, especially if fed cattle prices remain strong and feed supplies develop as expected at this time, he said.

-daz-

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 2, 1971

To all counties  
Immediate release

GOVERNMENT PROPOSALS  
COULD HELP RURAL  
AREAS, USDA SAYS

Revenue sharing, locating federal facilities in rural areas and a number of other governmental proposals could revitalize rural areas, according to a U. S. Department of Agriculture official.

Speaking at the recent Midwest Banking Institute in Morris, Minnesota, Joseph D. Coffey said revenue sharing would provide state and local communities with more flexibility in utilizing funds.

"Each state will get at least as much money as they presently get under existing programs, and the majority of states will receive more.

"In the case of the Extension Service, the proposed law provides that each state must use enough of its revenue sharing money to carry out an extension program through the land grant University comparable to 1971.

"Locating federal offices and laboratories in lower population density areas with growth potential is another way to foster rural development," Coffey said. This proposal is included in the 1970 Agricultural Act.

"Private industry must be encouraged to locate or expand in rural areas since people won't remain in rural areas unless they can find productive employment. However, the firms won't locate in rural areas because we want them to--they must be able to earn a profit.

"Three types of incentives for private firms to locate in rural areas are available. They are tax credits for investments, loans and credit guarantees from rural credit development banks and provisions of public works and facilities such as utilities, water and sewers and connecting roads."

Rural citizens also must have equal opportunity for health and education services, Coffey concluded.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 2, 1971

To all counties  
Immediate release

MOSQUITO CONTROL  
HELPS CHECK HORSE  
SLEEPING SICKNESS

Minnesota horsemen should take protective measures against the horse virus called Venezuelan equine encephalomyelitis (VEE) by observing importation regulations and controlling mosquitoes.

Horses and ponies kept in screened stables seldom get the disease which has infected horses in Texas.

VEE is usually spread by mosquitoes, not directly from horse to horse. "The disease usually infects horses on pasture where warm, wet conditions are most suitable for mosquitoes," said Dr. James Hanson, University of Minnesota extension veterinarian.

Horses from infected areas are prohibited from entering Minnesota, as are horses which have been vaccinated in quarantined areas.

VEE has not been found in Minnesota and no vaccine is available in the state for horses.

However, vaccination is used in Minnesota to prevent other types of sleeping sickness. These vaccines control only the specific type of sleeping sickness, Dr. Hanson emphasized. Recovery from and immunity to one type of sleeping sickness does not protect against the others, such as VEE.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 2, 1971

To all counties  
Immediate release

DIVIDE CROWDED PEONIES,  
HORTICULTURISTS SAY

If your peonies are in a good location and have adequate spacing, you can still leave them in the ground without dividing them.

University of Minnesota horticulturists suggest you divide and replant them only when they become crowded, usually in 10 to 15 years. Never divide a plant that is less than 3 years old because transplanting upsets the plants and retards flowering for several years.

Divide plants in early fall. Carefully dig around and under the plants. As you dig up the clumps, be careful not to break off the roots.

Use a heavy stream of water to wash off any soil that clings to the clumps. Strip off the leaves. Sterilize a sharp knife over a flame or in alcohol and cut the tubers apart. Cut the sections so each one has three to five eyes and a taproot.

A taproot is a straight, thick, central root that extends farther into the soil than other roots. Often it grows 12 to 15 inches deep.

As you cut the tubers apart, look for signs of diseases. To keep the cuts free of disease organisms, dust the cuts with zineb which you can buy in large garden supply stores.

Replant tubers immediately in a new area. September is peony planting time.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minn. 55101 Tel. 373-0710  
August 3, 1971

Immediate release

## EATING IS STILL UP TO THE INDIVIDUAL

One of the regrets often voiced about today's busy living is that other people make many of our decisions.

One thing the individual still can control, to a large degree, is what he or she chooses to eat, according to Mary Darling, nutritionist at the University of Minnesota. She cautions, "Don't substitute vitamin pills for good eating habits."

Blindly taking vitamins could have some dangers. It is important to know whether what you're taking is needed to supplement your daily diet. Could vitamins interfere with any prescribed medicines you are taking? Perhaps your lack of pep feeling is a symptom of a real physical problem that could need immediate treatment.

Instead of practicing your own folk medicine, self-diagnosis, she said, it is a wise policy to consult a physician on taking supplements.

Earlier this year health professionals tried to alert the public to possible risks of taking large doses of vitamin C or ascorbic acid--presumably to ward off colds. In one case study, a person's self prescribed intake of vitamin C interfered with blood clotting action. When the patient's prescribed medicines weren't having the desired effect, it was discovered the patient felt a cold coming on and took vitamin C daily with other medication. Because the many interactions

add 1--eating is up to individual

between nutrients, hormones, enzymes and drugs in the body are complex, self medication isn't wise.

Actually, a varied diet can be expected to supply adequate amounts of needed nutrients. Milk, fresh green leafy vegetables and fruits, whole grain products and lean meat are generous sources of these nutrients.

Even if children receive vitamin supplements, parents should still teach them good eating habits. Food selection habits during the first few years of life often carry over into a lifetime.

# # #

149-mko-71

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minn. 55101 Tel. 373-0710  
August 3, 1971

Immediate release

## VISUAL CLUTTER MAKES TOURISM PROMOTION DIFFICULT

It's quiet here. Uncrowded, unspoiled.  
You can park yourself wherever you want. And do whatever  
you wish. Paddle through North America's last protected  
canoe wilderness. Or take in some lively nightlife. Fry  
walleyes over a camp or cottage cookfire. Or sample some  
award-willing cuisine. Visit our swinging cities. Or just  
sit back and enjoy the breeze on your own little piney island...

1971 tourist promotion advertisement

Enticing prose backgrounded by a purplish-blue calm of rippling water  
presents the smog-weary urbanite with a promise difficult to fulfill--the  
totally "unspoiled" landscape.

Reality with its dis<sup>1</sup>illusions places a grim pall over the hopeful traveler.  
"Mile after mile of the landscape is strewn with junk, cluttered with billboards  
and untidy with a hodge-podge of development, semi-development and anti-  
development," according to Uel Blank, extension resort economist at the  
University of Minnesota.

Upon entering most Minnesota communities a visitor would be considerably  
chagrined by the visual clutter. "And this would include the cities of Minneapolis  
and St. Paul," he said.

Neglect and urgencies imposed by the frontier-work ethic held by most  
Minnesotans wreak a devastation upon the landscape:

"There's no intent to be malicious; the state's outstanding natural  
beauty is simply ignored... Minnesotans do not tolerate this aesthetic pollution--  
they fail even to see it," Blank added.

--more--

Self-indulgence and the magnitude and growth of trends indicate the extent to which Minnesotans have translated the frontier-work ethic, a 19th century myth prescribing salvation through hard work, into a doctrine of consumerism and strength-through joy. Fulfillment is sought through quantity, speed, power and mastery, as it was in the 19th century, but needs are only satiated. Satisfaction comes through interpretation, understanding and creativity. It's the difference between seeing a woods from an automobile at 60 miles an hour and experiencing it on a hike, he said.

"Citizens have treated the state's finest living resource, its lakeshores, in a manner comparable to the roadsides. Cottages are built directly at the water's edge. Sewerage often is emptied directly into the water. Trees and other vegetation are destroyed or altered," Blank said.

One result of past neglect is that Lake Minnetonka, southwest of the Twin Cities, suffers seriously from over-fertility. Only two forms of aquatic life recently were identified in the lake where decades earlier 24 were known to exist, he said.

These are wrinkles in the "unspoiled" portrait of a state where tourism is an industry--a marketable package of more than 13,000 lakes, 25,000 miles of streams and 17 million acres of forests--with an annual tourist trade of more than \$800 million.

"Fortunately, the need for positive action to avoid environmental degradation is recognized, even if we are now only in the early stages," the economist said.

The Pollution Control Commission has been established and the 1969 Legislature enacted laws to control development of land adjoining bodies of water and streams.

An environmental scourge is visual pollution where signs get bigger, shinier and flashier as new businesses are added to commercial strips unhindered by ordinance restrictions. Busy routes become "sign alleys," in the words of one suburban city councilman.

Sign ordinances, zoning laws and anti-litter ordinances are measures communities use in an attempt to control visual pollution. A new sign ordinance for Crystal, more stringent than the suburb's present law, has been under consideration by that community's environmental commission.

"These efforts do not herald the millennium with regard to our landscape. Our first steps toward management, as represented by the public efforts at planning and zoning, have met with great resistance and yielded frustratingly little improvement. Frontier values continue dominant. Only where there is a widely felt need for beauty in the living environment will real progress be possible," Blank said.

# # #

148-daz-71

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minn. 55101  
August 2, 1971

Immediate release

#### TURNQUIST RECEIVES RECOGNITION FROM CONFERENCE

Orrin C. Turnquist, professor and extension horticulturist at the University of Minnesota, has received a certificate for his contributions to the National Potato Utilization Conference for the past 23 years.

The certificate was presented at the last conference of the national organization, held recently at Fargo, N.D. In the future the potato utilization conference will be a sub-section of the Potato Association of America.

Turnquist has served as president of the Potato Association of America and was elected an honorary life member of the association in July 1970 for outstanding contributions to the potato industry.

Turnquist said advancements in the utilization of potatoes has been made through the annual conferences which began in 1948.

# # #

daz-71

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minn. 55101 Tel. 373-0710  
August 5, 1971

Immediate release

#### UM ANIMAL SCIENCE HEAD RECEIVES AWARD

Davis, Cal. -- Robert W. Touchberry, chairman of the University of Minnesota's Department of Animal Science, has received the Animal Breeding and Genetics award from the American Society of Animal Science.

The award consists of a \$1,000 cash award and is given for outstanding research in breeding and genetics. The presentation was made at the 63rd annual meeting of the American Society of Animal Science here Aug. 3.

Touchberry was named to his present position in 1970, after serving as professor of genetics in the Department of Dairy Science at the University of Illinois, Urbana.

He joined the University of Illinois Department of Dairy Science in 1948 as a research assistant. He was promoted to assistant professor in 1949, to associate professor in 1955 and to professor in 1959. He served on the University of Illinois Research Board from 1968 to 1970.

During a 13-month sabbatical leave in 1967-68, Touchberry worked with the Division of Biology and Medicine for the U.S. Atomic Energy Commission in Washington, D. C. He was geneticist in charge of reviewing and evaluating requests for grants in population, human and radiation genetics.

In June and July of 1965 he served as animal science advisor for Njala University and AID Freetown in Sierra Leone, Africa. In 1956-57 he received a Fulbright Fellowship for research and lecturing in Denmark.

add l--touchberry receives award

Touchberry holds a B.S. degree in animal husbandry from Clemson (S. C.) University, a master's degree in animal breeding and a Ph. D. degree in animal breeding and genetics, both from Iowa State University.

Touchberry is a member of a number of professional organizations and honor societies, and is listed in American Men of Science and Who's Who in the Midwest. An elder in the Presbyterian Church, he is married and has four children.

# # #

jms-71

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minn. 55101 Tel. 373-0710  
August 5, 1971

Immediate release

## SIX IFYES TO VISIT MINNESOTA FARMS

Six young adults from Finland, India, Jamaica, Nepal, New Zealand and Thailand will arrive in Minnesota August 11 to live and exchange ideas with Minnesota farm families under the International Farm Youth Exchange (IFYE) Program.

The IFYE exchangees are Kaarlo A. Satimus, Vammala, Finland; Syeda Tazkia Begum, Assam, India; Beverley P. Martin, Westmoreland, Jamaica; Surya Man Shakya, Tansen Palpa, Nepal; Osborne (Ossie) Hickman, Blenheim, New Zealand; and Puangkeo Waritt, Chiangmai, Thailand.

Each exchangee will live with two families in three different counties from Aug. 14 to Oct. 17 to gain a better knowledge of American farming, community activities and family structure. The IFYE exchangees will also spend several days touring the State Fair, according to Dave Pace, assistant state leader, 4-H and youth development at the University of Minnesota.

The IFYEs are particularly interested in learning more about 4-H and other youth educational programs, livestock and crop production techniques, nutrition, cooperatives and marketing and farmers' organizations.

The International Farm Youth Exchange is a two-way program sponsored by the National 4-H Club Foundation and the Extension Service to increase world understanding at the family and individual level.

Since the beginning of the IFYE program in 1948, more than 4,000 young adults have taken part in the exchange between the United States and 70 other countries. IFYEs have been guests in every county in Minnesota.

# # #

151-11h-71

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minn. 55101 Tel. 373-0710  
August 5, 1971

Immediate release

## SEWAGE: POSSIBLE NEW STATE FERTILIZER

The problem: What do you do with the daily sewage sludge--the solid wastes--of nearly 3 1/2 million Minnesotans? Most sludge is now incinerated or dumped on unused fields and in landfills--potentially damaging practices which may be altered if sludge proves useful as a fertilizer.

The syrupy sludge which has been separated from the sewage effluent and digested in the treatment process is now being tested as a fertilizer by the University of Minnesota. And sludge is being used on a limited basis as fertilizer in the state, according to William Larson, a soil scientist with the Agricultural Research Service and the University.

In a few scattered farms throughout the state, sludge is being used on commercial crops such as corn, wheat and peas. Soil scientists feel that there is no danger of soil or plant contamination by this practice on a short term basis.

Small amounts of sludge are being obtained from the Twin Cities Metropolitan Sewer Board for use on golf courses and parks.

Some sludge at Hastings, Minn., is being released for use on home gardens and lawns.

The problem with present handling of sewage is that it's dumped into streams and lakes where it pollutes the water. Sewage from nearly 400,000 Minnesotans which does not undergo secondary treatment is especially damaging to fish and general water quality. Secondary treatment reduces the ability of the sewage to diminish oxygen in the water and drastically curtails its polluting power.

add 1--sewage-possible new fertilizer

The use of sewage for its nutrients has long been practiced in Europe, the Far East, and elsewhere, Larson said.

"With environmental laws becoming tougher and tougher, the Environmental Protection Agency may eventually ban putting sewage in rivers or in the air by incineration," Larson stated. Many facts now point to the potential of recycling it, he said.

Nevertheless, researchers at the University and elsewhere are approaching the sewage-fertilizer problem with a "check everything first" attitude.

The potential dangers in using sewage as fertilizer are obvious: Pathogens, viruses, and nitrate are present in sewage which could present a danger in handling the sewage, in human consumption of sewage-grown foods and in pollution of ground water, Larson said.

Heavy metals present in sewage such as zinc, cadmium, lead and others might have long term ill effects on people consuming the sewage-grown foods and may reduce the soil's capacity to produce. Cadmium, for example, can cause hypertension and nervous disorders in people.

The University research which has just started this summer at Hastings is using different amounts of wet and dry sludge and comparing corn crop response and soil and plant analyses with experimental plots which are using commercial chemical fertilizers.

In addition, the analyses will check for nitrates and heavy metals in the soil and plants.

The syrupy sludge is transported from the Hastings sewage treatment facilities to the experimental plots by tank truck, where it is dumped.

"There are still problems with plastic and other materials in the sludge that can plug valves," Larson said. Research may show that it is better to inject sludge in soil or put it in irrigation systems, he said. ###

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minn. 55101 Tel. 373-0710  
August 5, 1971

Immediate release

## TREE TRIMMING PRESENTS HAZARD FOR AMATEURS

Leave large tree trimming to professionals, Extension Arborist Ken Simons at the University of Minnesota advises weekend gardeners and do-it yourselfers.

"Each year many of these eager amateurs severely injure themselves or a friend, damage the neighbor's property and even cause injury to the tree they are trying so desperately to preserve.

"If you are sincere in your concern for the preservation of your shade trees and the environment they support, employ a commercial tree service when the need for professional maintenance is indicated," Simons says.

Secure three or more detailed estimates for cost comparison and for verification of your conclusion that the work in question is really necessary, he suggests. A detailed description of the work to be done and the precise fee to be paid should be included in the estimate and subsequent contract.

Simons says the lowest estimate may not always be the wisest choice. Normally total job estimates given by dependable firms will be somewhat similar. When you have had satisfactory experience with a firm, it may not be necessary to get estimates for each future job.

-more-

add l-tree trimming presents hazards

Arborists and tree care companies are listed in the Yellow Pages of the telephone directory. Consider only those individuals or firms with complete liability insurance coverage. If in doubt, proof of insurance coverage can be obtained upon request from the insurance agency. "Your homeowner's insurance policy will not cover damage done by an uninsured contractor to your property or your neighbor's property," he says.

If your selection of a tree service is not based on the referral of a friend or neighbor, you might ask the firm for names and addresses of previous customers. Consult local nurserymen or garden center operators about tree trimmers.

If a person or firm contacts you to do work on your trees, it is a good idea to obtain other opinions and estimates to see if professional tree care is really needed. If you are told that your tree is diseased, it is advisable to have twig or branch samples sent to the Plant Disease Clinic, Department of Plant Pathology, University of Minnesota St. Paul, Minn. 55101; or to the division of Plant Industry, Minnesota Department of Agriculture, 670 State Office Building, St. Paul, Minn. 55101.

In many cases the size of a firm, the number of employees and the type of equipment indicates the potential to do quality work. But by no means should you discriminate against the responsible individual who is a professionally trained tree trimmer and is working part time as an independent, Simons says.

Department of Information  
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St. Paul, Minn. 55101 Tel. 373-0710  
August 5, 1971

Immediate release

## SALMONELLA INFECTION TRACED TO TURTLES

Pet turtles and the water they are kept in constitute a significant source of salmonella infection in children, Dr. Ray Solac, University of Minnesota extension veterinarian, said.

The problem is believed to be more serious than figures from the Public Health Service's Center for Disease Control show. Only a very small fraction of the 24, 216 salmonella cases in humans in 1970 were from reported outbreaks. This suggests that many outbreaks are never investigated, Center for Disease Control officials said.

But in 1970, turtles accounted for almost 88 percent of the 254 salmonella cases in reptiles and their environment.

Symptoms of salmonella infection are much like the flu. In a case reported by the Georgia Department of Public Health, a 2 1/2-year-old boy drank some water from the bowl in which three turtles were kept. Three days later he was seen by a pediatrician who noted a fever and a high white blood cell count.

Five days later the boy was severely ill with diarrhea, stomach cramps and nausea. The boy recovered after treatment.

This case emphasizes the hazard of letting small children keep turtles as pets, Solac said.

# # #

153-daz-71

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 9, 1971

To all counties

Immediate release

IN BRIEF . . . .

Replace Teat Cup Liners Properly. When you buy new teatcup liners, make sure you get liners designed for the metal shells you have on your milking machine. The inflations need room to collapse inside the shells. It's also important that the space between the liner and shell isn't so large that it interferes with pulsation action. Replace liners before they start to lose their shape or show small cracks on the inside.

\* \* \* \*

Return Over Feed Indicates Profit. The dollar return over feed cost and the return for \$100 of feed can show whether or not a livestock business is profitable says a University of Minnesota agricultural economist, Truman R. Nodland. Return over feed is the amount available to the farmer to pay for labor, housing, equipment, power, interest, and miscellaneous cash costs.

In dairying, farmers should receive \$200 of return for \$100 of feed in order to cover all dairying costs including a modest amount for labor. In hog production, a farmer has to receive \$135-\$140 of return for each \$100 of feed consumed by hogs to break even. In general, other classes of livestock range between these two extremes.

\* \* \* \*

-more-

add 1 -- in brief

Sample Soil in Late Summer. Late summer and fall are the best times to sample soil in Minnesota. When you sample in the fall, results are returned in time to plan ahead better in the spring. Also, fall sampling fits in well with approved management practices. For example, where legume seeding is planned for next spring, sampling and testing ahead of time permits ordering and applying lime in the fall. For more information get Soils Fact Sheet No. 4, "How To Sample Soil For Testing," from the \_\_\_\_\_ County Extension Office or the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

\* \* \* \*

Seed on Calm Day. Lawn seeding is easiest on a calm day, according to University Horticulturist Donald B. White. If you seed by hand, mix the seed well and divide it into four equal lots, then spread each lot in a different direction. If you seed mechanically, divide the seed into two equal lots and sow it in two directions. With mechanical seeding, it's easiest to mix the seed one part to two with a well-processed natural organic fertilizer to add bulk. Rake the seed in lightly, leaving about 10 percent of it showing. Then roll the seedbed lightly to firm the seed into the soil. Water it lightly.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 9, 1971

To all counties

ATT: Extension Home Economists

Immediate release

HOW TO AVOID  
BOTULISM  
FOOD POISONING

"You can't get botulism food poisoning from touching the contents of a contaminated container--some of the contents must be eaten.

"You can rarely detect botulism's presence--there is little change in the flavor, odor or appearance of food when this spore organism is active and deadly.

"A bulging can might indicate botulism. But, again, botulism might be present in a can that doesn't bulge. And not every bulging can contains botulism.

"My philosophy is you should never buy a dented or bulged can because you increase the likelihood of getting an imperfect product. If people refused to buy damaged cans of food, manufacturers wouldn't try to sell them."

So says Edmund A. Zottola, food microbiologist, University of Minnesota, giving some of his ideas of how to guard against the extremely rare, but often fatal food-borne disease known as botulism. This is the disease blamed for the June death of a New York banker and his wife's serious illness after eating commercially canned vichyssoise (cold potato soup). The toxin causes paralysis of the nervous system.

Zottola is in the process of writing a publication on botulism and he will give examples of other outbreaks over the last few years.

He is quick to point out that botulism occurs seven times more often in home canned than in commercially canned products. Mortality rates among those who have eaten toxic products are 60 percent--meaning 6 of every 10 persons dies. Strangely enough the fatal toxin can be destroyed by boiling food 15 minutes or more, Zottola said.

-more-

add 1--food poisoning

There are antitoxins available for botulism,

If your case was clinically diagnosed as botulism, the doctor would call the state health department or a local pharmaceutical firm to see where the antitoxin is available most quickly. If none was available locally, there would be another call to Atlanta, Georgia and the U.S. Public Health Service Communicable Disease Center. They would send some on the next plane or locate a source.

The antitoxin is made from injecting horses with botulism. After the horses develop antibodies (disease fighters), antitoxin is made from the serum in their blood. There are dangers in giving this; some people may be allergic to it.

Botulism is not apt to occur in highly acid foods such as citrus and tomato juices, sauerkraut, high acid pickles or in fermenting processes such as home wine making. It is more likely in processed or smoked meats and fish and canned, low acid foods such as string beans, corn, beets, peas, meats and olives.

Canning low acid foods in a boiling water bath where the temperature does not get above 212°F. establishes ideal conditions for the growth of this spore-forming bacteria. The heat kills normal spoilage organisms and drives out the air. While the canned food is on the shelf waiting to be used, this bacteria can grow and produce the poison. This is why it is absolutely necessary in canning low-acid foods to use a pressure cooker that permits temperatures above 212°F. which will kill this bacteria. Once the heat destroys the bacteria, it won't return.

The illness first appeared in the early 1800's in sausage poisoning in Germany. Zottola said the bacteria which causes botulism was named *Clostridium botulinum*, meaning rod-shaped bacteria isolated from sausage.

Probably better known types of bacterial food borne illness are Salmonellosis and *Staphylococcus aureus* food poisoning. Both can cause serious illness, but death is rare.

-more-

add 2--food poisoning

These food borne diseases are associated with poultry, eggs, pork, processed meats, creme desserts, fillings, potato and chicken salads or any food requiring hand mixing and not receiving a heat treatment afterward.

Zottola said good sanitation practices and proper temperature control--keeping hot foods hot (above 130°F.) and cold foods cold (below 50°F.) are the best prevention for these two food poisonings.

Zottola's fact sheet, "Bacterial Food Poisoning," and two home canning guides, Extension Folder 100, "Home Canning Fruits and Vegetables," and USDA Bulletin 8, "Home Canning of Fruits and Vegetables," may be obtained by writing the Bulletin Room, University of Minnesota, St. Paul, Minn. 55101.

Following directions in these canning guides should prevent botulism, Zottola concluded.

-mko-

## *Food for Better Health Program*



An Expanded Food  
and Nutrition Education Program  
in Home Economics Extension

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 9, 1971

To all counties

ATT: Extension Home Economists

Immediate release

### THE ELDERLY NEED BALANCED MEALS TOO

Is there an elderly person in your home who doesn't want to eat? Elderly persons need regular balanced meals, just like everyone else. Why not try one or more of the following suggestions:

\* Keep regular mealtimes. This is good for the entire household. When children are in school and on regular schedules this is easier. Families without children should plan a flexible schedule which meets their needs.

\* Suggest some kind of light exercise each day. Walking is one of the best and most popular forms of exercise. The stimulation of getting out of the house, breathing different air and perhaps meeting a friend to chat with along the way may lift the spirits.

\* Ask a friend or relative to join the family for an occasional meal. Celebrating a birthday or special event may add interest and perk up a lagging appetite.

\* Try a new recipe occasionally. It usually is better if the new item is combined with an old favorite. And, just like introducing new foods to children, start out with small servings. Suggest that everyone at the table taste the new food.

\* Use attractive table settings. This does not mean the white table cloth, best china and silver and fresh flowers. It can mean a colorful, clean plastic table cover or place mats and cheerful paper napkins. Use a bowl of fresh fruit or vegetables or a blooming houseplant for a centerpiece.

\* Include milk every day. Elderly persons need milk too. It is a basic food for all ages. Older persons should drink at least two glasses of milk each day. Some of this can be in cream soups, puddings, cheese (including cottage cheese) or ice cream.

-lsn-

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 9, 1971

To all counties  
4-H NEWS  
Immediate release

4-H'ERS WILL COMPETE  
IN TRACTOR  
DRIVING CONTEST

The best 4-H tractor drivers in the state will compete in the tractor driving contest during the Minnesota State Fair.

\_\_\_\_\_ from \_\_\_\_\_ County will be participating in this  
(Name) (Name)  
event.

Preliminary driving events will be held in the parking lot north of Farm Boys' Camp at 8 a.m. Thursday, September 2. The finalists--three 4-H'ers and three FFA members--will compete at 9 a.m. Friday, September 3, in front of the 4-H Building.

The contestants will be judged on a routine daily check, tractor safety, a written examination, a two-wheel driving event, a four-wheel driving event and a power take off event.

The winner of the state competition will compete in the 4-H Western United States Tractor Operators' Contest in Arizona, October 31 to November 2.

The National 4-H Service Committee and the American Oil Foundation are sponsoring the Western Regional event to which 22 states are invited to send contestants.

Sponsors of the state event are the Retail Farm Equipment Association of Minnesota and South Dakota, the Mutual Service Insurance Companies and the Minnesota State Fair.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 9, 1971

To all counties  
4-H NEWS  
Immediate release

4-H GIRLS WILL  
MODEL FASHIONS AT  
STATE FAIR

\_\_\_\_\_ County 4-H girls who are setting the pace in fashion will model  
(Name)  
their winning garments and learn more about the fashion and clothing world  
during the Minnesota State Fair 4-H Dress Revue.

They are (give names, ages, addresses and if desired, garments to be modeled).

Four public dress revues will feature the county dress revue winners modeling their handmade clothing. They will be held on Saturday, Monday, Wednesday and Friday, August 28, 30, September 1 and 3, at 2 p.m. each day in the 4-H Building on the State Fairgrounds in Erickson Hall as well as on the main floor.

\_\_\_\_\_ County's representatives will take part in the dress revue on  
(Name)

\_\_\_\_\_  
(Date)

Workshop sessions will teach the girls what to consider about clothing selection and appearance. The 4-H'ers learn about fabrics and styles that are right for the individual's figure and personality and how to combine these with accessories. The girls then evaluate their own garments and select a Court of Honor.

"The dress revue provides opportunities for girls to develop poise and confidence, to evaluate costumes and to have new experiences in the field of fashion," says Evelyn Harne, associate state leader 4-H and youth development, at the University of Minnesota.

Assisting with preparations for the dress revue will be a professional model, extension home economists and others in the clothing field.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 9, 1971

To all counties  
Immediate release

MILD TO MODERATE  
CORN BLIGHT  
IN MINNESOTA

Southern corn leaf blight is "mild to moderate" and is not causing a lot of leaf killing over a wide area, Herbert G. Johnson, University of Minnesota extension plant pathologist, reported Monday (August 9).

Johnson and Extension Economist Willis Anthony reported on the blight situation after returning from the Secretary of Agriculture's corn blight conference last week at Urbana, Illinois.

The corn crop outlook is brighter now compared to earlier in the season and mid-August 1970, Johnson said, because:

- There is more normal cytoplasm corn.
- There has been no general explosion of the disease yet.
- Inoculation is not coming from southern areas.
- The corn looks excellent at this time.
- There is no strong evidence of a new race of disease to attack normal cytoplasm corn.

Since most of Minnesota's corn was planted by May 14, the growth stage is more advanced now than a year ago. Also the corn is taller than usual and may lodge more late in the season, Johnson said.

The condition of the corn crop in other states is especially important to Minnesota farmers this year, Anthony stressed. "The crop size could be reduced enough to warrant a price rise of as much as 30 cents per bushel for Minnesota farmers. This would mean an extra \$135 million for the state's corn growers," he said.

add 1--mild to moderate

The most severe areas of southern corn leaf blight infection are southern Ohio, southern Indiana, southern Illinois and eastern Iowa. The disease is mostly mild in the northwestern and western part of the Corn Belt. Cool weather across much of the Corn Belt has slowed the spread of the disease.

About 100,000 acres in Indiana have been sprayed with fungicides in order to control the blight, but accurate estimates of disease control cannot be expected until early September, Johnson said.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 9, 1971

To all counties  
Immediate release

STORED GRAIN LOSSES  
CAN BE PREVENTED

Grain losses in the United States from stored-grain insects which annually reach 10 to 20 percent of the total production can be prevented or reduced, says University of Minnesota entomologist Phillip Harein.

He recommends these preventive measures:

- \* Sweep out and destroy all grain, dust, chaff, and webbing from all harvesting machinery, grain hauling equipment, and storage bins.
- \* Apply a residual insecticide bin spray to the walls and floors of these areas. Use a 2½ percent methoxychlor or a 1 to 1½ percent malathion (premium grade) spray. Use a wet or coarse spray so that bounce or drift can be minimized.
- \* Use a grain protectant. You may apply grain protectants containing either pyrethrins or malathion directly to the grain before it is binned. Applying a coat to the surface of the grain after it is binned will help prevent surface infestations of insects.
- \* Fumigants such as aluminum phosphide, carbon tetrachloride or carbon disulfide, methyl bromide or hydrogen cyanide can also be used to kill stored grain insects. Fumigants can be mixed with the grain by adding them to the grain stream as the bin is being filled.

Another method is gravity penetration in which a liquid-type fumigant is applied to the surface of the grain and allowed to permeate downward. A third method--forced distribution--utilizes mechanical or physical force other than gravity to distribute fumigant vapors throughout a stored commodity.

For further information on insects in stored grain and how to control them, request Entomology Fact Sheet No. 9, "Insects in Stored Grain," from the Bulletin room, University of Minnesota, St. Paul 55101.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 9, 1971

To all counties  
Immediate release

HOT WEATHER AFFECTS  
LAYING FLOCKS

As Minnesota summer temperatures climb to 95 degrees or warmer, farmers with laying flocks face problems with egg production and shell quality and may face high mortality rates during prolonged hot weather spells.

These problems seem to be related to nutrition--the primary nutritional requirement is water, says University of Minnesota animal scientist, George Speers. Since water consumption of hens will double between 70 degrees and 90 degrees, additional watering space may need to be provided. If water is restricted by a time clock, the watering time may need to be extended to allow birds additional water.

A second nutritional problem in summer is the reduced feed consumption of laying flocks. An additional one or two percent of protein and a higher level of calcium in the feed is good insurance against egg production slumps resulting from reduced feed intake, Speers says.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 9, 1971

To all counties  
Immediate release

PESTICIDE ACCIDENTS  
CAN BE PREVENTED

Recent pesticide accidents in Minnesota have resulted in the contamination of two wells. In one case the pesticide was found in the milk of cows that had drunk some of the contaminated water.

These accidents resulted when the pressure dropped on water lines being used to fill pesticide sprayer tanks. When that happened, the pesticide was siphoned out of the tank and into the well.

Such accidents could be prevented by vacuum breakers on water lines used to fill pesticide sprayer tanks that would prevent siphoning of pesticides back into these water supply systems, says University of Minnesota entomologist Phillip Harein.

When contamination of a well occurs, Harein recommends these guidelines:

\*Flush out the system by pumping out large amounts of water from the well. Periodically check the water for off-odor or color and do not allow either man or animals to use this water.

\*Contact your county agent for information on decontamination details.

\*After flushing out the water system, collect a one quart sample in a clean container and send it for analysis to: Minnesota Department of Health, Section of Analytical Services, 717 Delaware Ave. SE, Minneapolis, Minnesota 55440. Be sure to send a copy of the label from the pesticide container along with the water sample.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 12, 1971

Immediate Release

RISING FEDERAL STANDARDS:  
MANY SMALL DAIRYMEN QUITTING

If you are one of the over 25,000 Minnesota farmers with small dairy herds, you are probably faced with a choice within the next several years: pour money into the farm to meet constantly rising federal standards or quit dairy farming.

The small farm dairyman is now in a two-way squeeze that grows tighter all the time, according to E. Fred Koller, University of Minnesota dairy marketing specialist.

On one side, the federal government is constantly upgrading standards for milk production. Standards are kept high not only for public protection, but for interstate trade and the special government programs such as school milk, school breakfast and lunch programs and domestic relief.

"The history of government participation in the dairy industry has been to gradually step up standards," said Koller. The government programs have also been instrumental in maintaining the milk price--now at \$4.93 per hundredweight, he said.

New federal standards that were proposed three years ago could put small farm dairymen in an immediate bind. These proposed standards--now in limbo--would require most small farm dairymen to make costly investments in animal housing, cooling and cleaning equipment, milkhouses, sewage disposal, water supplies and other changes.

On a second front, the shipping and processing procedures required for the small farm can milk producer are becoming almost economically prohibitive. Both shipping and processing for can milk is extremely costly, Koller said.

add 1--rising federal

It is mainly the northern Minnesota dairyman that is severely affected and many of these are hurting now, Koller said. Some of these dairymen have second jobs at pulpwood operations, paper mills, logging, and at resorts in the summer. But for many, dairy farming is their sole means of support, he said.

"The overall outlook for can milk producers is rather bleak and will likely become more bleak as time goes by," said Vern Packard, University extension dairy specialist. "As their numbers decline and distances between farm pick-ups widen, hauling costs for can milk increase sharply."

"Also, can truckers will continue to seek other employment opportunities when their livelihood is in doubt, so just getting milk to market will pose serious problems to the can shipper," he said.

No one is certain what effect any new federal requirements might have on the total rural economy, but one University Economic Study Report, "Labor Needs in Lake State Dairy Farming 1967, 1975 and 1980," prepared by Boyd M. Buxton, gives some insight into that potential problem.

With new technology and the shifting of dairy farming to fewer and larger farms, there will be a general decrease in the employment potential for rural areas, said Buxton, who is an agricultural economist with the Farm Production Economics Division of the USDA Economics Research Service. He is stationed at the University's Department of Agricultural and Applied Economics.

By 1980, 76,000 farm operators and their families--73,000 fewer than in 1967--will be involved in dairy production in the Lake States. Total hours for all workers, families and hired hands, will drop 33 percent by 1975 and 47 percent by 1980. The decline in the number of dairy farm operators includes those who will retire, shift to non-farm work or continue farming but shift to non-dairy enterprises, Buxton said.

add 2--rising federal

Northern counties in the three Lake States have generally had large decreases in the number of dairy farms and densely populated counties and counties with flat, productive land have left dairying at a faster rate than in the past, he said.

The trend in dairy farming, like most other commercial enterprises, has been toward fewer and fewer small operators and more large operators. For example, between 1957 and 1969, farms with fewer than 10 cows decreased by 75 percent; those with 10-19 cows decreased by 67 percent according to a University Agricultural Extension Service Report by Boyd Buxton and agricultural economist Jerome Hammond. During this 12-year span, those with 20-29 cows decreased only four percent.

Even without having to make further investments in his farm, the small farm dairyman has not exactly enjoyed a lucrative enterprise recently. Figures from 1969 and 1968 show that the small dairy farms produced an average of \$5,245 for the operator's labor and management and no payment for the use of capital.

Medium-sized dairy farms, dairy and cash crop farms, and highly specialized cash crop farms produced 5 to 7 percent return on capital.

Large dairy farms yielded a return large enough to provide \$6,000 to pay for the operator's labor and yielded a 10.2 percent return on the capital managed.

In southern Minnesota, the return to capital managed in 1969 varied from 2.4 percent on small dairy farms to the unusually high rate of 18.4 percent on highly specialized hog farms.

The overall consequences effected from any new federal standards will be an acceleration of the decline in numbers of small dairy herds, expansion of some herds in an attempt to maintain net income and a push of the dairy industry to one grade of milk.

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul 55101 Tel. 373-0710  
August 12, 1971

Immediate Release

## DON'T SELL NOW, ECONOMIST SAYS

Don't sell now--wait until prices rise, University of Minnesota agricultural economist Willis E. Anthony Thursday (Aug. 12) advised Minnesota corn and soybean growers.

Buyers' and sellers' expectations for a large corn crop this year have caused corn prices to go down in the past few weeks. Corn is now priced at a level based on the record-breaking 5.3 billion bushel crop estimated by the U.S. Department of Agriculture Wednesday for 1971, he said.

Despite outbreaks of southern corn leaf blight, the USDA forecast was up 30 percent from last year's blight and drought stricken corn crop of 4.1 billion bushels.

In advising corn growers to assume a "wait and see" attitude, Anthony said foreign buyers are showing renewed interest in the United States corn at its present price. With the 1971 feedgrain crop not yet in the bin, actual production could be less than the USDA's August estimate for 1971 crop. Also, a substantial amount of 1971 corn is eligible for sealing under government programs, which may remove 15 percent of the crop from the market at depressed prices, Anthony added.

There is not much prospect of corn prices going sharply lower, but there is some opportunity for price rises, the economist said.

-more-

add 1--don't sell

Projected yield increases are expected to result in a 1.2 billion bushel soybean harvest for 1971, eight percent more than last year's harvest, according to the August USDA projection. Carryover of old crop beans into the new marketing year will be below last year, which may result in slightly lower total supplies in 1971-72 than in 1970-71.

Substantial or sustained soybean price increases are difficult to foresee, but there may be temporary price increases in response to the USDA's August projection, he said.

# # #

158-daz-71

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul 55101 Tel. 373-0710  
August 12, 1971

Immediate Release

#### WINTER HARDINESS SPRAY POSSIBLE

A spray to make plants winter hardy may be a reality within a few years for Minnesota gardeners, nurserymen and farmers.

A winter hardiness spray might prevent early fall freezing weather from killing plants such as rhododendron, dogwood, azaleas, magnolias, and apricot and peach trees.

Defoliation experiments with grafted plants at the University of Minnesota's Laboratory of Plant Hardiness have led scientists to believe that there are two substances in plants which help them acclimate to cold fall temperatures.

One substance which causes plant acclimation is produced by leaves exposed to short fall days, said University horticulturist Pete Ascher. This substance can move throughout the plant and even across grafts.

Development of a winter hardiness spray would depend on the identification and isolation of this substance which is manufactured by leaves, Ascher said.

A second substance, produced by leaves exposed to long day-light hours, surpresses the plant's acclimation to cold fall temperatures.

"The fact that a substance promoting the development of winter hardiness in a plant moves from one part of a plant to another and across a graft removes the idea of a hardiness promoting spray from the realm of wishing and places it in the realm of possibility," Ascher explained.

add 1--winter hardiness

Many plant species which are not reliably hardy in Minnesota do not acclimate to the cold fall and winter temperatures fast enough. Consequently, early frosts can sometimes kill these plants. A spray for winter hardiness would help these plants most, Ascher said.

# # #

157-bjc-71

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 13, 1971

Release August 18, 1971

NEW FUNGICIDES  
DEVELOPED BY  
RESEARCHERS

A new group of fungicides are being developed that may be more economical than present fungicides.

The new chemicals show promise in controlling pathogens on large field crop acreages with minimal labor and relatively small amounts of chemical, according to J. B. Rowell, a plant pathologist with the University of Minnesota and the Agricultural Research Service.

The new fungicides give internal protection against pathogens as compared to presently available fungicides that act on external plant surfaces to shield the plant against pathogen invasion, Rowell said today (Aug. 18) at the annual meeting of the American Society of Agronomy.

One of these new fungicides, designated RH-124, will effectively control leaf rust on spring wheat when applied as a spray at 0.4 pounds per acre to the soil surface three weeks after planting, Rowell said.

Another of the new fungicides, ethirimol, applied to barley seed at 16 ounces per hundredweight effectively controls powdery mildew, he said.

When presently available fungicides are used, maintenance of adequate protection throughout the vulnerable period of crop development often requires numerous applications of relatively large amounts of chemical, Rowell said.

If present fungicides had been used to control southern corn blight in 1970, four applications at one to two pounds per acre would have been needed on about half of the 66 million acres of corn. "A massive chemical assault with approximately 200 million pounds of fungicides would have resulted." Such use of fungicides is uneconomical, Rowell explained.

(Release August 16, 1971)

NEW ALFALFA  
RESISTS ROT ROOT

New York, N. Y.--The statement, "alfalfa cannot tolerate wet feet" may soon be classified as an old wives tale. An experimental alfalfa resistant to Phytophthora root rot has been developed by University of Minnesota scientists and has shown promise for growing on poorly drained soils.

"We think Phytophthora resistant alfalfas will be an important breakthrough for many areas of the country," Donald K. Barnes, an agronomist with the University of Minnesota and the Agricultural Research Service said today (Aug. 16) at the annual meeting of the American Society of Agronomy. The research was conducted by Barnes and F. I. Frosheiser, a plant pathologist with the University and the Agricultural Research Service and graduate student Shyh-Jane Nancy Lu.

The most recent test, begun this spring, shows that alfalfa resistant to Phytophthora, one of the fungi which causes root rot, can grow in southeastern Minnesota areas where farmers have often had trouble establishing and maintaining alfalfa stands. Conventional alfalfa planted there by the researchers has developed root rot while the resistant alfalfa has remained healthy.

The researchers first isolated alfalfa plants resistant to the fungus Phytophthora megasperma in 1968. The frequency of root rot resistant alfalfa plants has been boosted about 10 times over the presently available varieties of alfalfa.

In preliminary trials, under Phytophthora conditions, the new resistant strains have increased forage production and root production nearly 50 percent over the presently available strains of alfalfa.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 16, 1971

To all counties  
  
Immediate release

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and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 16, 1971

To all counties  
Immediate release

CORN SILAGE TIPS  
FOR DAIRY FARMERS

A good job of harvesting your corn silage will insure a palatable and nutritious feed and save you money next winter.

Here are some tips from Michael Hutjens, extension dairyman at the University of Minnesota.

- \* Dry matter content of the corn plant should be 30 to 40 percent.
- \* Chop the silage  $\frac{1}{4}$  to  $\frac{3}{8}$  inches long.
- \* Use a distributor at the end of the blower to prevent separating the leaves and light material from coning.
- \* Fill rapidly to exclude oxygen and prevent spoilage.
- \* Up to 10 pounds of urea per ton of forage may be added safely. Make sure it's spread evenly.
- \* Adding limestone or silage preservatives has not increased milk production. However, adding nutrients in the form of grains may be practical in some situations, Hutjens says.
- \* Capping off the top of the silo with a plastic cover or similar material will reduce spoilage and oxidation.
- \* Be extremely careful to prevent silo gas poisoning--it's lethal.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 16, 1971

To all counties  
Immediate release

IN BRIEF. . . .

Two Sides to Fall Nitrogen. If you're considering applying nitrogen in the fall, University of Minnesota soils specialists say there are two sides to the story. Advantages of fall nitrogen applications are that you're assured of getting nitrogen on the fields--you can make the applications when you aren't so busy--and spreading equipment is more apt to be available.

However, the soils scientists say nitrogen applied in the fall could be less effective than spring applications where there's good rainfall. Excessive rains in fall or early spring may increase losses on fall-applied nitrogen.

Research shows there's no difference between fall and spring nitrogen applications when the rate is above 100 pounds per acre. But at rates of 40 pounds or less you may see greater difference between spring and fall applications.

\* \* \* \*

Soil Test Program Simplified. The University of Minnesota's computerized soil testing program has been simplified by eliminating corrective recommendations that have been included on report forms farmers have received from the laboratory in the past. Seeding time fertilizer recommendations and top dressing recommendations for alfalfa will be sent this year, Soils Specialist William Fenster said. The reporting form has been further simplified by giving only the oxide forms of phosphorus and potassium, which correspond to fertilizer bag label information. Fertilizer and lime recommendations for all crops appear in the University publication, "Special Report Number One," available from the \_\_\_\_\_ County Extension Office.

\* \* \* \*

-more-

add 1--in brief

Consider Crib, Grainery Storage. Dairy farmers should store their corn grain crop for maximum feed value and profit, Michael F. Hutjens, extension dairyman at the University of Minnesota, says. Crib or grainery storage is feasible in southern Minnesota where corn reaches maturity, but in other areas corn may not reach maturity due to late planting, an early frost or poor growing conditions.

\* \* \* \*

Check With Elevator Now. Check with your local elevator operator now to find out if he can handle all your corn at harvest time, Michael F. Hutjens, University extension dairyman, says. Local grain elevators may have drying equipment, but during the fall rush everyone wants to use the driers. Illinois researchers say the grain's moisture content should be no more than 26 percent. Otherwise, the cost is excessively high to dry it down to 13 percent.

\* \* \* \*

Keep Compost Piles Moist. Sprinkling is required, especially during dry weather and the early stages of decomposition, to keep a compost heap moist, University soil scientists say. After the interior material has rotted, the entire pile should be forked over and the undecomposed outside material turned toward the center. For more information, get Soils Fact Sheet No. 12-1970, "Building A Compost Heap," from the \_\_\_\_\_ County Extension Office 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  
August 16, 1971

To all counties

ATT: Extension Home Economists

Immediate release

CHILD'S SCHOOL  
NEEDS INCLUDES  
EMOTIONS, TOO

"Parents, don't overlook your child's emotional needs while you are busy getting clothes and shoes ready for first grade."

This advice from Ronald Pitzer, extension specialist in family life at the University of Minnesota, applies to older school goers as well as six-year-olds.

Pitzer calls six a difficult age and first grade a momentous step because a pattern of life is changing. The socialization process is beginning and for the first time (other than at the baby sitter or kindergarten) there will be a planned day under the direction of a teacher. For the first grader it means leaving a lifetime of vacation and starting an adult, 8-5-type routine.

Somehow parents often expect a completely transformed, self sufficient child with the arrival of first grade. Pitzer said six-year-olds do want to wash, brush teeth, dress, without mother's help. There are new friends at school who don't live in the same block. A child wants to read independently and seems to have become a big boy or a big girl.

Perhaps it's this impression of self-sufficiency that allows some of their emotional needs to be overlooked.

The need for giving and receiving affection is ever present. For one thing, age six can be one of the most unattractive times in life: baby teeth are falling out leaving great gaps in smiles, legs may be getting long and spindly, summer may have blossomed freckles and teasing always seems to follow. "Let's face it, the six-year-old probably isn't receiving the kind of attention he did as a toddler," says Pitzer. He needs to know, more than ever, that he is loved and valued by the most important people in the world--his family. Probably the time he needs love most is when he is least lovable."

add 1--child's school needs

By the time he starts school, learning and growing aren't new to the parents who made so much of his first word and first step. Accomplishments are sort of taken for granted. "But none of us is so old that we don't like a little appreciation," Pitzer emphasizes.

One study of a group nursery school age and then a few years later showed, the children, when older, received less praise but more disapproval from their parents. Parents were inclined to ignore them until they did something wrong.

True, six-year-olds are past the stage of lap sitting and wanting to be cuddled (at least not in public), but parents can show interest and affection in other ways.

A bedtime story is a real treat. Have dad read it. Children need their father's as well as their mother's companionship, Pitzer says. Take a short walk to see a house being built or a street paved (fascinating to boys and girls and interesting to parents). Play catch, fish, picnic, camp. Just being included on a trip to buy gasoline for the car or milk for breakfast indicates interest.

Listening is important, too. How often adults realize by the next sentence uttered that their adult listener hasn't been listening at all. Children face this even more frequently. "Listening with interest tells another that we value him or her as a person and that we really love them. Being cut off repeatedly with 'we're too busy to listen' may at age six be losing the confidence you will greatly need when he or she reaches the teens," Pitzer warns.

Encourage a hobby that interests your six-year-old whether it be rock collecting, making model airplanes or sewing doll clothes.

Playing games is another good way for the family to get together physically and emotionally. Children, 6-8, like dominoes, checkers, old maid, jigsaw puzzles, guessing games and riddles. Older children will have fun with games that involve reading, math, geography and spelling.

Spending some time with each other and exchanging ideas is what's important.

(Release August 16, 1971)

NO YIELD GAIN  
FROM UPRIGHT CORN  
LEAF TYPE

New York, N. Y.--It has often been thought that corn hybrids with an upright leaf type could be planted closer together for greater yields than corn hybrids with a horizontal leaf type.

This may not be so, say scientists at the University of Minnesota who studied the corn yield response to various population densities of corn hybrids with differing leaf types.

In experimental plots, three groups of six hybrids each--one upright type, one horizontal type and one intermediate group--responded about the same to population increase said University agronomists D. R. Hicks and R. E. Stucker who presented their findings today (Aug. 16) at the annual American Society of Agronomy meeting.

The upright hybrids were somewhat higher yielding but none of the upright hybrids appeared to be more tolerant of population density than the horizontal hybrids, they said.

The entire genetic makeup of the plant is more important in determining its response to population stress than is the effect of leaf type, they explained.

In striving for higher yields, corn farmers have increased the number of plants per acre. In some cases, corn hybrids have been planted at rates higher than their optimum number of plants per acre, and lower yields due to an increased number of barren plants have resulted. Competition among plants for sunlight, water, atmospheric carbon dioxide, and plant nutrients may be responsible for the decreased yield, they said.

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# AGRICULTURAL EXTENSION SERVICE • UNIVERSITY OF MINNESOTA

## *Food for Better Health Program*



An Expanded Food  
and Nutrition Education Program  
in Home Economics Extension

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 16, 1971

To all counties

ATT: Extension Home Economists

Immediate release

### SANDWICH MONTH AND AUGUST PLENTIFUL FOODS GO HAND IN HAND

August is set aside again this year as "Sandwich Month."

It is most appropriate that wheat products head the list of August plentiful foods, says \_\_\_\_\_ County Extension Home Economist \_\_\_\_\_.

Bread is the first wheat product most people think of. Besides bread, however, wheat products include macaroni, spaghetti and noodles.

For most households, every month is "sandwich month." During the school year, and for many working wives and husbands, sandwiches form the main ingredient for their noon lunch. It takes a lot of ingenuity to keep sandwiches interesting, tasty and satisfying.

One study showed that the peanut butter-jelly sandwich is the most popular with children. It could be, this is one they can make easily, plus the fact it tastes good. To vary it a little, add some crumbled left-over bacon from breakfast to the peanut butter. This adds crunch and extra food value. Use jam or marmalade to add variety to the jelly side.

Usually you don't need a recipe for sandwich filling. Use whatever protein food you have available, such as meat, cheese, peanut butter, chicken, tuna fish, hard-cooked eggs to form the main ingredient. Next add something that will increase flavor such as chopped pickle, chopped pepper or onion. Season with salt and pepper and flavored salt (garlic) adds interest. Last you need something to hold the ingredients together. This usually is a mayonnaise-type salad dressing. Extras, such as lettuce, can go along to be added at lunch-time.

Teach your children to make their own sandwiches. It will relieve you of a routine task and may improve your child's eating. It's a sure thing he'll fix sandwiches he enjoys eating.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 16, 1971

To all counties  
4-H NEWS  
Immediate release

COUNTY JUDGING  
TEAMS WILL COMPETE  
AT STATE FAIR

4-H general livestock and dairy judging teams from \_\_\_\_\_ County  
(Name)

will compete for state honors at the Minnesota State Fair on Thursday, September 2.

The general livestock team will be competing with nearly 40 other teams while the dairy team will be vying with 50 other county teams.

Members of the \_\_\_\_\_ County general livestock judging team are: (include  
(Name)  
names, ages and addresses). The coach is \_\_\_\_\_ from \_\_\_\_\_.

Members of the \_\_\_\_\_ County dairy judging team are: (list names, ages  
(Name)  
and addresses). Coach of the team is \_\_\_\_\_ from \_\_\_\_\_.

The top general livestock judging team will compete in the National 4-H livestock Judging Contest at the International Livestock Exposition in Chicago. The second place general livestock judging team winners will compete at the American Royal Judging Contest, Kansas City, Missouri. Both trips are sponsored by the Minnesota Livestock Breeders Association and the Minnesota State Fair.

The first place dairy judging team in the State Fair competition will represent Minnesota at the National Dairy Contest, Columbus, Ohio, this fall. The trip is sponsored by the Hubbard Milling Company, Mankato; the Minnesota Livestock Breeders Association and the Minnesota State Fair.

The second place winners in the dairy judging contest will receive a trip to the World Dairy Exposition, Madison, Wisconsin, sponsored by the Minnesota State Fair.

"Participating on a judging team helps a 4-H'er recognize high quality livestock, develop his communicative skills through oral reasons and learn effective methods of defending his opinion," according to Earl Bergerud, assistant state leader 4-H and youth development at the University of Minnesota.

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and Agricultural Journalism  
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St. Paul, Minnesota 55101  
August 16, 1971

To all counties  
Immediate release

CORN SILAGE TIPS  
FOR DAIRY FARMERS

A good job of harvesting your corn silage will insure a palatable and nutritious feed and save you money next winter.

Here are some tips from Michael Hutjens, extension dairyman at the University of Minnesota.

- \* Dry matter content of the corn plant should be 30 to 40 percent.
- \* Chop the silage  $\frac{1}{4}$  to  $\frac{3}{8}$  inches long.
- \* Use a distributor at the end of the blower to prevent separating the leaves and light material from coning.
- \* Fill rapidly to exclude oxygen and prevent spoilage.
- \* Up to 10 pounds of urea per ton of forage may be added safely. Make sure it's spread evenly.
- \* Adding limestone or silage preservatives has not increased milk production. However, adding nutrients in the form of grains may be practical in some situations, Hutjens says.
- \* Capping off the top of the silo with a plastic cover or similar material will reduce spoilage and oxidation.
- \* Be extremely careful to prevent silo gas poisoning--it's lethal.

# # # #

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and Agricultural Journalism  
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University of Minnesota  
St. Paul, Minnesota 55101  
August 16, 1971

To all counties  
ATT: Extension Home Economists  
Immediate release

CHILD'S SCHOOL  
NEEDS INCLUDES  
EMOTIONS, TOO

"Parents, don't overlook your child's emotional needs while you are busy getting clothes and shoes ready for first grade."

This advice from Ronald Pitzer, extension specialist in family life at the University of Minnesota, applies to older school goers as well as six-year-olds.

Pitzer calls six a difficult age and first grade a momentous step because a pattern of life is changing. The socialization process is beginning and for the first time (other than at the baby sitter or kindergarten) there will be a planned day under the direction of a teacher. For the first grader it means leaving a lifetime of vacation and starting an adult, 8-5-type routine.

Somehow parents often expect a completely transformed, self sufficient child with the arrival of first grade. Pitzer said six-year-olds do want to wash, brush teeth, dress, without mother's help. There are new friends at school who don't live in the same block. A child wants to read independently and seems to have become a big boy or a big girl.

Perhaps it's this impression of self-sufficiency that allows some of their emotional needs to be overlooked.

The need for giving and receiving affection is ever present. For one thing, age six can be one of the most unattractive times in life: baby teeth are falling out leaving great gaps in smiles, legs may be getting long and spindly, summer may have blossomed freckles and teasing always seems to follow. "Let's face it, the six-year-old probably isn't receiving the kind of attention he did as a toddler," says Pitzer. He needs to know, more than ever, that he is loved and valued by the most important people in the world--his family. Probably the time he needs love most is when he is least lovable."

add 1—child's school needs

By the time he starts school, learning and growing aren't new to the parents who made so much of his first word and first step. Accomplishments are sort of taken for granted. "But none of us is so old that we don't like a little appreciation," Pitzer emphasizes.

One study of a group nursery school age and then a few years later showed, the children, when older, received less praise but more disapproval from their parents. Parents were inclined to ignore them until they did something wrong.

True, six-year-olds are past the stage of lap sitting and wanting to be cuddled (at least not in public), but parents can show interest and affection in other ways.

A bedtime story is a real treat. Have dad read it. Children need their father's as well as their mother's companionship, Pitzer says. Take a short walk to see a house being built or a street paved (fascinating to boys and girls and interesting to parents). Play catch, fish, picnic, camp. Just being included on a trip to buy gasoline for the car or milk for breakfast indicates interest.

Listening is important, too. How often adults realize by the next sentence uttered that their adult listener hasn't been listening at all. Children face this even more frequently. "Listening with interest tells another that we value him or her as a person and that we really love them. Being cut off repeatedly with 'we're too busy to listen' may at age six be losing the confidence you will greatly need when he or she reaches the teens," Pitzer warns.

Encourage a hobby that interests your six-year-old whether it be rock collecting, making model airplanes or sewing doll clothes.

Playing games is another good way for the family to get together physically and emotionally. Children, 6-8, like dominoes, checkers, old maid, jigsaw puzzles, guessing games and riddles. Older children will have fun with games that involve reading, math, geography and spelling.

Spending some time with each other and exchanging ideas is what's important.

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4-H NEWS  
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Institute of Agriculture  
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St. Paul 55101 Tel. 373-0710  
August 17, 1971

Immediate Release

## DON'T WASTE TIME FREEZING POOR QUALITY FOOD

Freezing poor quality or less than fresh foods just because they'd go to waste otherwise is the wrong approach toward freezing. Only good quality foods should be frozen because food doesn't improve in quality with freezing, Shirley T. Munson, food scientist at the University of Minnesota, says.

With sweet corn, for instance, and all vegetables, she recommends a quick hike from the garden to the house to process them for the freezer. A delay of more than a few hours from picking to processing with corn is apt to result in significant loss of quality if it is refrigerated, she advises.

She points out it is still necessary to scald corn properly before freezing or it may have a taste like hay or the cob or be mushy. Each year she talks to homemakers who have heard corn can be frozen right in the husk. "We definitely recommend proper scalding and cooling," she says. Corn should be husked, all silks removed and ends trimmed. In a very large kettle (allowing one quart of boiling water for each ear of sweet corn) medium size ears should be scalded eight minutes and larger ears 11 minutes. Corn should be scalded in a covered kettle. The same boiling water can be added to for new batches of corn. When the water begins to look murky, it's time to change it, she says.

From the scalding water, plunge corn immediately into cold water; this generally means water with ice cubes in it unless the water supply is very cold well water. Ears must be submerged in the ice water to cool the cob thoroughly. Cooling takes twice as long as scalding--usually 16 to 20 minutes.

-more-

add 1--freezing poor quality

She cautions not to process too much corn at once and to be sure before starting that adequate cooling space is available.

To answer nearly any question about freezing foods, Bulletin 244, Freezing Foods for Home Use, is available by writing the Bulletin Room, University of Minnesota, St. Paul, Minn. 55101.

# # #

159-mko-71

(Release August 17, 1971)

ALFALFA WITH OATS  
GIVES HIGHEST RETURN

New York, N. Y.--Alfalfa established with oats for grain should give Minnesota farmers greater profits as long as they have no difficulty getting alfalfa stands in oats, according to a University of Minnesota study.

For the farmer who has difficulty getting stands in oats, the no oat-herbicide approach will give better results because nearly all competition with the alfalfa seedlings is eliminated, said University agronomists A. R. Schmid and R. Behrens who presented their results today (Aug. 17) at the annual meeting of the American Society of Agronomy.

The results are based on experiments at University of Minnesota experiment stations using prices of \$25 per ton for alfalfa hay, 60 cents per bushel for oats and \$15 per ton for straw.

A net return of about \$46.60 per acre was obtained using oats for grain. When oats were grown for hay, the net return was \$26.30 per acre while alfalfa hay netted \$19 per acre profit. These net returns exclude costs common to the two methods such as seed bed preparation and taxes.

For farmers who have difficulty obtaining alfalfa stands due to oat competition or delay in removing the windows, establishment with herbicides may be the answer. On many farms that have problems with soil erosion control, however, an oat companion crop may be necessary.

Improvements in alfalfa yields through better varieties or changes in cost-price relationships could increase economic returns for alfalfa grown alone, the researchers reported.

For alfalfa grown alone under Minnesota conditions, early spring seedings are necessary to obtain two cuttings with maximum yields in the year of establishment.

Department of Information  
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(Release August 18, 1971)

NITROGEN FIXATION KEY  
TO BIGGER SOYBEAN YIELDS

New York, N. Y.--The key to increased soybean yields may very well be the ability of soybeans to incorporate or "fix" nitrogen in soil and not fertilization with commercial chemicals, according to University of Minnesota scientists.

In experiments, comparing a nonnodulating soybean variety, which cannot "fix" nitrogen, with a nodulating soybean variety, one pound of nitrogen fixed by the nodulating variety proved to be the equivalent of 3.2 pounds of fertilizer nitrogen, according to University soil scientist George E. Ham, who presented the findings today (Aug. 18 a.m.) at the annual American Society of Agronomy Meeting.

Yield increases in southern Minnesota plots were boosted 30 to 40 percent with nodulation when compared to nonnodulating soybeans, Ham said. Further yield increases could be achieved by better nodule-forming bacteria which "fix" nitrogen.

"Since attempts to increase yields through fertilizer nitrogen have been consistently negative, the logical approach to improve nitrogen nutrition appears to be the nodulation process," Ham explained.

Many experiments have demonstrated that the response of soybeans to fertilizer nitrogen is not economical, Ham stated.

An increasing supply of soybeans in the United States may likely be the major commodity responsible for improving the nourishment of the world's developing countries as well as a segment of our own population who are in dire need of foods with improved protein content, Ham said.

In 1970, the United States produced 74 percent of the world's soybeans on about 40 million acres.

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Department of Information  
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St. Paul, Minnesota 55101  
August 13, 1971

Release August 18, 1971

NEW FUNGICIDES  
DEVELOPED BY  
RESEARCHERS

A new group of fungicides are being developed that may be more economical than present fungicides.

The new chemicals show promise in controlling pathogens on large field crop acreages with minimal labor and relatively small amounts of chemical, according to J. B. Rowell, a plant pathologist with the University of Minnesota and the Agricultural Research Service.

The new fungicides give internal protection against pathogens as compared to presently available fungicides that act on external plant surfaces to shield the plant against pathogen invasion, Rowell said today (Aug. 18) at the annual meeting of the American Society of Agronomy.

One of these new fungicides, designated RH-124, will effectively control leaf rust on spring wheat when applied as a spray at 0.4 pounds per acre to the soil surface three weeks after planting, Rowell said.

Another of the new fungicides, ethirimol, applied to barley seed at 16 ounces per hundredweight effectively controls powdery mildew, he said.

When presently available fungicides are used, maintenance of adequate protection throughout the vulnerable period of crop development often requires numerous applications of relatively large amounts of chemical, Rowell said.

If present fungicides had been used to control southern corn blight in 1970, four applications at one to two pounds per acre would have been needed on about half of the 66 million acres of corn. "A massive chemical assault with approximately 200 million pounds of fungicides would have resulted." Such use of fungicides is uneconomical, Rowell explained.

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August 18, 1971

Immediate release

## GRADUATE COURSES IN HOME ECONOMICS TO BE OFFERED IN 1971-72

Graduate-professional improvement courses will be offered during the coming school year in 14 different locations throughout Minnesota by the University of Minnesota's College of Home Economics.

Purpose of the courses is to help professional home economists to upgrade and update their knowledge in particular areas and to provide graduate credit toward advanced degrees, according to Roxana R. Ford, associate dean. The classes are open to home economics graduates or others with appropriate background.

Classes are scheduled as follows for this fall: Problems--consumer textiles, Grand Rapids, Aug. 30-Oct. 25 and Robbinsdale, Sept. 14-Nov. 9; topics in clothing--consumer aspects, Moorhead and Morris, Sept. 1-Oct. 27; purchasing home furnishings, Virginia, Sept. 1-Oct. 27, and Wadena, Aug. 31-Oct. 26; secondary curriculum in home economics (consumer emphasis), Worthington, Sept. 1-Oct. 27 and Silver Lake, Sept. 13-Nov. 8; current developments in nutrition, Brainerd, Sept. 8-Nov. 3, White Bear Lake, Sept. 14-Nov. 16, and Thief River Falls, Sept. 16-Nov. 11; and the parent in American society, Bemidji, Sept. 16-Nov. 11.

Classes will be held in White Bear Lake, Burnsville, Robbinsdale, Anoka and Morris in early 1972.

All classes will be held from 6:30 to 9:30 p. m. for nine weeks unless other arrangements are made.

--more--

add 1--home ec graduate courses

Advance registration is required at least 10 days before the first meeting of any class. Further information about the classes is available by writing Roxana R. Ford, associate dean, College of Home Economics, University of Minnesota, St. Paul, Minn. 55101.

# # #

150-jbn-71

Department of Information  
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University of Minnesota  
St. Paul, Minn. 55101. Tel. 373-0710  
August 19, 1971

## PCB'S: POTENTIAL ENVIRONMENTAL POISON

In the alphabet of environmental contaminants, DDT may soon be replaced by PCBs.

Like DDT, PCB compounds are toxic and extremely persistent in the environment, but present no short-term danger.

Unlike DDT, PCBs are used in the production of some floor tiles, inks, asphalt highways, paints, varnishes, brake linings, flame retardants, electrical products, resins, and in a host of other everyday products.

"The most toxic PCB compound is probably about half as toxic as DDT on a long-term basis," University of Minnesota entomologist Laurence Cutkomp explained. Cutkomp has been testing the effect of PCBs on fish and insect enzyme systems which are vital to animal life processes.

As little as 25 parts per billion (ppb) of the most toxic PCB compound in water kills laboratory minnows in four days. Twenty-five ppb is equal to about 25 smutty wheat grains mixed with 1,280 bushels of wheat.

PCB concentrations, measured in a series of mothers' milk samples in Berkeley and Los Angeles, were found to average 60 ppb of the whole milk, according to University of California studies.

PCBs have been found in various species of birds in the arctic, California, and some Pacific islands. Concentrations have ranged from 37 ppb to nearly two parts per thousand in fatty tissues.

add 1--potential environmental poison

Monsanto Company, which produces the PCB compounds under the trade name Aroclor, says that PCBs are not highly toxic.

"In 90-day studies on rats and other normal laboratory species, there have been no adverse effects when feedings of up to 100 parts per million were administered," Monsanto says.

In recently completed two-year studies done by an independent research firm for Monsanto, however, rats and chickens had difficulty reproducing when exposed to PCB compounds in 10 ppb concentrations, according to a St. Louis Monsanto spokesman, Ed John.

The resemblance of how DDT and PCBs poison animals is striking in that both reduce birds' capacity to reproduce and cause egg shells to be thin and break easily.

Only at the cellular level does the resemblance finally end. DDT primarily reduces enzyme activity inside a cell part called the mitochondria. In some experiments, however, PCBs reduce activity in that same enzyme system, only mostly outside of the mitochondria. Either effect along with other responses to the poisons--in wildlife or humans--can kill.

Presently, no tolerance levels have been established by the Environmental Protection Agency of the federal government on PCB compounds.

Cutkomp stated that he felt the place to restrict the compounds--should further research show a need for that--is near to the source.

"The approach here would be to find out which PCB compounds are most toxic and then for the EPA to place restrictions on use of PCBs in certain products that are in common use by the public," he said.

Monsanto has taken the first step in this direction by eliminating sales of PCB compounds intended for items commonly used by the public including sealants, adhesives, speciality coatings and chlorinated rubber, John said.

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## SANDWICHES --QUICK TO FIX AND EAT

If sandwiches strike you as invention of someone in a hurry, you're right, says Beverly Lundgren, a home economist at the University of Minnesota.

The distinction belongs to the Fourth Earl of Sandwich, England, who was so caught up in an 18th century card game he ordered his meat brought to him between two slices of bread so he could play on, uninterrupted.

Today, Americans consume more than 226 million sandwiches a day, she says. Little wonder that the easy to fix, easy to eat, invention has a month--August--designated Sandwich Month.

Sandwiches come in nearly every style from plain to ultra fancy and can vary from snack to knife and fork type meal. Always a tasty standby is a peanut butter or peanut butter and jelly sandwich, she mentions. Grilled or toasted peanut butter sandwiches are popular, too.

Another sandwich, sloppy joes, a variation of the standard hamburger, is a favorite party fare for youngsters' birthdays. She browns a pound of ground meat with some chopped onion and adds a can of chicken gumbo soup and simmers until the soup is completely absorbed. She suggests making some ahead of time and storing it in the refrigerator or freezer. Some 40 billion hamburgers are devoured each year in the United States, she says. Submarine, hero, Reuben and Rachael sandwiches are substantial meal-type sandwiches.

-more-

add 1--sandwiches

Sandwich loaves, made with loaves of day old bread sliced length-wise, can be made in advance and refrigerated until time to serve. Filling can be anything from egg salad to caviar and the different colored layers give a ribbon effect when cut. The outside of the loaf can be frosted with softened cream cheese and decorated with olive slices, radish roses, pimiento or the designer's choice of edibles.

# # #

160-mko-71

Department of Information  
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Institute of Agriculture  
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St. Paul, Minnesota 55101  
August 23, 1971

To all counties  
Immediate release

EGG BREAKAGE  
CAN BE REDUCED

The yearly loss to the U.S. egg industry from egg breakage--estimated at more than \$60 million--can be reduced, says Melvin Hamre, a University of Minnesota extension poultry specialist.

Researchers have found that egg loss in a daily count of broken eggs under laying cages can average 3.9 percent. For a 10,000 hen flock, this would be a loss of more than \$2,000 during a year, Hamre says.

Factors affecting breakage include age of birds, diseases, nutrition and management.

Hens in their 15th month of lay can have egg breakage losses of 13.5 percent, according to one study. So when making decisions about extending the laying period for old hens, increased breakage is an important consideration, he says.

Bronchitis and Newcastle disease are among the most costly to the egg producer, so an adequate vaccination program and attention to sanitation procedures can't be over emphasized, Hamre says.

Management is vital; when workers are not properly trained or in a hurry, it is the flock owner who suffers. Time spent demonstrating proper handling procedures and stressing need for careful handling may pay dividends in reduced breakage, especially with part-time help.

Adequate nutrition can't be overlooked in providing eggs with strong shells. Shell strength and thickness can be improved by including both oystershell and ground limestone in the layers' ration. Vitamin D, phosphorous and manganese are also important in proper shell formation.

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To all counties  
Immediate release

NEW CORN BINS  
CAN BE CONVENIENT

Efficiency and convenience of corn drying and storage systems doesn't just happen--it is planned and built in, says University of Minnesota agricultural engineer Harold Cloud.

Factors to consider when building a system, he says, include location, drainage, arrangement of bins, adequate footings and foundations, and ample electrical service.

The location and arrangement of storage bins depends on the type of system--whether it is circular, in-line or the cluster type. Bins must be arranged to allow removal and replacement of unloading augers and sweep augers. They should be raised above ground level enough to allow trough augers or a transfer auger hopper to be placed under the unloading auger.

One way to make sure that new bins will be in the right place for present augers is to place the auger in position for discharge into the bin and attach one end of a tape measure to the auger discharge. The center of the bin will be where the tape hangs.

Foundations are a special problem for the wet holding bin. For example, a 1,500 bushel wet holding bin weighs at least 50 tons when loaded. If it is on four legs, each leg supports a minimum of 25,000 pounds. This means that for a typical clay soil, each footing should be at least 3½ feet square. Firmer soils may not require footings that large, Cloud says.

Adequate electrical capacity may mean that the system requires a 200 or 400 ampere entrance for dryers, transfer motors, aeration fans, cooling fans and other electrical equipment. Your local power supplier should be contacted to work out any details, Cloud said.

# # # #

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August 23, 1971

To all counties  
Immediate release

PLAN FOR LIME  
APPLICATIONS

Fall is a good time to apply lime so it will have enough time to make the soil "sweet" enough for early plant growth.

When you apply lime in the fall you can avoid the problem of spreading it on the soft fields in spring. Also, road restrictions often don't allow the transportation of heavy lime loads in the spring.

University of Minnesota soil scientists say acid soils in cropping systems that include a legume should receive lime 6 to 18 months before the new legume seeding is established. Apply lime in the fall for other cropping systems. However, it's better to apply lime at the time of seeding than not at all.

Spread the lime uniformly for best results, making sure that each application strip is lapped sufficiently to avoid alternating good and poor strips in the following year's crop. On large fields these strips may add up to several acres of poor alfalfa.

Work lime into the seedbed by disking or harrowing, then plowing to distribute lime throughout the plow layer where it will be within easy reach of seedling roots. The lime, disk or harrow and plow rule is especially important on strongly acid soils being limed for the first time, the scientists say.

Plowing without disking turns the lime under but does not thoroughly mix it with the soil. Topdressing established stands of alfalfa seldom gives satisfactory results until the lime is incorporated through tillage.

# # # #

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Immediate release

SOIL TESTS CAN  
PREVENT EXCESSIVE  
FERTILIZER USE

Farmers can lose a lot of money by using the wrong kind of fertilizer--or by not using enough.

High costs require maximum efficient use of each crop acre of crop land, and applying the right amount and combination of fertilizer nutrients is critical.

But the adage, "if some is good, more is better," doesn't necessarily apply with fertilizer rates, according to University of Minnesota soils specialists Lowell Hanson and William Fenster.

In the past 10 years fertilizer use has doubled in Minnesota, and most of this has been used effectively to raise crop yields to new economic highs, the soils specialists point out. In addition, fertilizer has helped improve the physical nature of soils by providing more crop residues for recycling organic matter back into the topsoil.

Also, erosion has been reduced by the protective canopy of healthy, fertilized crops.

However, nitrogen doesn't store well in the soil and rates greater than what can be utilized by the current crop are subject to losses. Nitrogen compounds go through a number of changes in the soil--especially by microorganisms--which can lead to the mobile nitrate form.

The mobile nitrate form has the same negative electrical charge as soil particles and may be leached out of the root zone into drainage tile or subsoil.

The amount of nitrogen loss from the root zone is difficult to evaluate, but recent measurements of tile drain water in south central Minnesota indicate that annual losses are often in the 40 to 50 pounds per acre range.

add 1--soil tests

To help minimize nitrogen loss, the specialists say soil tests should be used to get the correct amount applied for the specific soil and crop conditions involved. The growing concern for water pollution also argues for reasonable fertilizer rates.

Information from thousands of Minnesota field fertility experiments is stored in the University's computer program and is used to evaluate soil chemical tests to produce a scientific guide for fertilizer use.

A \$2 fee and a small box of soil in exchange for a fertilizer recommendation is one of the best programs around, Fenster and Hanson say.

The period from August through November is an ideal time to take advantage of the University soil testing service. See your county extension agent for more information.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 23, 1971

To all counties  
Immediate release

IN BRIEF. . . .

Treat Cattle Lice in Early Fall. Early fall is the best time to delouse the beef herd. Lice begin their buildup in fall and winter and may become established if you put the job off. Then you're faced with the problem of treating cattle during cold weather. Ask for Entomology Fact Sheet No. 5, entitled "Controlling Cattle Lice." It's available from the county extension office.

\* \* \* \*

Consider Storage Costs. Dairymen who are going to feed high-moisture corn should consider the costs of constructing airtight or conventional silos, renting silos or using an existing silo, University Extension Dairyman Michael F. Hutjens says. It may be possible to store your corn in silos owned by local grain elevators. One Minnesota firm charges eight cents a bushel for three months plus 1½ cents per bushel for each additional month.

\* \* \* \*

Surplus Pesticides Can Be Buried. At the end of growing season, Minnesota farmers are often faced with the problem of surplus pesticides. Small quantities of no more than one gallon of liquid or five pounds of solid material may be buried in properly supervised sanitary landfills approved by the Minnesota Pollution Control Agency. Larger quantities of pesticides should be returned to the manufacturer or stored properly until a disposal method becomes available.

\* \* \* \*

-more-

add 1--in brief

Hot Weather Can Damage Birch Trees. Warm summer soil temperatures can kill birch tree rootlets. This condition leads to a dieback of upper branches and the weakened birch tree is susceptible to attack by the bronze birch borer which hastens the tree's death.

University of Minnesota plant pathologists recommend soaking the ground around the tree during hot weather to help keep soil temperatures lower and provide needed moisture. Soil mulches may give added protection.

\* \* \* \*

Hot Weather Causes Leaf Scorch. A sudden and rapid loss of water from maple leaves during hot dry weather may cause leaf scorch, say University of Minnesota plant pathologists. Affected leaves have yellow or brown margins and often dead areas. Watering during hot dry weather may prevent or alleviate the problem especially on small trees.

\* \* \* \*

Drought Weakens Trees. Introduced species, like weeping birch, and recently planted trees are very susceptible to drought injury, says University of Minnesota extension plant pathologist Ward C. Stienstra. Branch dieback may be the direct result of drought but weakened trees also are susceptible to attack by insects and disease-causing parasites.

Species that are fairly drought resistant include: box elder, green ash, hackberry, locust, ponderosa pine, red cedar, and siberian elm.

# # # #

Department of Information  
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Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 23, 1971

To all counties

ATT: Extension Home Economists

Immediate release

PARENTS AFFECT  
CHILD'S ATTITUDE  
TOWARD SCHOOL

Is school this year going to be a good experience or a bad one for your child?

Parents may have more to do with answering this question than they might like to think, according to Ronald Pitzer, extension family life specialist at the University of Minnesota.

Parents' attitudes about school are bound to rub off on their children. "Whether we like it or not, children are copy cats and the models they'll most often copy are their parents," he says.

If school was something parents found enjoyable and challenging, their children probably will, too. If parents disliked school and remind their children of this fact, expect the children to dislike it, too.

A double standard seems to be operating here. Most parents want their children to like school and to do well there. Then, in just the opposite vein, parents often seem to assume children won't like school.

What's wrong with admitting school is interesting, even exciting?

Pitzer suggests taking the positive approach. Assume they will like school and enjoy learning. Too often learning or getting an education is thought of as happening just with classroom-taught subjects. Education is a process, rather, that starts the first day of life and continues a lifetime.

If for some reason a dislike of school does develop, search out the reason and look for remedies, he urges, but don't add to the problem by telling a neighbor in the child's presence, "Jack just hates school."

Realize it's to everyone's advantage that he or she had "darned better well not hate school." School is here to stay and important to everything later in life.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 23, 1971

To all counties  
ATT: Extension Home  
Economists  
Immediate Release

BACTERIA MAKES  
MANY EVERYDAY  
FOODS POSSIBLE

Just the word, bacteria, seems to conjure up impressions of germs and food poisoning leading to human illness and in severe instances, even death.

But there are helpful as well as harmful bacteria.

"If it weren't for the action of these so-called 'good' bacteria, we wouldn't have many of the foods we take for granted today," says Edmund A. Zottola, food microbiologist at the University of Minnesota. Tea, coffee and chocolate candy are just a few examples.

Bacteria may be in food naturally or the type wanted can be added from a bottle in which they've been grown. "We used to depend on naturally occurring bacteria entirely, now we add the kind we want for the flavor we're trying to obtain," he describes. Man can speed up or control many fermentation processes, but in some foods can't always duplicate what nature achieves.

Complete menus can be served just from fermented foods, which are foods resulting from natural or man induced bacterial action. Scientists keep track of which bacteria does what with long, Latin, scientific names.

How many of the following foods did you realize got that way through bacterial action of fermentation?

Tea. A fermentation process after tea leaves are picked (about an hour on racks in cool, humid fermenting rooms) turns them black. Green tea can be made from leaves off the same tea bush, but the enzyme present in the leaves isn't allowed to ferment.

add l--bacteria makes many everyday foods possible

Coffee. Fermentation takes place before the bean is roasted. There are patents on fermentation processes, all of which are designed to improve flavor.

Chocolate and chocolate candy. Natural fermentation removes the fruity pulp from around the cacao bean. It kills the seed and gives aroma, flavor and color to the bean.

Crackers. These undergo mild fermentation, either natural or induced with yeast, in the rising and mixing.

Rye bread and sourdough white bread. As in other breads using yeast, fermentation takes place through the yeast action. Though San Francisco claims to be the sole source of starter for sourdough bread, it can be duplicated if you have the correct type of bacteria, Zottola says. "Then, what is called the mother culture or starter can be kept and reused." The sour flavor comes from bacterial action.

Butter and margarine. Fermentation happens with a culture in butter and in many types of margarine. Skim milk is added and cultured 12-15 hours in the margarine-making process to give it a more butter-like flavor. Zottola says the process, too, is entirely for flavor.

Dry sausage, summer sausage and thuringer. These are all made using bacteria which develops the tangy acid flavor. The different spices used also influence taste.

Cheese. Cheese is produced from milk, allowing different types of bacteria to grow on/or in curd or milk to give it distinctive flavors. The actual blue-black portions of bleu cheese is a mold and lovers of bleu cheese with crackers or in salad dressing know it's perfectly edible. There are many types of cheese, even several kinds of soybean cheese as well as Swiss, cottage, cheddar, brick and processed cheese which are developed this way, he mentions.

Soy sauce. Used as flavoring in Oriental and American cooking, it is made from fermented soybeans.

Miso. A fermented soybean rice mixture is the basis of this Oriental food.

add 2--bacteria makes many everyday foods possible

Tempeh. This is also made from fermented soybeans, which have been soaked, boiled, dried and inoculated with mold. In about 20 hours the mixture grows a mat of mold, which is sliced and fried and "is really very tasty," Zottola adds.

Buttermilk and yoghurt. Buttermilk is obtained from milk which undergoes a culturing process. Yoghurt originates much the same way.

Sauerkraut, pickles and olives. Sauerkraut (made from cabbage), pickles (from cucumbers) and olives still depend on natural (Zottola refers to them as "native") types of fermentation. Food scientists are trying to develop a pure culture process for better flavor control and less spoilage.

Beer, whiskey and wine. All are made by fermentation processes. Beer, from grain, is developed through a slow fermentation. Whiskey is made from fermented mash of such grains as rye, corn, barley or wheat. Wine is usually fermented grape or berry juice, but wine can be made of nearly anything including dandelions.

After this recital, who wants to knock bacteria?

-mko-

## *Food for Better Health Program*



An Expanded Food  
and Nutrition Education Program  
in Home Economics Extension

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 23, 1971

To all counties

ATT: Extension Home Economists

Immediate release

### LUNCH BOX FOODS FOR HOT WEATHER

Many homemakers wonder what kinds of foods are safe for lunch boxes or bags during hot weather. According to Grace Brill, nutritionist with the Agricultural Extension Service, the following are safe possibilities:

First, sandwiches can be made on the spot. A wide-mouth thermos is a good investment. Rinse the thermos with cold water to cool it. And be sure food is cold when placed in the thermos.

Most sandwiches can be made ahead and frozen. These should be ready-to-eat by lunch time.

Cheese sandwiches will not spoil for several hours. Peanut butter sandwiches are a good hot-weather choice. Add crumbled, cooked bacon for some crunch.

Always include fresh fruit and raw vegetables in season. These are welcome on a hot day and won't spoil in the lunch pail. These foods are usually low in calories and are good when one is watching weight.

For dessert, cookies and cake are safe. Custards and puddings should not be included unless the lunch can be placed in the refrigerator.

A cool drink is always welcome. Vary this with iced tea, lemonade or other fruit drink or milk, unless your noon luncher prefers hot coffee or tea.

Avoid sending potato salad or sandwiches made from ham salad, egg salad or anything containing mayonnaise-type salad dressing. These spoil easily and can cause food poisoning.

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 23, 1971

To all counties  
4-H NEWS  
Immediate release

LIVESTOCK EXHIBITS  
SCHEDULED FOR  
STATE FAIR

About 1300 4-H livestock and poultry winners will compete at this year's Minnesota State Fair, including \_\_\_\_\_ 4-H'ers from \_\_\_\_\_ County. Livestock exhibitors will be: (list names, addresses and exhibits).  
(no.) (Name)

Pens and stalls for 4-H livestock will be ready by 7 a.m. Friday, September 3. All 4-H exhibits must be in place in the barns by 2 p.m. that day. The public is urged to come and see the livestock exhibits and talk with the 4-H'ers after that time.

All dairy and beef judging will be held on Saturday, September 4. Dairy will start at 8 a.m. and beef will start at 12:30 p.m. in the Hippodrome, says County Agent \_\_\_\_\_. All breeds will start judging with calf classes except grade Holsteins, which will start with advanced cow class.

Swine will be judged in the sheep barn also on Saturday, Sept. 4, beginning at 9 a.m. followed by sheep judging at 1:15 p.m. Judging of chickens and rabbits will start at 9 a.m. in the poultry barn. Duck, geese and turkey judging will begin at 2 p.m. in the poultry barn.

All showmanship contests will be held after the championship placing of the particular exhibit except the dairy contest which will be at 3:15 p.m. on Saturday, Sept. 4.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul 55101 Tel. 373-0710  
August 24, 1971

Immediate Release

## FARMERS SHOULD BENEFIT FROM ECONOMIC POLICY CHANGES

Farmers are expected to be among the gainers from the new economic policies initiated last week by President Nixon.

Both the wage-price freeze--the home remedy part of the policy--and the actions taken to change the world monetary system and foreign trade carry potential benefits for American farmers. This assessment was made by a University of Minnesota Professor of Agricultural Economics, Paul Hasbargen.

The wage-price freeze was initiated in an attempt to break the back of the inflation spiral that has plagued the U.S. economy for the past 6 years. "This spiral has been rapidly pushing up farm production costs," Hasbargen points out.

For all of U.S. agriculture, inflation has added \$9 billion--an increase of about one-third--to production costs in the past 6 years. This represents an increase of over \$2900 per farm--an increase that has not been matched by increases in farm product prices and has added to the cost-price squeeze on farmers.

This means if the new wage-price freeze helps control inflation, farm income can benefit from slowdown in the farm cost spiral.

However, the economist points out that the price freeze on processed agricultural products will also prevent a price increase for farm products.

add 1--economic policy changes

For the 90-day period this will not be any real constraint since most farm product prices are making their seasonal downswings.

Crop prices are usually at seasonal lows during fall harvest. Hog prices are typically lowest in the last quarter of the year, and beef prices were expected to decline some this fall.

"So the 90-day freeze will not adversely affect these prices. However, a continuation of the policy could put a ceiling on some farm product prices in the year ahead," Hasbargen adds.

The second thrust of the new policies --the moves to bring about a devaluation of the dollar relative to foreign currencies --could also help American farmers by expanding foreign markets for farm products.

The rapid inflation of the past 6 years has put our dollar out of line with some foreign currencies --especially Germany's and Japan's according to Hasbargen. "So if the President's actions are successful in causing a relative devaluation of the dollar, our feed grains and soybeans will be more competitive in foreign markets, allowing the American farmer to expand his market.

"On the other hand, farmers as consumers will pay more for imported products --especially as long as the 10 percent surcharge is still in effect. And, if these moves in the international monetary front trigger a trade war with other major powers, the longer term effect could be detrimental to farmers both as producers and consumers," Hasbargen concludes.

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Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul 55101 Tel. 373-0710  
August 24, 1971

Immediate Release

## MORE THAN 4,000 4-H'ERS WILL ATTEND MINN. STATE FAIR

More than 4,000 4-H'ers from every Minnesota county will attend the State Fair Aug. 28-Sept. 6,--demonstrating, exhibiting, showing livestock and taking part in other activities.

The 4-H'ers range in age from 11 to 19 years--some attending the fair for the first time while others are veteran State Fair exhibitors or demonstrators.

Each county delegation has been assigned two days for State Fair participation. Thus all demonstrators, dress revue participants and exhibitors--except livestock exhibitors--from a county will attend the fair together for the same two days. Exhibits may be seen in the 4-H Building on the fair grounds.

The state 4-H horse show and judging contest is a new event at the fair this year. 4-H'ers will exhibit about 250 horses, some 20 judging teams will compete and many will demonstrate Thursday, August 26, at the Hippodrome and judging arena.

Non-livestock exhibits will be judged at various times throughout the fair by extension agents and others, in conference with 4-H participants. Members will hear evaluations of their exhibits, learn what factors are considered in judging and in some cases take tours related to their projects.

-more-

add 1--4-hers at state fair

About 800 demonstrators will give demonstrations on the first floor of the 4-H Building during the first eight days of the fair, beginning at 8 a. m. Friday, August 27, continuing through Friday, Sept. 3. Livestock demonstrations will be given Labor Day in the sheep barn, and working demonstrations are scheduled throughout the fair on the center platform in the 4-H Building.

Four public dress revues will feature about 275 4-H girls modeling clothing they have made. The revues will be held Saturday, August 28; Monday, August 30; Wednesday, Sept. 1; and Friday, Sept. 3.

The State Share-The-Fun Festival will be held Wednesday evening, Sept. 1, in the 4-H Building. The program will feature talented 4-H'ers from all over Minnesota.

4-H and FFA tractor driving experts will compete for state awards in the tractor driving contest, with preliminary driving events at 8 a. m. Thursday, Sept 2, and finals at 9 a. m. Friday, Sept. 3 in front of the 4-H Building.

General livestock and dairy judging teams will vie for honors on Thursday, Sept. 2. Forty general livestock and fifty county dairy judging teams will compete.

The 4-H livestock show will be the highlight of the fair for some 1,300 4-H'ers. This year 4-H'ers will exhibit 665 dairy cattle, 170 gilts, 104 ewe lambs, 140 beef heifers, 145 pens of poultry and 102 pens of rabbits.

4-H activities will be shown in 77 county booths and more than 1,200 other exhibits are on display on the main floor of the 4-H Building. They will show what 4-H'ers are doing in community service, the Youth for Natural Beauty program and such projects as food science and food preservation, clothing, home improvement-family living, electric, shop, agronomy, photography and entomology and horticulture.

The public is invited to attend all 4-H activities during the fair.

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162-11h-71

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul 55101 Tel. 373-0710  
August 26, 1971

SPECIAL

## OFFICIALS TO BREAK GROUND FOR \$3.1 MILLION UM BUILDING

A groundbreaking ceremony will be held at 10 a.m. Friday (Sept. 3) to start construction of the \$3.1 million Classroom-Office Building at the University of Minnesota's St. Paul Campus.

The five-story building is expected to be ready for use in the fall of 1972. It will contain 107,114 square feet of floor space and will house the department of agricultural and applied economics, agricultural education, rural sociology and applied statistics.

The new building will be linked to the campus administration building and the library by skyramps. The general contractor is M.A. Mortenson Co., Minneapolis, and the architectural firm is Griswold and Rauma Architects, Inc., Minneapolis.

Participating in the groundbreaking ceremony will be Elmer L. Anderson, chairman, University Board of Regents; University President Malcom Moos; Sherwood O. Berg, dean, Institute of Agriculture; Willis L. Peterson, associate professor, Department of Agricultural and Applied Economics; State Sen. John Olson, chairman, Legislative Building Commission; Marlyn Wacholz, president, Minnesota Vocational Agriculture Instructors' Association, and Norris Carnes, vice chairman, Institute of Agriculture Advisory Council.

# # #

daz-71

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul 55101 Tel. 373-0710  
August 26, 1971

Immediate Release

#### 4-H'ERS HELP MINNESOTA DEER, PHEASANTS

Minnesota pheasants and deer have many survival problems but 4-H'ers are trying to make life easier for them.

The Minnesota deer population is unusually low this year, and the pheasant population is still recovering from an extreme low in 1969. 4-H'ers are trying to boost the populations by providing better habitat and informing the public about the animals' survival problems through the 4-H wildlife habitat improvement program.

"4-H'ers are concerned with the pheasant's habitat because the loss of natural cover poses the most serious threat to the bird's future," according to Merlyn Wesloh, wildlife project coordinator for the Minnesota Department of Natural Resources. Habitat improvement must be the first step in increasing the pheasant population, since even raising the birds and releasing them on farms won't increase the population if habitat isn't available," Wesloh said.

Safe nesting for pheasants is rapidly disappearing due to modern farming methods, urbanization, and early roadside mowing. What's good for modern farming may or may not be good for pheasants. Early mowing of alfalfa makes nutritious hay, but destroys many hens and nests. Only 5 percent of the eggs in an alfalfa field will hatch. 4-H'ers are helping by gathering the eggs that are abandoned by a maimed or dead hens hatching the eggs and releasing the chicks in areas with good cover and food.

-more-

add 1--4-h'ers help

Pheasants are nesting in roadside ditches in order to find better cover. "The effects of early roadside mowing are disastrous because 25 percent of the eggs are laid in roadside nests," according to Wesloh. 4-H'ers recognize this problem and talk to many farmers each year urging them to delay roadside mowing until July 15 when most hatching is finished.

Farm crops comprise most of a pheasant's diet. Corn, soybeans, oats and other grains make up 50 to 75 percent of his food from spring to fall and up to 90 percent in the winter. Grain fields have declined to only a third of their former acreage, so food is limited. 4-H'ers are meeting this problem by planting many acres of corn and small grain for pheasant food.

The deer populations in Minnesota is so low that the fire arms season has been canceled this fall. The small number of deer in northeastern Minnesota is due to a food shortage and severe winters the past six out of seven years, according to Wesloh.

4-H'ers receive their habitat improvement information from local leaders and by touring state wildlife areas. Selected 4-H'ers from southwestern Minnesota who have excelled in the program have toured the Lac qui Parle wildlife Management Area during August, according to Wayne Carlson, assistant state leader, 4-H and youth development at the University of Minnesota. This management area specializes in Canadian geese, providing food and a resting place for about 31,000 geese migrating through Minnesota during late October.

add 2--4-hers helps

During the day 4-H members participated in a habitat improvement workshop where Wesloh discussed how an area can be improved to attract the type of wildlife that is available. Then groups of five or six 4-H'ers planned improvements on a 40 acre plot of land at the refuge. After the plans were complete, Wesloh talked with the group about their program and how it might be improved.

"The workshop gave the 4-H'ers an opportunity to see and work with the real limiting factors in wildlife habitat improvement," Carlson said. "I hope the teens learned some good wildlife habitat improvement principles and will be able to apply them on their own farms or in their community."

The 4-H Wildlife Habitat Improvement program is sponsored by Federal Cartridge Corporation of Minneapolis; Minnesota Pheasants Unlimited, Inc.; the Department of Natural Resources and the Agricultural Extension Service.

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11h-163-71

Department of Information  
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St. Paul 55101 Tel. 373-0710  
August 26, 1971

Immediate Release

## RURAL SETTING DEPRESSES COLLEGE ASPIRATIONS

Despite the advantages of country living, rural communities appears to depress college aspirations of rural high school students, according to a University of Minnesota study completed recently by sociologist Joel I. Nelson.

The study evaluated information from aptitude tests and questionnaires completed by thousands of Minnesotan public high school juniors in 1967.

The study did not determine exactly what factor or factors depress college aspirations of rural high schoolers, but it did list various explanations of the rural-urban differences in college aspirations.

For example, contrary to many beliefs, rural students register academic scores similar to those of urban students, Nelson said.

The study also found that rural students are as strongly encouraged to attend college as urban students.

Rural students are as likely and perhaps more likely to enjoy school as urban students.

Rural students do not reject college because of scarcity of family financial support, he said.

And the size of the rural student's high school doesn't seem to affect aspirations for college, Nelson said.

Possible factors in the urban-rural differences in aspirations for college by high school students may be the school facilities or personnel, Nelson said. Other factors might be selective migration or the influence of the student's peer groups, he said.

add 1--setting depresses college

The study findings suggest that the forces generated by encouraging rural students to attend college or by advanced academic aptitude can serve as a buttress against a rural environment that can potentially repress rural high schoolers aspirations for college, Nelson said.

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162-bjc-71

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 30, 1971

To all counties

Immediate release

DUST BAGS CONTROL  
INSECTS ON CATTLE

A relatively new method of controlling flies on dairy animals--the use of dust bags--could help dairy farmers and other cattlemen during the fly season.

Results of a two-year study by the University of Minnesota's Northwest Experiment Station, Crookston, indicate that the dust bag method is as good or better than fogging, fly cord, and manure pack treatment control methods, University dairy scientist George D. Marx said.

"The dust bag method of fly control, from our experience, is a satisfactory method of controlling insects. Very little labor is involved and this seems to be an economical and efficient method of controlling flies, particularly for animals in outside lots or on pasture," he said.

The bags were made of a specially designed burlap with a liner containing a pyrethrin type insecticide and were hung from a barn doorway in a loose housing situation. As animals rub against the bags, the dust filters through the bag and treats the animal.

Animals using the cattle dusting bags had sufficient protection from various insects including house flies, stable flies, horn flies and mosquitoes, while animals in a untreated lot had unsatisfactory fly control.

"We have noticed as many as 50 or more horn flies on the side of an animal in the untreated group, whereas horn flies on the dust bag treated group were reduced by 80 percent," Marx said.

-more-

add 1--dust bag control

One of the problems using the dust bag, he said, was getting insecticide on the legs, flanks and lower portions of the body. The stable fly was least effectively controlled on these areas.

Caution is advised in using dust bags on the market now, he said. Some contain insecticides which are approved for milking animals such as ciodrin and methoxychlor. Some insecticides such as Co-Ral, however, are not approved for lactating dairy cows and can only be used on nonmilking dairy animals or beef cattle.

Cattlemen can make their own dust bags using heavy burlap. Feed sacks cannot be used because they are too light and wear through in a short period of time. Bags are charged with 10-12 pounds of the insecticide and can be suspended with rope from a doorway or between two posts or trees so that the lower part of the bag is a few inches below the backs of the animals.

The dust bags cannot be used for horned cattle and should not hang directly over waterers or feed bunks, Marx said.

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and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 30, 1971

To all counties  
Immediate release

FALL PASTURE FERTILIZATION  
INCREASE FORAGE YIELDS

Fertilizing pastures now can increase forage yields as much as four or five times.

At this time of year, removal of grasses by foraging has reduced the ground nutrients to a summer low. Fertilization now could give pasture grass and legumes the boost they need, says University of Minnesota Extension Soils Specialist, Charles Simkins.

Simkins recommends these practices for pasture fertilization:

- \* On all pastures, have the soil tested now and apply fertilizer this fall.
- \* For cool season grasses such as brome, orchard grass, timothy grass, bluegrass and quack grass, apply nitrogen and phosphate or potash if needed.
- \* On legumes such as brome and alfalfa, phosphate and potash may be needed.
- \* No fertilizer is recommended on warm season grasses such as the blue stems and other warm season grasses.

After fertilization, weeds should be controlled with 2-4D or mowing.

Pastures should be intensively grazed after fertilization. If grasses are allowed to grow, they lose their quality and the benefits from a good fertilization program can be lost, Simkins says.

# # # #

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St. Paul, Minnesota 55101  
August 30, 1971

To all counties  
Immediate release

REDUCING STRESS  
HELPS PREVENT  
SWINE ARTHRITIS

Swine producers should keep stress to a minimum in order to help prevent arthritis, which causes large economic losses to the swine industry.

Damp, cool weather, transporting or moving the pigs, vaccination, poor nutrition, inadequate housing and parasites all cause stress, says Jerry Hawton, extension animal scientist at the University of Minnesota.

Arthritis is most prevalent in late fall or early spring when management often slips due to field work pressures. Weather is usually damp and cool at these times and poorly housed or bedded hogs can suffer substantial stress.

Symptoms of swine arthritis are lameness in one or more legs, Hawton says. Joints usually are swollen and look puffy. The lameness varies in severity and lasts for varying periods of time.

Some animals will walk with a stiff gait and may be reluctant to move. As the lameness becomes worse, the animal is reluctant to use the affected leg or legs. When rear legs are affected, the feet are carried well under the body with the back arched.

Joints that have the greatest amount of movement are the most susceptible, Hawton says. The shoulder and elbow joints on the front leg and the hock and stifle joints on the rear leg are usually the most susceptible.

-more-

add 1--reducing stress

There are two general types of swine arthritis--infectious and noninfectious. The infectious type is by far the most prevalent.

Noninfectious arthritis may result from conformation abnormalities, inadequate skeletal structure or other factors which may stress the joint. Apparently, nutrition defects seldom or never cause arthritis, Hawton says.

Producers who recognize arthritis symptoms should work with a veterinarian or at least consult with him to get advice on a program to follow. Swinemen who are treating arthritis infected stock at or near market weight should be aware of the pre-slaughter withdrawal requirements for the various drugs.

# # # #

Department of Information  
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St. Paul, Minnesota 55101  
August 30, 1971

To all counties  
Immediate release

IN BRIEF. . . .

Dispose of Pesticide Containers Properly. Combustible pesticide containers should no longer be destroyed by burning in Minnesota, say University of Minnesota extension entomologists. And no pesticide container should ever be salvaged or reused for any purpose. Such reuse is never worth the chance that trace amounts of pesticides in the containers might harm people, pets, livestock and wildlife.

Small combustible containers of five gallons or less should be buried in a supervised sanitary landfill approved by the Minnesota Pollution Control Agency. Larger 15, 30, or 55-gallon metal containers can be returned to a professional drum reconditioner.

\* \* \* \*

Seed Winter Rye Now. Winter rye should be seeded in northern Minnesota up until Sept. 10 and in southern Minnesota from Sept. 5-30. Winter rye seeded in August can be lightly grazed, but leave enough for ground cover, Ervin Oelke, extension agronomist, says. Plant rye in a firm, well prepared field, plowing in the fall, then discing, harrowing and drilling. Plant in six-inch rows at the rate of 1-1½ bushels an acre to a depth of 1-2 inches. Some fertilizer can be used in the fall for winter rye if you are not fallowing corn or soybeans.

\* \* \* \*

Plant Early in Fall. Landscape plants should be planted early enough in the fall so they will be established before the ground freezes, C. Gustav Hard, University of Minnesota horticulturist, advises. Potted plants extend the growing season considerably and can be planted successfully throughout the growing season if plenty of water is added after planting. Use a good organic top soil regularly when planting trees and shrubs.

\* \* \* \*  
-more-

add 1--in brief

Sample Soil to Proper Depth. Don't underestimate the importance of taking soil samples properly. For general field crops, the soil needs to be sampled about once every two years. However, high-value crop soils, soils under intensive use or greenhouse soils should be tested every year. A sample that's not representative of the field will give misleading results. When taking samples, scrape off all surface litter. On cropland, take a core of the surface soil to plow depth (6-9 inches). Sample permanent pastures, meadows and lawns to a depth of only three inches. Sample a row crop field between the rows.

\* \* \* \*

High Moisture Corn Can Be Fed. High moisture corn, either shelled or ear corn, can be fed to dairy cattle, Michael F. Hutjens, extension dairyman, says. If storage space is available, ensiled corn is recommended since the cob has feed value. Hutjens says the recommended moisture ranges are 25 to 35 percent for shelled corn and 28 to 36 percent for ear corn. The desired fermentation may not result if the moisture content has not reached these percentages.

\* \* \* \*

Space Shrubs Properly. Planning to landscape? The spacing of shrubs is important in establishing the landscape plan, according to C. Gustav Hard, University horticulturist. He suggests the following spacing: Large spreading shrubs from 8 to 12 feet in height, space 7 to 8 feet apart; medium shrubs 5 to 8 feet in height, space 5 to 7 feet apart; and small shrubs less than 5 feet in height, space 2 to 5 feet apart. Shrubs should be planted about three feet from the foundation of a building, with shrubs taller than five feet farther away and small shrubs closer than three feet.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota  
August 30, 1971

To all counties

4-H NEWS

For use as soon as you get  
results of judging teams  
and livestock show.

Adapt for your purpose

COUNTY 4-H'ERS  
PLACE IN STATE  
LIVESTOCK AND HORSE SHOW

\_\_\_\_\_ County 4-H'ers exhibiting livestock and horses at the Minnesota State Fair on Saturday, September 4, did a fine job, according to County Extension Agent \_\_\_\_\_.

(In the next paragraphs list livestock championships and reserve championships, plus name and address of 4-H'er and class of competition, and any other special honors like showmanship. Then list blue, red awards, etc.).

(In this paragraph give names and addresses of the 4-H'ers competing in the horse show, the awards won and classes participated in).

Honors also went to the (dairy, general livestock or horse judging team. Team members were (give names and addresses). (Mention if any members were in the top ten individual rankings and give team ranking).

\_\_\_\_\_ County was one of eight counties honored with a plaque for the good job the 4-H'ers did in the herdsmanship contest. Judging in this contest is based on cleanliness of stalls of all county 4-H exhibits, upkeep of stalls during the livestock show, arrangement of exhibits and the conduct of the 4-H exhibitors.

# # # #

Note: If your county is one of the 8 herdsmanship winners, you may want to use that award as the lead paragraph in the story.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 30, 1971

4-H NEWS

To all counties

For use as soon as you have results  
from your State Fair demonstrations  
exhibits and dress revue. Don't delay  
in getting results to news media.  
Adapt for your purpose

LOCAL 4-H'ERS  
GET AWARDS AT  
STATE FAIR

A number of 4-H boys and girls from \_\_\_\_\_ county received awards  
for excellence in demonstrations and exhibits at the Minnesota State Fair,  
according to an announcement from County Extension Agent \_\_\_\_\_.

Receiving ribbons for their demonstrations were:

Purple:

Blue:

Red:

White:

(Add a sentence or two on the subject of the purple and blue demonstrations).

Approximately 800 young people competed in the 4-H demonstrations during the  
10 days.

4-H'ers who received awards for their exhibits are: (List names, addresses,  
exhibit class and ribbon received. If your county booth received a ribbon, mention  
and describe the booth here).

\_\_\_\_\_, \_\_\_\_\_, was selected for the Court of Honor in the  
(Name) (Address)  
state 4-H Dress Revue. \_\_\_\_\_ wore (describe).

All Dress Revue participants modeled clothes they had made. More than 225  
girls from all over the state took part in the four dress revues during the State  
Fair.

In addition to the fact that every 4-H'er who demonstrated or exhibited at  
the State Fair received an award, \_\_\_\_\_ County 4-H'ers agree that attending  
the fair was an interesting and educational experience, \_\_\_\_\_ said. About  
4,000 4-H members from all parts of Minnesota took part in the State Fair  
activities.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 30, 1971

To all counties

ATT: Extension Home Economists

Immediate release

BEFORE SEPTEMBER 10  
BEST TIME OF YEAR  
TO SEED NEW LAWN

If you're thinking about seeding your lawn, don't wait until next spring, do it now.

"Between now and September 10 is the best time of year in Minnesota to seed or sod a lawn," according to Leon C. Snyder, director of the University of Minnesota Landscape Arboretum.

It's particularly favorable (spring is the next best time) because this is the time of year grasses seed in nature and most annual weeds don't sprout and grow after August 15. Grass seeded right now can establish a good root system before winter and continue its growth next spring--getting a head start on the weeds.

"Seed on a day that isn't windy," Snyder recommends. Seed should be raked in lightly, leaving about 10 percent of it showing. Then roll the seedbed lightly to firm the seed into the soil. Water lightly immediately and give the lawn a 10-20 minute watering two or three times daily. Never allow the seedbed to dry out. As seed sprouts and seedlings develop, water in greater quantities and at longer intervals until the grass is well developed. Then water once a week, applying about an inch of water at a time.

Grass facts:

- . sodding produces what Snyder calls "an instant lawn."
- . seeding is less expensive than sodding.
- . it takes 6-12 weeks to establish a healthy lawn from seed.
- . Snyder recommends sodding a hill area even if you are seeding the rest.

Snyder said information on soil preparation, grass types, establishing and fertilizing lawns is contained in Extension Bulletin 366, "The Home Lawn" by Donald B. White, professor, horticultural science. It is available free by writing 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  
August 30, 1971

To all counties  
ATT: Extension Home Economists  
Immediate release

WIGGLE, GROWTH  
ROOM NEEDED IN  
CHILDREN'S SHOES

Children's shoes should be fitted properly to allow for growth and wiggle room, cautions Athelene Scheid, clothing specialist at the University of Minnesota.

New styles, colors and materials naturally appeal most to children, but fit, comfort and durability should team with attractiveness in buying their shoes.

She suggests finding a sale, if possible, to buy better quality shoes at lower prices. "Don't buy just because they're on sale, be sure they fit correctly," she says. Children should go along to the store so that shoes can be properly fitted with the type of sock to be worn with them. As one parent put it, "I'm too poor to buy inexpensive and incorrectly."

Shoe authorities disagree on the amount of growth and wiggle room needed, but they agree the child's feet should be measured when standing up. Some experts think one-half inch space is enough to allow in the shoe beyond the tip of the longest toe to the tip of the shoe. Others want the reserve space three-quarters of an inch or even one full inch.

Children's shoes need to be able to endure plenty of mileage. Experts say a child walks about 10 miles a day. This helps explain why shoes wear out so quickly.

-more-

add 1--wriggle, growth room needed in children's shoes

Poorly fitted shoes can affect a child's walk, posture, body growth and can start the foot growing unnaturally, causing foot trouble that lasts a lifetime.

Tennis shoes and sneakers should fit properly, too. Sneakers should be washed and dried at medium temperatures to prevent shrinkage. It is just as important to keep checking the size of sneakers as any other shoe: they can be outgrown as fast as oxfords.

A good plan is to buy medium quality shoes, one pair at a time, so they can be worn out before they are outgrown, she recommends.

Extension Pamphlet 218, "Shoes for Children," is available free of charge by writing the Bulletin Room, University of Minnesota, St. Paul, Minn. 55101. It gives many more helps in determining shoe quality and hints on shoe care.

-mko-

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 30, 1971

To all counties

ATT: Extension Home Economists

Immediate release

REGISTRATION  
DEADLINE SET  
FOR ART WORKSHOPS

Friday, September 24, is the registration deadline for art workshop courses to be held at Willmar State Junior College and in downtown Willmar in conjunction with the 1971 Southwest/West Central Minnesota Art Exhibition.

Tuition and registration sheets must be mailed to arrive by that day at Continuing Education in Art, 316 Nolte Center, University of Minnesota, Minneapolis, Minn. 55455, said Huldah Curl, extension arts coordinator at the University. Further information can be obtained at \_\_\_\_\_ County Extension Office.

The one-credit, upper division course offered is Understanding Children's Art, taught by Jeanne Wiger, art instructor, Willmar State Junior College. It will be September 30, October 1 and 2. Total fee: \$20.

The following non-credit courses will be offered: Advanced Painting Workshop: Acrylics, taught by Robert Clark Nelson, St. Paul painter, September 29 and 30, tuition: \$15; Painting Criticism, taught by Robert Clark Nelson, October 1, tuition: \$7.50; Life Drawing, taught by Paul Kramer, St. Paul painter and teacher and director of the Minnesota State Fair Art Show, October 2, tuition: \$7.50; Designing Effective Publications, taught by Meg Torbert, former design curator at Walker Art Center and film maker at Minnimath Film Center, September 29 and 30, tuition: \$15.

Techniques in Poster Making, taught by Paul Jasmin, instructor, Minneapolis College of Art and Design, October 1 and 2, tuition: \$15; Photography for Amateurs, taught by Joseph Zimbrott, associate professor, Minneapolis College of Art and Design, September 30 and October 1, tuition: \$15.

September 11 and 12 are entry dates for amateur artists exhibiting art work in the Southwest/West Central Minnesota Art Exhibition to be held October 1, 2 and 3 at Willmar Municipal Auditorium.

## *Food for Better Health Program*



An Expanded Food  
and Nutrition Education Program  
in Home Economics Extension

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
August 30, 1971

To all counties

ATT: Extension Home Economists

Immediate release

### HINTS FOR HELPING CHILDREN EAT

There seems to come a time in every child's life when he doesn't want to eat.

Grace Brill, nutritionist, Agricultural Extension Service, University of Minnesota suggests: When you are sure he is not ill, consider the following suggestions for improving a child's eating:

\* It's better if you don't comment on what he eats or doesn't like. Let him watch other members of the family enjoy their food. Constantly nagging a child to eat puts a lot of importance on eating. He soon learns that he can get a parent "all shook up" by not eating.

\* Use raw vegetables or fruit for snacks. Give him a choice of two vegetables or fruits so he can make a decision. Many children enjoy raw vegetables more than cooked ones.

\* Understand that sometimes children dislike certain foods. The same applies to adults.

\* Don't let the child know that you're worried about his eating. If a child eats well, compliment him but don't make a big deal out of it. The less said about food the better.

-lsn-

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minn. 55101 Tel. 373-0710  
Sept. 2, 1971

Immediate release

\*\*\*\*\*  
\* For release Sun. a.m., Sept. 12 \*  
\*\*\*\*\*

## MINNESOTA AGENTS RECEIVE DISTINGUISHED SERVICE AWARDS

COLUMBUS, Ohio--Three Minnesota extension agents were honored for outstanding service when they received Distinguished Service Awards Saturday night (Sept. 11) during the annual meeting of the National Association of County Agricultural Agents held here Tuesday through Saturday.

The three Minnesotans are Donald S. Petman, International Falls, agricultural agent for Koochiching County; Raymond J. Newell, Marshall, agricultural agent for Lyon County, and Glen R. Chambers, Breckenridge, agricultural agent for Wilkin County.

Petman, who has been with the Minnesota Agricultural Extension Service since May 15, 1952, has done a great deal of work on community and resource development, commodity marketing problems and education programs.

One of the projects he assisted on involved the removal of junk cars from a community, razing dilapidated buildings and encouraging the improvement of existing buildings and lots. Petman also served as an advisor on the county's Land Use Planning Committee. Koochiching County was one of the first in Minnesota to approve a comprehensive land use plan and to adopt zoning regulations.

He works on marketing problems with dairy farmers, local dairy marketing organizations and beef producers. Recognizing the importance of tourism and forestry for Koochiching County's economy, Petman has developed educational programs for resort owners and persons in related businesses and has worked closely with industry on educational programs in the production, harvesting and marketing of timber products.

-more-

add 1--three extension agents honored

Newell, Lyon County agent for more than 16 years, administers one of the largest and most effective extension programs in southwestern Minnesota. Newell's success is largely due to the acceptance of responsibility by local leaders and involvement of many groups and individuals in planning programs.

He has participated in advanced study programs offered by the University of Minnesota, has attended summer school in 1960 and 1966 and received the 1963 Dow Award. Newell has served on a number of significant state extension program development committees and took a lead in working with the Southwest Branch Experiment Station at Lamberton, helping it to serve southwestern Minnesota agriculture.

He has been a leader in developing crops, soils and livestock programs in Lyon County. He has had an excellent working relationship with local community residents in providing a strong and effective program.

Chambers, who was appointed Wilkin County agent in 1957, is considered a community leader and is well accepted by rural and urban residents of Wilkin County. He has given leadership to a strong youth program and has placed special emphasis on training and developing junior leaders.

He works closely with commercial farmers in the area and has good working relationships with the agriculture and business communities. Under his leadership, there has been a very noticeable growth in the extension service's program in Wilkin County.

Chambers received a bachelor of science degree from North Dakota State University, Fargo, N.D., in 1952. He has enrolled in training programs and seminars and attended a summer extension session in 1965 in Colorado. He is an active member of the Minnesota County Agents' Association and the National Association of County Agricultural Agents.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 3, 1971

To all counties  
Immediate release

NITRATES IN FEED  
CAN POISON DAIRY CATTLE

Nitrates in feeds can poison dairy cattle and adversely affect production or cause death, says Michael Hutjens, an extension dairyman at the University of Minnesota.

Dairy cattle have been safely fed nitrates up to two percent of the dry matter intake without an effect on production. Fed at the three percent level, it has caused death, he says.

Small amounts of nitrates found in most plants may accumulate to lethal levels due to drought, frost, absence of sunlight, or conditions which reduce plant growth.

If a dairyman is suspicious of a feed, he should have it tested for nitrate level while limiting the amount fed to his animals, he says.

If you are suspicious of certain feeds, Hutjens offers these tips:

- \* Mix the questioned feed with safe feeds if possible.
- \* Gradually switch to the suspected feed to give the animal a chance to adapt.
- \* Do not add urea or non-protein nitrogen to the ration.
- \* Feed readily digested carbohydrates with the questioned feed for better utilization by microbes in the rumen.
- \* Watch for symptoms of nitrate poisoning such as unsteadiness, convulsions, shallow respiration and a weak pulse.
- \* Add additional amounts of vitamin A.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 3, 1971

To all counties  
Immediate release

PLANT PATHOLOGISTS  
TEST SWINE REACTION  
TO DISEASED CORN

University of Minnesota plant pathologists have found that diseased corn fed to young swine produces different effects, depending on the type of fungus in the corn.

When young swine were fed a ration of corn invaded by the fungus that causes southern corn leaf blight, there was no ill effect on the animals, according to the research of C. M. Christensen, C. J. Mirocha, G. H. Nelson and J. F. Quast.

But when pigs were fed a ration for 64 days containing the fusarium roseum fungus, all the females developed swollen vulvas and enlarged nipples and some developed a rectal disorder. These symptoms receded after the infected corn was excluded from the feed.

Testes of the males on the ration containing fusarium roseum infected corn were much lower in weight than those given sound corn, the scientists reported.

The fusarium roseum fungus causes kernel rot, stalk rot, seedling blight and pink ear rot in corn. These diseases occur in silage, destroying plant tissue.

# # # #

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 3, 1971

To all counties  
Immediate release

IN BRIEF. . . .

Rain Brings Household Insects. Fall rains may bring sowbugs, millipedes and centipedes into your home. University of Minnesota entomologists recommend that you remove leaf litter and decaying vegetation which provide food and shelter for sowbugs and millipedes. When watering, the soil near the house should be permitted to dry before repeated soakings. A five-percent chlordane dust or a three-percent chlordane emulsion applied outside along the foundation is recommended for chemical control.

\* \* \* \*

Corn Feeding Value Told. Research shows that when dairy cattle were fed on an equal dry matter basis high-moisture ensiled corn had feeding value for milk production equal to dry corn but not greater. For each pound of dry corn (15 percent) it takes 1.2 pounds of high-moisture corn (30 percent), Michael F. Hutjens, University of Minnesota extension dairyman, says. Iowa State University research shows that the feeding value of high-moisture corn was four to nine percent more than that of artificially dried corn.

\* \* \* \*

Increased Exposure Can Damage Trees. Opening up a woodlot by extensive tree removal exposes remaining trees to increased sunlight, heat, wind, and fluctuations in temperatures. Some trees such as oak may be injured or killed in the new abnormal environment, say University of Minnesota plant pathologists.

# # # #

## *Food for Better Health Program*



An Expanded Food  
and Nutrition Education Program  
in Home Economics Extension

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 3, 1971

To all counties

ATT: Extension Home Economists

Immediate release

### CLEAN HOUSE TAKES "ELBOW GREASE" (Part I)

If you are moving into a house that has been vacant for a time, probably you will want to give it extra cleaning and airing before you move, suggests Mary Frances Lamison, extension home management specialist. It is easier to do cleaning before your belongings arrive. Here are a few suggestions:

- \* Open all windows and doors during the day to air. If the basement seems damp this will help to dry it out.
- \* Vacuum ceilings and walls. Hot soapy water cleans washable walls, woodwork and storage shelves. If very dirty, add 1 cup ammonia to 1 gallon of water. Clean ceiling first, then wash walls and woodwork at the bottom and work up to prevent streaking.
- \* Scrub floors with hot sudsy water. Wood floors can be damaged if water stands on them. Wipe floors with a cloth wrung as dry as possible or a dry cloth.
- \* Scrub and sanitize bathroom and kitchen fixtures. Chlorine bleach added to cleaning water helps disinfect sink, tub and toilet. Test drains to be sure they are open.
- \* Check heating system before starting a fire. Be sure the chimney and flues are free of soot.
- \* Check for signs of mice and bugs. Set traps or use repellents.
- \* Don't forget to remove the trash from around the house and off porch and steps.

This all takes a lot of "elbow grease." Enlist the help of your entire family and don't overlook the offers of friends and relatives to help. Getting settled in a clean, fresh-smelling house is well worth the effort.

-1sn-

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 3, 1971

To all counties

ATT: Extension Home Economists

Immediate release

EAT YOUR  
SHARE OF PEARS  
WHILE PLENTIFUL

Be sure to eat your share of pears while they are among the September Plentiful Foods in Minnesota, urges Grace D. Brill, extension nutritionist at the University of Minnesota.

Besides eating them out-of-hand, she suggests making delectable salads. One idea is fresh pear slices surrounding fresh purple plum halves filled with cream cheese balls rolled in finely chopped peanuts. Crisp lettuce beneath and a dollop of sour cream on top, completes that picture.

The average pear contributes about 100 calories to the diet. This is a little more than an apple and about the same as a banana, she says.

Other foods dubbed September Plentiful Foods by the U. S. Department of Agriculture include the following: Potatoes, purple plums, split peas, broiler-fryer chickens, peanuts and peanut products and eggs.

A record crop of purple plums is anticipated from the Washington, Oregon and Idaho areas. Shipments are expected to be heavy the first half of September with ample supplies available the entire month.

Broiler chicken production is expected to be near the level of September 1970. Egg production is expected to exceed last September's.

The peanut harvest in the Southeast will be hitting full stride in September. With the emphasis on new higher yielding varieties, production is expected to be ahead of last year.

Carryover of dry peas from last year, plus the new 1971 supply will make split peas good buys, too.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 7, 1971

4-H NEWS

ALL COUNTIES

IMMEDIATE RELEASE

4-H'ERS TO ATTEND  
YOUTH FOR NATURAL  
BEAUTY CONFERENCE

\_\_\_\_\_, \_\_\_\_\_, will attend the Youth  
(name) (address)

For Natural Beauty Conference, September 20 to 22 at the Minnesota State Fair grounds.

\_\_\_\_\_ was selected to represent \_\_\_\_\_ County at the conference on  
(name)  
the basis of (his, her) outstanding work in the project. (He, She) will join  
55 other outstanding 4-H'ers from throughout Minnesota for three days of  
tours, films, discussions and sharing of ideas.

The youths will tour Northrup, King and Co. trial grounds; the University of Minnesota Arboretum, Excelsior; and the horticulture building and greenhouse on the St. Paul campus of the University of Minnesota. The 4-H'ers will attend an awards banquet on Wednesday night, September 22.

Approximately 300 clubs participated in the youth for natural beauty program this summer in Minnesota. Club activities included painting mail boxes, town halls and community buildings; making roadside parks; planting flowers in public areas; and cleaning up streets and roadsides in the community.

(Note: Use above sentence on club activities or include a paragraph on the activities of the clubs in your county.)

The program gives youth an opportunity to improve their community. They set their own improvement goals, organize their project and work with various community groups on their projects. "The youths gain a feeling of worth in the community and have an opportunity to become acquainted with various public and government officials," according to Wayne Carlson, assistant state leader of 4-H and youth development at the University of Minnesota.

The conference is sponsored by Northrup, King and Co., Minneapolis, and the Extension Service of the University of Minnesota.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 7, 1971

4-H NEWS  
ALL COUNTIES  
IMMEDIATE RELEASE

4-H'ERS TO COMPETE  
AT MARKET LIVESTOCK  
SHOW

\_\_\_\_\_ 4-H'ers from \_\_\_\_\_ County will compete with  
(Number) (Name)  
more than 600 other 4-H'ers at the 4-H Market Livestock Show, September 20 to 22  
at the State Fair grounds.

They are: (Give names, addresses and exhibit.)

\_\_\_\_\_ will compete in the livestock achievement contest. (He,  
(Name)  
She) will be judged on (his, her) knowledge and application of approved husbandry  
practices pertaining to the care, feeding and management of livestock. \_\_\_\_\_  
(Name)

was selected to represent \_\_\_\_\_ County on the basis of (his, her) out-  
(Name)  
standing growth and leadership in the \_\_\_\_\_ project.

The 4-H'ers will attend a livestock evaluation clinic on entry day, September  
20, and a fun night at the St. Paul campus student center where they can enjoy  
dancing, folk singers, bowling or billiards. They will also attend the recognition  
banquet on Tuesday, September 21, sponsored by the St. Paul Area Chamber of  
Commerce.

Swine and sheep judging will begin at 8:30 a.m., Tuesday, September 21, in  
the swine barn. Selection of grand champion lamb and barrow will be at 1:15 p.m.  
followed by the showmanship contests.

Beef judging will start at 8 a.m., Wednesday, September 22, in the Hippodrome.  
The showmanship contest will be held at 1:15 p.m. followed by the awards presen-  
tation and the selection of the grand champion steer.

add 1--4-H'ers to compete

The livestock exhibited at the show will be slaughtered and entered in a carcass contest. All exhibitors will receive carcass cut-out information on their animals, and cash awards will be given to the top rating exhibits.

The 4-H'ers will also compete for county herdsmanship honors at the Market Show which are judged on the neatness and cleanliness of the livestock exhibit.

The 4-H Market Livestock Show is sponsored by the Minnesota Livestock Breeders' Association in cooperation with the Minnesota Agricultural Extension Service. Prizes and premiums are awarded by business and industrial firms from throughout the state.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul 55101 Tel. 373-0710  
September 8, 1971

STATE FAIR SPECIAL

### STATE FAIR COOK AWARDED FOR 33 YEARS SERVICE

An honorary membership in the Minnesota 4-H Key Club and a citation for Meritorious Service to 4-H were presented Mrs. Edna Dallum, 69, Detroit Lakes, who has been a State Fair cook for 33 years.

Leonard Harkness, state 4-H leader, and Brent Larson, Minnesota 4-H Federation president, presented the plaque and key awards on Monday, September 6, at the fairgrounds cafeteria.

In this era of widespread nostalgia, Mrs. Dallum reminisces about the "good old days" when youngsters had healthy mealtime appetites and the not so good days when the cooks at the cafeteria broke 90 dozen eggs and scrambled them over a hot stove. Frozen eggs, turkey rolls and other quantity food products are used now.

Although she appreciates conveniences at 4-H camps and fairtime, Mrs. Dallum always "cooks from scratch" for her four children, eleven grandchildren and three great-grandchildren. She enjoys preparing the time-saving foods, but hopes many of the old recipes and skills will not be lost to future generations. Traditionally American, just plain foods, are still her favorites.

As a child, Mrs. Dallum remembers coming home to the aroma of baking, although it was an infrequent pleasure because her mother worked. It was then she decided to make baking a regular procedure in her own home. Living alone now, she bakes all her bread and rolls and likes to cook for company at her Floyd Lake summer cottage. She said she gets her satisfaction, not so much from praise, but from having people "just put their feet under the table and eat. You can tell if they enjoy the food by watching them eat--no need to pile on praise.

more

add 1--cook awarded

Her only daughter, Mrs. Jerome Leegard, Detroit Lakes, is the dessert cook at the fair, where her mother is in charge of the meat, potatoes and vegetables. A farmer's widow, Mrs. Dallum has led an active food preparation career. She served 18 years in the school lunch program at Detroit Lakes Senior High, retiring four years ago. She has cooked at the State Fair since the 4-H building was dedicated by Governor Harold Stassen in 1938, except during 1950-55 when she was a secretary in the Becker County Extension office. She still caters weddings and anniversaries and manages a 24-unit apartment house during the winter months. "State Fair is vacation with pay," exclaimed Mrs. Dallum.

The recent award will take its place beside the one she received years ago at Health and Conservation Camp. The 4-H'ers wanted to present an award so they used for birch twigs to frame the hand written award for faithful service. "It means pretty much even though I hardly dare dust the fragile item."

Her camping days in Becker County also bring back memories of pitching a tent and cooking on a wood burning stove. "During those early 4-H camps, the only way to check the oven temperature was to put your hand in the oven and estimate how hot it was. There were some blackened loaf sides, but most of the food was done to our liking."

During the depression 30's, 4-H members paid part of their camp fee in farm produce. After one camp she hitched a two-wheel trailer behind her car and sold bushels of excess potatoes to pay for the purchased food. "Everyone seemed to bring potatoes that year," she said. Around 1935, 4-H'ers brought their own straw to stuff mattress ticks, which served as their bedding, and frequently squirrels would run off with her stockings.

Mrs. Dallum is credited with procuring the old infirmary building for the Becker camp. "We really thought we had something when we graduated from tent to Legion Hall to infirmary building."

add 2--cook awarded

Some may be looking forward to air conditioned facilities or sound-proof sleeping quarters at the State Fair cafeteria, but she remembers the kitchen as half its present size with only one refrigerator instead of the two walk-in coolers and three freezers. Before the two stack ovens of today, they used to carry food to the first floor because of the oven shortage.

This year nearly 30,000 meals were served. Usually Mrs. Dallum rises at 4:00 a.m. to light the large ovens for scrambled eggs. With a day that lasts until 7:30 pm., there is not much time to see the fair. That is her one regret, and someday she will tour all of the displays. In the meantime she finds time to see the women's and flower exhibits during the two weeks she is at the fair.

Mrs. Dallum also cooks for Leadership Camp in June and State Fair Market Week. Mmes. Gwen Bacheller and Elaine Christensen co-manage the food service. "I don't know how to say enough good about Edna," said Mrs. Christiansen. "She is efficient, organized and never late with a meal." Mrs. Bacheller concurred that the tremendous partnership in the kitchen has enough good humor to carry through hot, muggy days.

Quantity recipes used at the fair include:

Oven Scrambled Eggs

1 gallon eggs  
1 quart milk  
2 T. salt

Place cup of bacon grease in bottom of baking pan. Add mixture and bake for 1 hour at 350 degrees. Stir occasionally.

Veal Cutlets

Dip cutlet in egg and water mixture, sprinkle with salt and pepper, roll in corn flake crumbs. Brown in oven and bake with mushroom soup at 350 degrees for 1 hour.

add 3--cook awarded

For those fishermans' wives, here is Mrs. Dallum's recipe for fixing her son's lake catch:

French Fried Fish Fillets

Wash and dry fillets and let them stand with a little salt in the refrigerator overnight. Beat an egg and add enough flour for a light batter. Dip the fillet in the egg mixture and then into corn flake crumbs. Deep fat fry 7 or 8 minutes.

# # #

165-jkm-71

Department of Information  
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University of Minnesota  
St. Paul 55101 Tel. 373-0710  
September 8, 1971

Immediate Release

## INSECTS RECYCLE LEAVES

One University of Minnesota entomologist has the answer to the problem of fall leaves and the metropolitan burning ban: Let insects eat the leaves before they fall.

"The leaves on our deciduous trees have already served their primary purpose for the tree. The insects not only reduce the tremendous bulk of leaves but also convert leaves to basic elements in digestion which are extruded and available for plant growth next year," said Phillip Harein.

Ironically, many people who advocate recycling are concerned about insects that are currently consuming leaves from our oaks, elms, black walnuts and willows.

"But insects such as caterpillars and the fall webworm are currently recycling leaves for us," he said.

"Whatever you do, don't be concerned about controlling broadleaf-eating insects now--let them eat," Harein said.

By the way, you might even invite your neighbor to collect a few insects for his broadleaf trees if you have an abundance of insects.

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166-bjc-71

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September 8, 1971

SPECIAL

## NUTRITION CONFERENCE SET FOR SEPT. 20

More than 200 persons, including researchers and feed industry representatives, are expected to attend the 32nd annual Minnesota Nutrition Conference Monday through Tuesday (Sept. 20-21) in the Holiday Inn Central, Minneapolis.

Feeds for livestock will be discussed at a symposium Monday morning. The symposium will highlight triticale, wheat, barley, oilseed meals, waste products as feed and enhancing forage values.

In the afternoon a symposium will feature measuring feed nutrients and values. Other topics include variability in nutrient content, amino acid analysis and measurement of availability, biological availability of Vitamin D and net energy evaluation.

Topics to be discussed Tuesday morning include the effect of mycotoxins - ochratoxins and aflatoxins, influence of bentonite in livestock rations and 25-HCC and milk fever. In the afternoon, papers will be presented on low protein and protein phase feeding for turkeys, swine nutrition, feedlot cattle and horse nutrition.

Conference sponsors include the American Feed Manufacturers Association, Northwest Feed Manufacturers Association, Northwest Agri-Dealers Association and University of Minnesota.

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daz-71

Department of Information  
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St. Paul, Minnesota 55101  
September 13, 1971

To all counties  
Immediate release

LIVESTOCK FARMERS  
COULD GAIN FROM  
LOWER GRAIN PRICES

A drop in feed grain prices in 1971-72 is expected to raise egg, turkey, beef and swine enterprise profits, but will hurt the wheat market, according to University of Minnesota agricultural economists.

Minnesota cash crop farmers may suffer reduced incomes while most livestock producers may improve their earnings in the year ahead, they added.

Feed grain prices for the 1971-72 marketing year will average lower than the 1970-71 year due to a 13 percent rise in feed grain supplies over last year's supply. Although domestic feed grain consumption and exports will be up from 1970-71, it will not be up enough to absorb the anticipated rise in feed grain supplies for 1971-72, the economists said.

The total corn supply for 1971-72, including crop carry over and minimal imports, will be about six billion bushels--18 percent more than the 1970-71 supply. Minnesota's 1971 corn crop was projected on Aug. 1 to be 24 percent above 1970. Barring any catastrophic changes through harvest, the corn supply in Minnesota and the entire nation is substantially above last year's, they added.

The large anticipated corn production likely will put much pressure on prices at harvest, probably driving the price below the government supported, Commodity Credit Corp. (CCC) rate. But a good utilization rate should lead to at least a normal seasonal price rise of 15 to 20 cents a bushel. An average corn price of about \$1.20 to \$1.25 a bushel on the Minneapolis market, is reasonable to expect for the season, the University economists said.

The 1971-72 oat supply, about 1,399 million bushels, will be essentially the same as last year's, but the barley supply will be down about 629 million bushels from 1970. Lower average feed barley prices are expected in the 1971-72 marketing year with the general increase in feed grain supplies.

add 1--livestock farmers

The increase in feed grain supplies is expected to result in less use of wheat for feed and a national average wheat price lower than last year's \$1.34 a bushel. High feed grain prices resulted in drawing 217 million bushels of wheat into feed last year, but in 1971-72 this is expected to drop to about 175 million bushels--a 15 to 20 percent decrease. However, wheat feeding could set a record by exceeding 140 million bushels from July to September of this year due to a shortage in feed grain and large cattle feedlot placements in the Southwest.

Lower feed prices should increase profit margins for beef producers, although feeder cattle and non-feed costs will be higher than last year. Beef demand will increase five to eight percent and supplies will be up only slightly, permitting feed cattle prices to average higher. Beef cow owners can expect prices for their feeder animals this fall to be \$2 or \$3 more than last year, the University economists said.

Profit prospects also appear good in 1972 for swine producers because of expected higher hog prices and much lower feed grain prices. Pork demand should be two to four percent more than a year earlier for the rest of 1971 due to population increases, higher incomes and reduced competition from red meats. With no change in supply, prices should be higher this fall assuming that each one-percent increase in demand will affect prices by about two percent. Barrow and gilt prices could rise to \$19-21 a hundred-weight in the first half of 1972. A year ago they averaged \$17.50 a hundred-weight. But if supplies are reduced two percent, the price could rise an added 50 cents a hundred weight.

Hog prices could improve in the second half of 1972 as compared to the same period in 1971 if producers reduce farrowings from 1971 levels. If the increase in farrowings remains below three percent, hog prices should remain good through most of 1972, the economists said.

A slight improvement in profit for egg and turkey producers is expected, primarily due to the projected lower feed costs. Egg supplies in 1972 will be slightly under the 1971 level and egg prices are expected to be about the same to slightly higher than the 1971 levels.

Prices this holiday season may run one cent a pound higher than last season for turkeys, but a three to four percent increase in 1972 over 1971 is expected in the turkey crop.

# # # #

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To all counties  
Immediate release

REDUCE SOYBEAN  
HARVEST LOSSES

Minimize your harvesting losses when combining soybeans this fall. It takes an average of only four beans per square foot to equal one bushel lost per acre, says Charles Cuykendall, University of Minnesota extension economist.

With soybeans priced at \$3 per bushel, each bean lost in a square foot would be worth 75 cents an acre. A strong soybean demand this spring will make it extra important to have that extra bean per square foot stored in the bin rather than lost on the ground.

The extra beans harvested are all profit since they've already incurred all costs of seed, fertilizer, sprays and machinery. The difference between 30 bushels and 27 bushels per acre after harvest nets out around \$9 per acre. Good operators will go after those extra beans, Cuykendall adds.

Jack True, University of Minnesota extension agricultural engineer, gives these tips to minimize harvest losses:

- \* Cut close to the ground to avoid cutting low pods.
- \* Limit ground speed to about 3 miles per hour.
- \* Adjust reel speed to prevent excessive shattering.
- \* If beans become excessively dry, harvest in early morning or late afternoon to reduce losses.
- \* Check losses periodically to see if further machine or management adjustments are needed.

# # # #

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September 13, 1971

To all counties  
Immediate release

PROFITS FROM SHEEP,  
LAMBS TO REMAIN GOOD

Profit prospects for sheep and lambs in 1972 look good for well managed ewe flocks and only fair for lamb feeding, according to University of Minnesota agricultural economist Kenneth Egertson.

The range on choice lambs at major Minnesota markets is expected to remain from \$27 to \$29 per hundredweight into fall and early winter. Demand is expected to remain strong and supplies could run moderately below year ago levels, he said.

Feeder lamb prices will average slightly above last fall. Fed lamb prices during the first half of 1972 should remain good and average above the levels established in 1971.

Demand for feeders will probably be about the same as a year ago. Feeding returns of a year ago will cause some weakness. However, this should be more than offset by lower feed prices and expectations for strong fed lamb prices into the winter of 1972.

Relatively favorable slaughter lamb prices reduced the supply of lambs available for placement this fall and plentiful supplies of feed grains will likely be reflected in some strength in feeder lamb prices this fall and into the winter months.

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September 13, 1971

To all counties  
Immediate release

SOYBEAN PRICES  
SHOULD INCREASE,  
ECONOMISTS SAY

Soybean prices in 1971-1972 are expected to climb--perhaps as much as 22 cents above the July Minneapolis average of \$3.28, according to agricultural economists, Charles Cuykendall and Willis Anthony.

Despite record production this year, expected demand and use of soybeans is high enough so that the carryover of soybeans to 1972 is likely to be reduced from 230 million bushels to 100 million bushels, they said.

In 1971-1972, soybean supplies will be short and will be rationed by market prices.

It is too early to assess how the government's price freeze will affect soybean prices, they said. Currently, the frozen prices on processed feeds places an "upper limit" on prices. However, prices for both soybean oil and meal are now below the 90-day ceilings.

Soybean supply for 1971 is expected to be 100 million bushels carried over from 1970 plus 1,200 million bushels produced in 1971 for a total of 1,300 million bushels. About 1,240 million bushels are expected to be used in crushings, exports, and seed and feed in 1971 leaving a carryover to 1972 of around 60 million bushels.

Precise price projections are now uncertain, the economists said. For the coming year, soybean prices will be strongly affected by: the final 1971 crop; exports; the impact of new U. S. economic policy; and 1972 soybean crop prospects.

Since any of these factors could sharply influence price, sellers and buyers should continue to keep informed, they said.

# # # #

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September 13, 1971

To all counties  
Immediate release

RECORD 1972 FARM  
INCOME PREDICTED

U. S. farmers can expect a sharp increase in agricultural income in the year ahead. On a per farm basis, income could be a record high, University of Minnesota agricultural economist Paul Hasbargen predicts.

"For both livestock and crops receipts will be up sharply from a year ago. Expenses will be up, but inflation will be at a lower rate so expenses will not be up as much as receipts," he said.

For Minnesota farmers, the increase may not be quite as sharp, since crop losses from corn blight last year were not significant in the state and incomes were already at a record high.

Cash corn producers may suffer a decline in income because of lower corn prices. However, livestock, dairy and poultry sales and prices will be up. Average per farm earnings in this sector may set a new record, Hasbargen said.

Hasbargen's prediction is based on expected record production in 1972 and the beneficial effect to agriculture that President Nixon's new economy policies are expected to have.

"If the policy is successful and economic activity is increased next year, we think a real increase in GNP of four or five percent is possible at the same time that the inflation is slowed down," he said.

Domestic demand will be improved if the economy is strengthened as a result of the new policy and other fiscal policies currently being debated such as tax relief for consumers.

"These incentives for consumer spending are important because the consumer holds the real key for economic recovery in the year ahead. If the consumer loosens up his purse strings, this will be very helpful."

add 1--record 1972 farm

Increased foreign demand for U. S. agricultural products should result if Nixon's new program forces foreign governments to increase the value of their currencies relative to ours.

"This to date looks successful. The Japanese yen has been allowed to 'float' and its value has increased about six percent relative to the dollar. This means the yen can buy more soybeans or more corn than it could before and this is going to increase the demand for agricultural products," Hasbargen explained.

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September 13, 1971

4-H NEWS

TO ALL COUNTIES

IMMEDIATE RELEASE

FALL TRAIL RIDING  
CAN BE FUN

Looking for a weekend sport that's fun and different? How about trail riding? Many 4-H'ers lose interest in their horse project after the county and state fairs are over thus missing many hours of riding fun. "Trail riding gives the horse owner a chance to enjoy crisp fall weather, beautiful scenery and the friendship of other horse lovers," says R. M. Jordan, extension animal husbandman at the University of Minnesota.

Unfortunately, though, trail riding in Minnesota isn't a popular sport. "According to a survey, two out of three people prefer riding by themselves, 31% like to ride with friends and about 3% prefer trail rides," Jordan said.

One of the main reasons that trail riding isn't popular in Minnesota is the shortage of good trails. 4-H'ers could develop trails as a county-wide or community project. When selecting a trail make sure the area will be safe for riding. Well-traveled areas should be avoided and check the route for wire and holes.

A good distance is one that can be negotiated by the poorest mount in six hours. Yet the trail must be interesting and challenging and provide the opportunity to vary the speed. Plan the trail so the horses walk 7-10 minutes, jog 3-4 minutes, lope 2 minutes and repeat with a ten minute rest each hour.

Every trail should have a noon or over-night stop with toilets and a solid place to tie the horses. Always be sure you talk to the owner of the land when your trail crosses private property.

-more-

add 1--fall trail riding

After your trail and rest area are complete select people for trail boss, flagman, road guard, first aid man, and wrangler. Make sure that all participants of the ride will obey the trail boss since mutiny can result in accidents. All riders should have sturdy equipment such as a halter, 10-foot lead rope, hoof pick, a slicker and fly spray. For a long ride bring a pack horse with supplies everyone can use so you don't overload the horses being ridden.

Don't expect to tackle a thirty-mile trail ride in one day. You must condition both the horse and yourself before participating on a long ride. Try to develop a sense of timing and distance so neither you nor your horse becomes overly tired. There are several ways of checking your horse's fatigue. Normal pulse rate is 30 to 40 beats per minute, normal temperature is around 101° F and normal respiration is 10 and 20 breaths per minute.

A horse that shies at everything along the trail isn't any fun to ride and can be a real hazard for the other riders. Work your horse in new areas and let him look at things that frighten him. Calm your horse when he's frightened and he'll soon learn to trust you when riding in new places. Well chosen and trained horses and congenial people are the basic essentials. With those as starters, plus some planning your trail ride is bound to be successful.

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September 13, 1971

To all counties  
Immediate release

IN BRIEF. . . .

Management of 1971 Corn Crop. Early harvest before corn floods the market will pay extra cents per bushel. Corn is discounted heavier when facilities are plugged and railroad cars are scarce, according to Charles Cuykendall, University of Minnesota agricultural economist. Also, earlier harvesting reduces chance of lodging and loss due to corn borer and leaf blight.

Finalize your drying and storage commitments, Cuykendall urges. The record crop will put more pressure on the limited drying and storage facilities. Many farmers will have more corn than storage facilities this year. In many cases it will pay to dry corn before sale. It's more profitable to dry corn at low prices and fixed moisture discounts than when prices are higher, Cuykendall adds.

\* \* \* \*

Urea is Popular Nitrogen Fertilizer. Chief reasons for urea's gain in popularity as a fertilizer are a decrease in price over the past decade and its compatibility with other fertilizer in handling and storage. Urea is 45 percent nitrogen and has the highest analysis of solid nitrogen forms, according to Curtis Overdahl, University of Minnesota extension soils specialist.

If urea is applied late in fall when soils are cool, very little will convert to the nitrate form until next spring. It's versatile like other nitrogen fertilizers and can be applied in the fall, spring or early summer on medium to fine textured soils. Urea also may be blended or stored, Overdahl adds.

\* \* \* \*

Topdress Alfalfa. Topdress established alfalfa stands as soon as possible this fall. Research shows that extra topdressing will profitably increase yields and reduce winter kill, even when the soils have been well fertilized at seeding time. On eastern Minnesota soils, alfalfa which received high amounts of potash at seeding time often showed yield increases of over a ton per acre when topdressed with about 300 pounds of 0-0-60 two years after seeding. And in western Minnesota, phosphate topdressing on alfalfa has constantly increased yields on most fields, according to Curtis Overdahl, University of Minnesota extension soils specialist.

# # # #

## *Food for Better Health Program*



An Expanded Food  
and Nutrition Education Program  
in Home Economics Extension

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 13, 1971

To all counties

ATT: Extension Home Economists

Immediate release

### CLEAN HOUSE TAKES "ELBOW GREASE" (PART II)

If you are moving into a house that has been vacant for a time, probably you will want to give it extra cleaning and airing before you move, suggests Mary Frances Lamison, extension home management specialist. It's easier to do cleaning before your belongings arrive.

There may be draperies, curtains, carpeting and household appliances which are included in the rent or cost of the house. Here are a few suggestions for checking these items:

\* Dirty draperies can be taken to a coin-operated dry cleaning plant. If they are heavy and lined, it is worth it. It may be economical to have them pressed there too. Some are washable, but many times if there are pleats at the top they do not wash well.

\* Many types of curtains are washable. Look for a label. If you can't find one, try washing a single one, or maybe a short one on the door if it's made of the same material. Always use a mild detergent and a cool iron if you aren't sure of the fabric.

\* Dirty carpeting and rugs may not respond to hand cleaning. They may need a commercial type shampoo cleaner. These can be rented at many hardware stores. The cost is usually by the day and is well worth it. Before shampooing them yourself, try cleaning a corner or an area behind a door.

-more-

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St. Paul 55101 Tel. 373-0710  
September 28, 1971

Immediate Release

## LINCOLN CO. AND AREA EXTENSION HOME ECONOMIST HONORED

Distinguished Service Awards were presented to Mrs. Jeanette Hauschild, extension home economist in Lincoln county, and Mrs. Irene Peterson, Northwest area extension agent, at the annual meeting of the National Association of Extension Home Economists in Miami, Sept. 28-Oct. 1.

During the Friday morning recognition breakfast at the Atlantic Hotel, certificates and pins were presented to the two Minnesota home economists as recognition of their contributions to extension programs and their professions during 14 years of service.

Mrs. Hauschild, Hendricks, is active in working with the needs of rural people. She cooperates with schools, other agencies and organizations in presenting family life and public affairs programs.

Mrs. Peterson, Wadena, serves as supervisor of the Expanded Food and Nutrition program for five counties. Prior to training nutrition program assistants, she worked with a special senior citizen project.

Twenty-five Minnesota colleagues were present in Florida for the conference on "Our Role as Educational Facilitators."

Several home economists are participating in the conference program. Mrs. Sharon Gilsrud, Blue Earth county, is secretary of the regions meeting and on the hospitality committee. Elizabeth Russell, Chippewa county, serves on professional improvement committee, while Mrs. Shirley Blake, Ramsey county, works on the para-professional committee. Mrs. Audrey Tolzmann, Nicollet county, is vice-chairman of state president's meeting.

###

178-jkm

add 1--dutch elm disease

"The degree of protection achieved by benomyl soil treatments, although consistent in three seasons of treatment, was not as high as might have been hoped for in a chemical for use in the practical control of Dutch elm disease," he said.

The scientists also found that if the disease had a "foothold" in an individual tree, benomyl was ineffective.

Smalley emphasized that any treatment with benomyl could not be effective without a good control program to contain and prevent Dutch elm disease. A good control program would include bark beetle population control and root graft control as well as general tree maintenance, he said.

# # # #

177-bjc-71

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September 28, 1971

Immediate Release

At Minnesota Conference:

#### NEW DUTCH ELM DISEASE PREVENTATIVE LOOKS PROMISING

The wonder cure for Dutch elm disease hasn't been discovered yet, but scientists at the University of Wisconsin think they may be on the right track with a fungicide called benomyl.

"Benomyl is the first fungicide with the capability of producing practical protection of American elms from Dutch elm disease," according to a University of Wisconsin plant pathologist, Eugene Smalley. He presented the results of Wisconsin experiments at the Shade Tree Maintenance Conference at the University of Minnesota's St. Paul Campus last week.

Benomyl is one of a family of systemic fungicides which are absorbed by the plant, giving it various amounts of protection against fungus. The chemical is not yet registered or approved for use.

The high rate of benomyl soil treatment needed now--more than 200 pounds per acre--would seem to limit the usefulness of it as a treatment to certain high value American elm trees, Smalley said.

Other methods of application such as foliar sprays and tree injections might prove to be more useful with further studies, he said.

In the most recent trials of the fungicide in municipalities, 60 percent of the treated trees remained healthy, while only 33 percent of the untreated group of trees remained healthy.

add 1--tractor safety

That is the average cost of a crush-proof cab, about 10 to 15 percent of the cost of a new tractor, Hanson said. About 20 manufacturers market tractor cabs in Minnesota--most of them crush proof.

The question remains: What can be done to reduce needless deaths from farm tractor accidents in Minnesota?

According to one University of Minnesota agricultural engineer, John True, "Safety should be built into a cab. Farmers definitely should look for a roll-proof cab," he said.

The safety information and protective equipment is available to farm people in the state, Hanson said. It is a matter of getting them to use it.

Some countries have laws requiring tractor roll bars, but some farmers here say that roll bars can't be used on orchard tractors and in other places. Other farmers on flat land say that roll bars are unneeded. Nevertheless, accidents with tractors happen everywhere in the state, Hanson said.

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September 28, 1971

Immediate Release

UM Safety Expert Says:

### \$200 TRACTOR ROLL BARS COULD PREVENT MANY FARM DEATHS

A recent newspaper story reported a Grand Meadow, Minn., farmer killed when the tractor he was operating rolled over, pinning him underneath.

For scores of Minnesota farmers this year the obituary will be about the same: death caused from tractor roll over. Only the names, places, times and circumstances will be changed.

It is ridiculous to allow such a cost in lives--an average of 50 each year in Minnesota alone--and money to go on when in most cases, \$200 invested in a roll bar and seat belt could prevent most of them, said University of Minnesota extension safety coordinator, Wayne Hanson.

In stating the case, he cites a national safety council study which shows that 90 percent of deaths from tractor roll overs could be prevented by a roll bar and seat belt or a crush-proof cab. For Minnesota that could mean an average of 45 fewer deaths from farm accidents each year.

But the situation becomes complicated by the array of cab equipment offered to Minnesota farmers for protection from inclement weather.

For example, a Minnesota manufacturer of tractor cabs offers one for the popular 4020 John Deere tractor for only \$739. It is not crush proof. If a farmer wants a crush-proof cab for the 4020 John Deere purchased in the state, it will cost him nearly twice that much--\$1300.

add 1--in brief

Lime Needs Time to Act. Don't wait until your new seeding is planted next spring before applying lime on alfalfa fields. Curtis Overdahl, soils specialist at the University of Minnesota, says spring surface applications won't benefit the immediate crop. Overdahl says changing an acid soil to one neutral enough for alfalfa takes at least six months, even when lime is well mixed with surface soil.

\* \* \* \*

Compensate for Roots Lost In Transplanting. Transplant injury is a major cause of tree loss. To compensate for the roots lost during digging of broad-leaved trees, a proportional amount of the top must be removed.

Nurserymen use root pruning to train tree roots to form more compact masses so that a greater percentage of roots can be taken up when trees, especially evergreens, are transplanted.

\* \* \* \*

Soil Oxygen Deficit Can Injure Trees. An oxygen deficit in the root zone interferes with normal tree life processes and often causes dieback of branches. When oxygen deficit occurs, trees may not show symptoms for two or three years, says University of Minnesota extension plant pathologist Ward C. Stienstra.

The following conditions can cause root zone oxygen deficit: extensive flooding or soil fill on top of existing soil, frequent use of paths that compact soil around tree, sidewalks, driveways and streets near trees.

# # # #

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September 27, 1971

To all counties  
Immediate release

IN BRIEF. . . .

Minnesota May Owe You \$48.71. Were you self-employed for any of the years from 1967 through 1970? If so, you were not allowed to reduce your Minnesota gross income by the federal income taxes paid during those years. But a recent court ruling has changed all that, according to Erlin Weness and Harvey Bjerke, area extension farm management agents.

It is now possible to file Form M-500 to claim a refund. The maximum amount for 1967 is \$48.71. For that year you must file your amended claim by October 15. Later claims need not be filed so quickly. To get this maximum amount for 1967, you would have had to be in the 12 percent State tax bracket and have paid the maximum self-employment tax of \$405.90 when filing your 1966 federal income tax return.

\* \* \* \*

Green Sorghum May Poison Cattle. Green sorghum plants may have enough prussic acid to poison cattle. Prussic acid content is apt to be highest when plants are young and growth is stopped by frost, drought or other injury, says Mike Hutjens, University of Minnesota extension dairyman. Keep these points in mind if you suspect your sorghum crop:

- Thoroughly dry the crop as hay, or put it in the silo.
- Harvest the crop when it's approaching maturity, if possible.
- Feed hay or silage before feeding or pasturing the suspected feed. If the toxic material is consumed at a slower rate, animal tissues can detoxify it, Hutjens says.

- And, do not pasture regrowth when it's young.

Symptoms of prussic acid poisoning include rapid breathing, staggering, excitement, paralysis and convulsions. Death occurs rapidly, so call your veterinarian promptly if you notice any symptoms.

\* \* \* \*

-more-

## *Food for Better Health Program*



An Expanded Food  
and Nutrition Education Program  
in Home Economics Extension

Department of Information  
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Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 27, 1971

To all counties

Immediate release

### POTATO POINTERS

If you've stopped eating potatoes, or are eating fewer than you used to, you're like many others who think that potatoes are fattening.

Mary Darling, nutritionist with the Agricultural Extension Service of the University of Minnesota, says it is true that potatoes contain more calories than most vegetables, but they are considerably lower in calories than many other foods you eat. One baked potato has fewer calories than the same amount of avocado, lima beans, bran flakes, prunes, rice or sweet potatoes.

Potatoes prepared without butter or cooking oil or served without gravy have fewer calories than most fruits canned in heavy syrup.

It may be surprising to learn that potatoes are 80 percent water and only 20 percent starch. It is the starch in them that makes people think they are fattening.

Potatoes contribute many vitamins and minerals to your meals. One baked potato will provide over one-third of an adult's recommended intake of vitamin C for one day. Thiamin, riboflavin, niacin, pantothenic acid, and B<sub>6</sub> are the B vitamins included when you eat a potato. And the trace minerals found in a potato include iron, potassium, manganese, copper, zinc, and molybdenum. All of these nutrients help maintain healthy body tissues and functions.

And, lucky for us, the ways to prepare potatoes are endless. Take your pick for dinner today: baked, roasted, boiled, mashed, riced, browned, cooked in their jackets, or in salads, stews and soups--just to mention a few!

-lsn-

add 1--consider all factors

And, of course, most stores fit somewhere between the low-price and high prestige categories. They offer name as well as private store brands. The produce is good quality but still requires the sharp eye of a discernible shopper.

Shoppers should study food stores to determine the level of quality and prices available. At times they might shop lower or higher quality stores for comparison. Other facts influencing the choice of store are:

Trading stamps: A wise expenditure of money for food offers potential savings far greater than trading stamps. Stamps are worth saving if offered by the store that shoppers otherwise prefer because of general price, quality and service. But stamps alone should not influence either shopping decisions or choice of store.

Location of store: Whether or not it pays to pass the nearest food store for one less conveniently located varies by individual situation. Time and energy, whether shopping is recreation or simply necessity and types of food stores available may influence the decision of where to shop. Parking, bus service and store deliveries are also to be considered.

Shopping hours and store traffic: The impatient shopper avoid check-out bottlenecks by surveying stores to determine when they are quietest. Since community living patterns differ, in one area leisurely marketing may be in the morning, in others, mid-afternoon, evening or with expanded hours, late evening and Sundays. Once shoppers have selected a store, a shopping list according to the store layout will save time.

Store personnel: The personnel's friendliness and willingness to help is an important factor for some shoppers, as is a management that is sensitive to shopper suggestions and complaints.

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St. Paul, Minnesota 55101  
September 27, 1971

To all counties

ATT: Extension Home  
Economists

For immediate release

**CONSIDER ALL FACTORS  
WHEN SHOPPING**

In today's term, many call them "Super Stores." Groceries and supermarkets appear to be all knowing, all servicing, certainly they are all competing. And as important as knowing how to buy food, is the choice of store where the shopper buys.

Shoppers should select a store or stores that offer the general type of merchandise they desire, says Mrs. Edna Jordahl, extension home management specialist, University of Minnesota. Retailers often promote price, quality or fashion to attract and serve their specific clientele.

A retailer who seeks to create a low-price image advertises the bargain theme for his store. He may use mass, jumbled displays to give merchandise a bargain look. Items at the end of the aisle or on tables in the middle of the aisle are part of the bargain technique. Lesser known store and national brands may be a frequent feature and specials may sell at or below wholesale prices. Services are minimal. While low-price stores carry serviceable food, shoppers must be aware of quality and decide if the merchandise matches personal needs and preferences.

In contrast to the low-price store, the higher quality store usually advertises fewer products and emphasizes brand names and top grades. Shopping the quality store also requires special skills. Since it does not carry lower grades of food, the purchase of second or third grades for thrift is not possible. Too, shoppers may tend to overbuy because of the great appeal of many items. But since the ability to recognize quality is of lessened concern, shoppers need not discriminate among items.

Department of Information  
and Agricultural Journalism  
Institute of Agriculture  
University of Minnesota  
St. Paul, Minnesota 55101  
September 27, 1971

4-H News  
All counties  
Immediate release

MANY OPPORTUNITIES  
IN 4-H FOOD  
PRESERVATION

Fall is here along with the threat of freezing weather ruining the last fruits and vegetables of the season before your family can eat them.

4-H'ers through Minnesota are outsmarting Mother Nature by canning and freezing the surplus fruits and vegetables that can't be eaten this fall. Apples, squash and tomatoe juice can be either canned or frozen; late strawberries and raspberries can be frozen or made into delicious jam and jellies; and fall plums and grapes make tasty jelly.

If you haven't tried the art of food preservation because you think it's too much work, you may be surprised. The 4-H food preservation project can show you how to use modern techniques to prepare jams, jellies and pickles like Grandma used to make and achieve the same, old-fashioned taste. And with the convenience of the home freezer, many food preservation headaches are eliminated.

Many 4-H'ers have year-round enjoyment from their favorite fruits and vegetables because they've canned or frozen them themselves. Homemade preserves and relishes add color and excitement to family meals that are often prepared by the 4-H'ers.

Some 4-H'ers set up a home freezing plan that will provide a varied and well-balanced diet for their family the year 'round. They develop a plan that budgets space for their family's favorite foods, stored in amounts that can be consumed within the recommended storage period.

As 4-H'ers develop food preservation skills, they are able to tell which canning method is best for preserving each fruit, vegetable and meat. The 4-H'ers also put science to work by discovering why food preservation processes work as the 4-H'ers learn how to make them work.

add 1--fall is time

If ammonia is applied before plowing, inject ammonia two inches below the intended plow layer for shallow plowing (4-6 inches).

For deep plowing (8 to 10 inches), inject the ammonia a couple of inches above the planned plowing depth, and wait about a week before plowing. If you plow at the same depth at which the nitrogen was applied, the injection area may be opened long enough to cause losses.

Use your judgment when deciding whether to apply nitrogen after plowing, Overdahl says. Remember that ammonia must have a good seal to prevent direct losses to the air. Injecting ammonia 6 to 8 inches deep will usually insure a good seal.

Direct nitrogen losses--without biological or chemical action--result from improper application. Injecting ammonia when soils are either too wet or too dry to form a sufficient seal will cause losses. Injecting ammonia too shallow will also cause losses. Aqua ammonia requires only shallow coverage, but anhydrous ammonia should be injected 6 or 8 inches.

# # # #

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St. Paul, Minnesota 55101  
September 27, 1971

To all counties

Immediate release

**FALL IS TIME  
FOR APPLICATION  
OF NITROGEN**

Help prevent fertilizer losses and ground water contamination with excessive nitrates due to leaching by applying nitrogen fertilizer in late fall after corn or soybean harvesting.

Curtis J. Overdahl, University of Minnesota extension soils specialist, says recommended management practices should be followed for nitrogen fertilizer applications. Farmers need not be concerned with fall application and special practices for phosphorus, potassium and other nutrients.

Cool temperatures in fall and April restrict activity of soil organisms which convert nitrogen to the nitrate form that is most apt to be lost due to leaching, which is the downward percolation of water.

Heavy rainfall within a day or two after nitrogen is applied to the surface of warm soils can cause severe nitrogen loss, but little nitrogen should be lost if it's injected. The greatest nitrogen losses occur on fine textured, heavy soils such as Nicollet silty clay loams and Fargo clay loam soils. Nitrogen losses to the air are much less on loams or loamy sands.

Late September soil temperatures usually are low enough for ammonia application. Where rainfall is usually low, as in extreme western Minnesota, soil temperature is not as important. A rough guide for desirable soil temperature is 50 degrees Fahrenheit at a four-inch depth.

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September 27, 1971

To all counties  
Immediate release

NEW GRAIN SHOWS  
PROMISE AS FEED  
FOR LIVESTOCK

Triticale--a cross between wheat or durum and rye--shows promise as another feed grain, according to a North Dakota State University scientist.

However, problems of sterility and subsequent ergotism will have to be solved before it can become a major feed grain in the upper Midwest, Animal Scientist William Dinusson said last week (Sept. 20) at the thirty-second Minnesota Nutrition Conference in Minneapolis.

Ergot is a fungus which replaces some grains in seed heads. When eaten by cattle, ergot reduces gains and feed intake. Ergot also increases water intake, urination, heat stress and causes other adverse symptoms, Dinusson said.

Feeding tests showed triticale to produce about the same gains per unit of feed as barley.

Until ergot-free triticale is available, true evaluation will not be possible, he said.

A booklet containing all presentations given by researchers at the conference can be obtained by sending a request and \$4 to the Office of Special Programs, University of Minnesota, St. Paul 55101.

# # # #

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To all counties  
Immediate release

NEW TREATMENTS  
IMPROVE FORAGE

A chemical treatment which would enable farmers to feed low quality forages such as corn cobs, straw, and corn stalks, "appears to have practical implications" now, according to a University of Nebraska scientist.

The chemical treatment involves treating finely ground roughage with sodium hydroxide and adding water, Animal Scientist Terry Klopfenstein said last week (Sept. 20) at the thirty-second Minnesota Nutrition Conference held in Minneapolis.

In tests, the chemical treatment increased the digestibility of corn cobs 12 to 22 percent and more than doubled nitrogen retention. Digestibility of alfalfa stems was increased by 10 to 12 percent.

Gains for steers fed chemically treated corn cobs were 1.61 pounds per day compared to .66 pounds per day for the steers fed untreated corn cobs. Seven and one-half pounds of treated corn cobs were required per pound of animal gain as compared with 14.3 pounds of untreated corn cobs. Other treated forages did not produce gains that high.

A second procedure--the high pressure and temperature treatment of forages--potentially has application in a large central treatment plant, Klopfenstein said. With treatment of large quantities, the treatment cost can probably be held within a practical range, he said.

Chemical treatments applied under a pressure of 250 pounds per square inch increased digestibility of corn cobs by about 30 percent.

A booklet containing all presentations given by researchers at the conference can be obtained by sending a request and \$4 to the Office of Special Programs, University of Minnesota, St. Paul 55101.

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St. Paul, Minnesota 55101  
September 27, 1971

To all counties

Immediate release

UM SCIENTIST:  
NEW DRUG MAY  
CURB MILK FEVER

A new drug looks promising as a possible preventative of milk fever in dairy cows.

The initial results indicate that Holstein cows given 25-Hydroxycholecalciferol (25-HCC) orally shortly before calving had fewer cases of milk fever, according to University of Minnesota Extension Dairy Nutritionist Michael Hutjens. He reported the findings last week (Sept. 20) at the thirty-second Minnesota Nutrition Conference in Minneapolis.

When Jersey cows in a dairy herd known to have a high incidence of milk fever were treated with the drug, the incidence of milk fever was reduced by nearly one-half, Hutjens said.

The use of 25-HCC shows some promise in the treatment of milk fever. Six out of eight cows treated for milk fever with the drug recovered within three to twenty-four hours after injection.

The problem of soft tissue calcification associated with massive doses of vitamin D for treatment of milk fever was not observed with the 25-HCC treatments.

The cost per treatment is projected to be competitive with the cost of calcium borogluconate treatments, he said. In addition, 25-HCC treatment appears to be safer for the cow than the calcium borogluconate.

More research concerning timing, dosage number and levels must be completed before 25-HCC can be made available for farm application, he said.

Hutjens estimated that it would be at least a year before 25-HCC might be cleared by the Food and Drug Administration and made available to dairy farmers.

A booklet containing all presentations given by researchers at the conference can be obtained by sending a request and \$4 to the Office of Special Programs, University of Minnesota, St. Paul 55101.

# # # #

add 1--clean house takes "elbow grease"

\* Stove and refrigerator should be scrubbed with hot sudsy water to which baking soda has been added to remove odors. Rinse with clear water and wipe dry. Any removable parts should be taken out, washed and rinsed too. Leave refrigerator and oven doors open to air.

\* Loosen the grill on the kitchen ventilating fan and scrub all parts to remove the accumulation of grease. Add ammonia to your cleaning water for easier grease removal. Many fires start in the fan as it is easily overlooked and soon becomes dangerous.

This all takes a lot of "elbow grease." Enlist the help of your entire family and don't overlook the offers of friends and relatives to help. Getting settled in a clean, fresh-smelling house is well worth the effort.

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St. Paul 55101 Tel. 373-0710  
September 16, 1971

Immediate Release

## STATE 4-H MARKET LIVESTOCK SHOW SET FOR SEPT. 20-22

More than 600 4-H'ers from throughout Minnesota are preparing to compete in the State 4-H Market Livestock Show at the Minnesota State Fairgrounds Monday through Wednesday (Sept. 20-22).

Club members who qualified with their livestock by placing in county shows will participate in the show. Both live judging and carcass judging are on the agenda.

Judging of sheep and swine is scheduled for Tuesday (Sept. 21) starting at 8:30 a.m. in the swine barn. Selection of grand champion lamb and barrow will be at 1:15 p.m. followed by the showmanship contests.

Beef judging will start at 8 a.m., Wednesday, (Sept. 22) in the Hippodrome. The showmanship contest will be held at 1:15 p.m. followed by the awards presentation and the selection of the grand champion steer.

The livestock exhibited at the show will be slaughtered and entered in a carcass contest. All exhibitors will receive carcass cut-out information on their animals, and cash awards will be given to the top rating exhibits.

The 4-H'ers will also compete for county herdsmanship honors which are based on the neatness and cleanliness of the livestock exhibit.

The 4-H Market Livestock Show is sponsored by the Minnesota Livestock Breeders' Association in cooperation with the Minnesota Agricultural Extension Service. Prizes and premiums are awarded by business and industrial firms from throughout the state.

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172-bjc-71

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September 16, 1971

Immediate Release

UM Economist:

USE PUBLIC CORPORATIONS TO REGULATE ENVIRONMENT

HUDSON Wisc. --Public corporations should be established by society to regulate the use of unappropriated space, such as the Mississippi River, a University of Minnesota agricultural economist said Thursday (Sept. 16) at a meeting here.

Willard W. Cochrane made the remark at a forum at Camp St. Croix for administrators and selected faculty members of the University's Institute of Agriculture to discuss the institute's position on environmental issues in future years.

Society in some instances should charge individuals for using unappropriated, valuable space, such as streams, rivers, lakes, the atmosphere, oceans and ground water, he said. Charging enterprises to dispose of wastes in such spaces would force them to economize in the use of this space and would reduce pollution effects, Cochrane added.

Under this plan, car owners might be taxed by "The Atmosphere Authority of the USA" by the volume and quality of exhaust emissions. Manufacturing firms might be charged a fixed rate per gallon or pound for the wastes they dispose into the Mississippi River.

A "Small Watershed Authority" might charge farmers a runoff rate per acre depending on the fertilizer application rate and method, the cropping system used and the tilled land's average slope, the economist said.

add 1--regulate environment

Agricultural researchers can no longer assume that least-cost production is the "one dominant over-riding goal in agriculture. The persistent pursuit of this goal is creating goal conflicts in our society," such as the achievement of good health, outdoor recreation, aesthetic values and survival of certain species, perhaps including man, Cochrane said.

A system of incentives must be depended on to induce production practices on a broad scale which minimize agricultural production's pollution effects, he said.

He said such incentives might include:

--Payments to induce farmers to distribute animal wastes on non-frozen land.

--Making commercial fertilizers more expensive through taxation to force farmers to use it more economically.

--Making production payments under commodity programs conditional upon the adoption of production practices that minimize environmental pollution.

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171-daz-71

Department of Information  
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St. Paul, Minnesota 55101  
September 20, 1971

To all counties

ATT: EXTENSION HOME ECONOMIST

Immediate Release

IS SCHOOL  
FOR YOU?  
INVESTIGATE

Now that youngsters from kindergarten to college are wrapped up again in school routine, perhaps it's time for mother and dad and working adults in the family to branch out educationally, too.

Don't worry about being too old, learning continues throughout life at every age.

Going for more education generally means some sacrifice. Maybe it's even a bit inconvenient for you or members of your family. It might mean a sandwich supper on the way to class or a later or earlier than usual family dinner a night or two a week. But the cost is usually slim for the gains in new interests and accomplishments. Perhaps it will prove to be very good for the family, giving members additional responsibility as they help make things run smoothly for you to attend class and study.

If you have the desire and make the decision to do something about it, stick to that decision and complete what you start.

Opportunities for learning seem to be endless.

You could enroll in a credit or noncredit course. Your local high school may have adult evening classes or can tell you where to find them whether you want to learn shopwork, to paint, to upholster or to speak a foreign language. If you are short some credits toward a high school diploma, inquire about this at the school, too. There are general knowledge tests that can be taken to count toward high school credits even if you've never been to high school. Many foreign born Americans have learned and improved their English in public school adult classes. These are still available, too.

-more-

add 1--is school for you

Check your local newspaper for classes available near you. Listen to these announcements on radio and television, too. If educational television is available to you, watch schedules for classes you can take in your livingroom if you set aside the quiet viewing time. These could be foreign languages, reading improvement, even sewing or cooking.

Call the University of Minnesota. The General Extension Division conducts both daytime and evening courses in downtown Minneapolis and St. Paul as well as on the University Campus. There are even neighborhood seminars available.

Courses are offered throughout the state through the Agricultural Extension Service of the University of Minnesota. Some of the teaching specialists go in person to towns where courses are given and others' voices travel there via a telephone teaching system called teleteaching. For details consult your county extension office, usually located at the county courthouse.

A sewing class may be as close as your shopping area yard goods store. Local organizations, such as the YWCA, YMCA, International Institute, Weaver's Guild of Minnesota, offer learning situations or sometimes a series of stimulating talks. All will gladly discuss their educational programs with you.

Often professional and civic organizations, such as Home Economists in Home Making (HEIH) or American Association of University Women (AAUW), League of Women Voters have stimulating meetings for the women in the family.

The city of Minneapolis has what it calls a Career Clinic for Mature Women, Inc. in city hall. It's a United Fund agency which offers training courses in such things as office practices and food services for women who may want to enter or return to the business world.

## *Food for Better Health Program*



An Expanded Food  
and Nutrition Education Program  
in Home Economics Extension

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St. Paul, Minnesota 55101  
September 20, 1971

To all counties

ATT: Extension Home Economists

Immediate release

### PESTS IN YOUR PANTRY?

Occasionally in early fall you find various insects that feed on flour cereals, cornmeal, cookies, crackers, macaroni, rice, dried fruit, candy, nuts, red pepper, paprika, chili powder, dry dog food and bird seed. If you do, here are some suggestions from University of Minnesota extension entomologists:

- \* Remove and inspect all food from your pantry and cupboard shelves.
- \* Wash and dry shelves, as well as all dishes and utensils.
- \* "Paint" your shelves, especially the edges, corners and cracks with 2 percent chlordane. (This insecticide is available from hardware stores, garden store outlets and similar businesses. Follow directions on the label for mixing the chlordane). Allow the shelves to dry for 12 to 24 hours.

\* Add clean shelf paper. Put all food products in either metal or glass containers and return to clean shelves. Coffee cans with plastic lids, peanut butter and jelly jars with screw-on lids will do.

After everything is clean and back in place you may be wondering how to prevent insects from contaminating your food. Here are some suggestions:

- \* Buy small amounts of foods you use occasionally.
- \* Store foods in either glass or metal containers.
- \* Use older packages of food before the newer ones.
- \* Look food over carefully when you buy it. If you find insects in a fresh package return it to your grocer immediately.
- \* Keep your cupboards and pantry clean. Do not let cereals, flour, crumbs and pieces of food accumulate on shelves or on the floor.
- \* Keep covers and lids on all food.
- \* Wrap and take out garbage after each meal, or at least once a day.
- \* Clean out cupboards and pantry at least twice a year. Throw away old food.

It's a constant battle. You can win only if you keep all areas where food is eaten and stored clean at all times.

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Department of Information  
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University of Minnesota  
St. Paul, Minnesota 55101  
September 20, 1971

TO ALL COUNTIES

4-H NEWS

IMMEDIATE RELEASE

"4-H BRIDGES  
THE GAP"

Everyone talks about world problems, the generation gap, learning who you are and doing new things, but how many people act instead of merely talking?

Over three and a quarter million youth in the United States show active concern for others in the 4-H program. Many million other 4-H'ers in more than 80 foreign countries are exchanging ideas and also gaining practical know-how from 4-H projects.

\_\_\_\_\_ County 4-H'ers will acquaint the public with 4-H activities and projects during National 4-H Week, October 3-9, using the theme "4-H Bridges The Gap." (Add information about programs, booths, etc., that promote 4-H in your county during the week.)

4-H has been active in Minnesota for over 60 years helping young people grow into responsible adults and active citizens. 4-H'ers show international concern by participating in the Teen Caravan, a two-way exchange between 4-H in the United States and foreign countries. Teens stay with a family in the host country where they learn about the customs, government and agriculture of the country.

The generation gap seems to be negotiated easily by 4-H'ers and 4-H leaders. Each 4-H club has adult leaders who work with the 4-H'ers advising them on their projects, community activities and leadership responsibilities, and older 4-H members help beginning 4-H'ers with their projects. Community 4-H activities are designed to help the senior citizens, children, or mentally or physically handicapped in the area.

add 1 -- 4-H bridges gap

4-H'ers begin to learn who they are by experimenting in project areas that interest them, working with others, taking leadership responsibilities and gaining recognition for outstanding accomplishments. "They have the opportunity to learn new areas of interest, think and decide how they relate to others," according to Juanita Fehlhafer, assistant state leader 4-H and youth development at the University of Minnesota.

For additional information about joining 4-H or becoming an adult leader contact County Agent \_\_\_\_\_ at the county extension office.

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St. Paul, Minnesota 55101  
September 20, 1971

To all counties  
Immediate release

HIGHER MILK PRODUCTION,  
GOVERNMENT REMOVALS SEEN

Slightly increased milk production, lower commercial sales and rising government support purchases are in prospect for 1972, according to University of Minnesota agricultural economists.

Prices received by dairymen will be strongly influenced by the support purchase program with smaller than normal seasonal variation, economists Martin Christiansen and Kenneth Thomas said.

Milk production for 1971 likely will total around 118.6 billion pounds, about one percent above last year. This increase is the result of a two percent increase in production per cow while cow numbers have been declining one percent for the year. At the same time, commercial milk purchases appear to be declining.

These divergent trends will likely continue into 1972. Ample herd replacements and improved milk-feed price relationships should lead to increased production. At the same time, commercial milk purchases will likely decline further, resulting in increased government purchases.

This will tend to stabilize prices near support levels in 1972. With increased production, cash receipts should increase slightly. However, higher farm costs will likely offset most of this gain, the economists said.

If current trends continue, Minnesota dairymen face several major issues with regard to their industry. If the imbalance between supply and consumption becomes large, what shall be done about it? Supply control programs and increased advertising are possible remedies that may be needed in the future.

Here, the problem will be one of finding ways to permit Minnesota dairymen to participate in the returns from fluid sales over a wider area.

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St. Paul, Minnesota 55101  
September 20, 1971

To all counties  
Immediate release

FALL FERTILIZATION  
BALANCES WORK LOAD

A University of Minnesota extension soils specialist says that farmers can balance their seasonal work load by fertilizing in the fall instead of in the spring.

Curtis Overdahl says that besides balancing seasonal work loads, fall fertilization allows the farmer to stay out of the fields in the spring when soils are wet and easily compacted. And wet soil in the spring often makes it difficult to finish spring fertilizer application before planting time.

Overdahl says that because early planting usually gives a high yield, it is not desirable to delay planting of corn, sugar beets or small grains to apply fertilizer.

Rates, grades and type of fertilizer should be applied according to soil test recommendations for the most economical return. If soil test results are not obtained, use the general recommendations by soil areas found in University of Minnesota Extension Pamphlet 194, titled "Crop Production Guide for Minnesota."

Overdahl suggests that farmers see their extension agents for more detailed information on fall fertilization and soil testing.

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St. Paul, Minnesota 55101  
September 20, 1971

To all counties  
Immediate release

FALL IS BEST TIME  
TO APPLY LIME  
FOR SPRING ALFALFA

Farmers who plan on seeding alfalfa in the spring should determine the lime needs of their soil now and apply lime in the fall if it is needed, particularly in eastern Minnesota.

Much land used for alfalfa must be limed for both a successful seeding catch and stand maintenance, says Curtis Overdahl, University of Minnesota extension soil specialist. Proper liming will reduce acidic soils to near neutrality, and long-term rotations show that maximum crop yields are produced from soils that are nearly neutral with respect to acidity.

Overdahl advises farmers not to topdress lime on legume sod, and not to wait until the new seeding is planted and then hope that surface applications will benefit the immediate crop.

Changing an acid soil to one neutral enough for alfalfa takes at least six months, even when the lime is well mixed with surface soil.

A set of soil samples should be taken to determine the proper amount of lime for a field. Recommendations on how much lime is needed to correct acid soil conditions can be made fairly accurately from soil samples.

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September 20, 1971

To all counties  
Immediate release

IN BRIEF. . . .

Fall Tax Management. Now is a good time to get your tax figures together and make some preliminary taxable income estimates. After December 31 it's too late to save money by using income and expense management on your business, says Charles Cuykendall, University of Minnesota agricultural economist.

Consider the tax impact of two years' crops sold in the same year. If you sell this year's crop, will it put you in a higher tax bracket? Income averaging can reduce the tax burden if you have abnormally high revenues in any one year due to farm sales, asset disposition or windfall revenues.

Another income tax management suggestion is to purchase some of next year's supplies this fall. This may also avoid potential price increases in the spring or after the price freeze.

\* \* \* \*

Take Representative Soil Sample. Soil test results can be no better than the sample, University of Minnesota soil scientists say. As a general rule, any area that is different in slope, texture and color and is large enough to be fertilized separately should be sampled separately. Avoid, or sample separately areas such as dead and back furrows, terraces, old fence rows, roads, old manure or straw pile spots, lime or fertilizer spill areas, fertilizer bands, animal droppings, urine spots, eroded knolls and low spots. Dust from crushed rock roads also affects soil acidity, so take samples at least 300 feet away from such roads.

\* \* \* \*

-more-

add 1--in brief

Sow Herd Efficiency Important. Minnesota hog producers can measure the efficiency of their herds to determine if they are doing as well as expected.

University of Minnesota swine specialists recommend comparing your herd against the following criteria:

\* Conception rate should average 70 to 80 percent at the first mating. A 90 percent average is excellent.

\* Average litter per sow per year should be at least 1.7 to 1.8. A good average is 2.0.

\* A good herd should average over 8 pigs to weaning per litter.

\* \* \* \*

Make Sure Wild Mushrooms Are Edible. Do not eat any wild mushrooms unless they are identified with 100 percent certainty and are known to be safe for eating, warns a University of Minnesota plant pathologist, Clyde Christensen. Most deaths from mushrooms are caused by the Amanita verna, he says. Information on edible wild mushrooms can be obtained by asking for the illustrated Extension Bulletin 357, titled "Edible Wild Mushrooms," from the Bulletin room, University of Minnesota, St. Paul, 55101. Copies are available from the county extension office.

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St. Paul, Minn. 55101 Tel. 373-0710  
Sept. 21, 1971

Immediate release

## FAO CHIEF TO GET TOP UM AWARD THURSDAY

The acting director of the Plant Production and Protection Division of the United Nation's Food and Agriculture Organization (FAO) was honored by the University of Minnesota Thursday night (Sept. 23) at a testimonial dinner at the St. Paul Campus.

The FAO official, Lee Ling, **received** the Outstanding Achievement Award, which is presented to alumni or former University of Minnesota students who have attained distinction in their chosen fields, professions or public service.

Ling, who received a doctorate degree in plant pathology from the University in 1937, is being recognized for his efforts with the FAO to increase the world's food supply, particularly in developing countries, and stabilize food production.

His principal achievements have been in the FAO's Plant Production and Protection Division. While serving as chief of crop protection, he was responsible for developing and organizing the plant protection activities within the FAO and for strengthening international cooperation.

He established seven regional plant protection organizations and developed an international desert locust control program, which resulted in maintaining locust recession for the last seven years. Ling initiated a program to study the safe and effective use of pesticides in agriculture. He promoted an integrated pest control approach, including establishment of an FAO Panel of Experts on Integrated Pest Control, and has provided assistance to many countries on plant disease and pest problems.

--more--

add 1--lee ling honored

Ling became deputy director of the Plant Production and Protection Division in 1968 and currently serves as acting director of the division. He joined the FAO in Washington in 1947 as a plant pathologist after becoming the number one man in agricultural research in Taiwan. Ling served in 1937 as head of the Division of Plant Protection of China's Szechwan Provincial Research Institute. In 1938 he joined the faculty of the University of Nanking where he served until 1944. He was appointed director of the Taiwan Agricultural Research Institute in 1945.

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Department of Information  
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St. Paul, Minnesota 55101  
September 27, 1971

To all counties  
Immediate release

SOYBEAN FEED  
COOKED ON-THE-FARM

It is feasible to produce a good protein soybean feed for poultry and turkeys by on-the-farm cooking, according to an Iowa State University scientist.

In feeding trials, broiler chickens raised to four weeks needed 1.71 pounds of soymeal per pound of gain, 1.77 pounds of infrared treated soymeal, 1.69 pounds of extruded soymeal or 1.63 pounds of soymeal and oil per pound of gain, reported animal scientist S. L. Balloun. He presented his findings last week (Sept. 21) at the thirty-second Minnesota Nutrition Conference in downtown Minneapolis.

"These trials all indicate that it is entirely feasible to produce a good protein feed by on-the-farm cooking. However, one should realize that quality is not automatic and that very careful supervision and monitoring of the process is a must," he said.

Economic considerations will determine whether the feeder will turn from solvent-extracted meal to unextracted, cooked soybeans, he said.

"Based on our results, if 49 percent soymeal costs \$90 per ton, one could afford a price of \$80 per ton for unextracted, properly cooked, beans," Balloun said.

A booklet containing all presentations given by researchers at the conference can be obtained by sending a request and \$4 to the Office of Special Programs, University of Minnesota, St. Paul 55101.

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