

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tél, 647-3205  
April 2, 1963

Immediate release

## TREATMENT RECOMMENDED FOR VEGETABLE SEEDS

Seed treatment generally pays off for commercial vegetable growers, according to Herbert Johnson, extension plant pathologist at the University of Minnesota.

Johnson says that even though most vegetable seed is grown in relatively dry, western United States areas, it is still possible that the seed may be infected with fungi or other plant diseases.

Because such diseases sometimes are difficult to control on the growing plants, hot water treatment or soak treatment of seed in mercuric chloride are valuable for many crops, Johnson says.

He recommends hot water treatment for cabbage, broccoli, carrots, rutabagas, turnips and tomatoes.

Soak treatment in mercuric chloride solution is used for cucumber, squash, melons, pumpkins and peppers.

Johnson warns that the specific instruction for each treatment must be followed accurately to prevent seed damage and to get maximum disease protection. Crop rotation also should be used in conjunction with seed treatment, Johnson says. This applies to starting beds as well as the fields where the crops are grown.

Specific information on seed treatments can be found in "Commercial Vegetable Pest Control Guide," available at county extension offices or from the Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul 1.

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#### 4-H KEY AWARD PROGRAM ENTERS SECOND DECADE

The 4-H Key Award program enters its second decade in Minnesota this year, Leonard Harkness, state 4-H Club leader at the University of Minnesota, announced.

The Cities Service Oil Company has sponsored the program the entire time.

Purpose of the 4-H Key Award program is to give recognition to 4-H Club members who have provided significant leadership in their club and in their county. Its objectives are to encourage project growth, to develop a broad program of 4-H Club participation over the years and to provide for the ultimate development of outstanding citizens.

More than 5,700 Minnesota 4-H'ers have received the Key Award in the 10 years of the program, Harkness said.

One eligibility requirement for the Key Award is that 4-H'ers complete three years of active junior leadership. Other requirements include participating in 4-H projects, holding an office in the local 4-H Club, demonstrating, exhibiting, participating in special events, acquainting others with 4-H work and serving on county committees.

The award is a gold key mounted on a gold necklace for the girls and on a tie clasp for the boys.

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## ATTITUDES TOWARD AGRICULTURAL POLICY STUDIED

Whether a farmer takes part in the Feed Grain Program helps predict how he feels about other kinds of national farm policy, a recent study shows.

In general, the Feed Grain Program participant is more likely to prefer support prices for corn and hogs, and less likely to desire a "free market" for those commodities.

These are some of the findings from a survey of 304 farm operators in 16 southern Minnesota counties, conducted by James L. App, extension economist, and W. B. Sundquist, U. S. Department of Agriculture economist at the University of Minnesota.

Beyond some consistency in their preferences, however, the study showed that many farmers are not especially realistic about the prices they would like in combination with the procedure they would like to see used to get them.

Analysis of farmer's preferences for free market versus price supports indicates the following results: In Southeastern counties, 43 percent of the farmers participating in the 1961 Feed Grain Program favored supports for both corn and hogs. In the Southwest, the figures were 33 and 22 percent, respectively for participants and non-participants. Additional farmers favored supporting the price for one but not both of these farm products.

In each case, participants thought that a goal of national farm policy should be a corn price of somewhere between \$1.11 and \$1.14 per bushel among those preferring a free market, and between \$1.17 and \$1.30 for those preferring support prices. For hogs, there was little variation according to what kind of farm policy the person preferred or whether he participated in the Feed Grain Program or not; either way, the desired price averaged a good \$1.75 above the 5-year average for South St. Paul.

Farmers were also asked, "If a system of reducing agricultural production is needed, should it be voluntary or mandatory?" More than two-thirds of all persons interviewed indicated voluntary programs as the best choice. About a fourth preferred a national supply management program and the rest had no preference.

(more)

add 1 -- attitudes studied

In some cases there was a direct conflict between means and goals. Of all farmers preferring a free market situation, between 10 and 18 percent also preferred a national supply management program to help reduce production. The usual interpretation of a "free market" system, however, implies lack of any public production controls.

When asked what each participating farmer should be required to do to reach the established price goals, the most common response referred to taking some cropland out of production or having a choice of methods. Little interest was shown in removing whole farms from production.

The surveyors asked "Are there better ways of controlling feed grain production than those already listed?" Here the response was closely tied to a person's attitude toward price supports. Of those advocating a free market, seven out of eight said "yes." Of respondents preferring price supports for either corn or hogs but not both, more than 50 percent in the southeast and 75 percent in the southwest said "no." Of persons advocating price supports for both corn and hogs, about 80 percent said there were no better ways than the current program to control feed grain production.

Among respondents preferring a free market or support prices for only one of the two products, there were two main types of suggested improvements. In the southeast, more than 85 percent said farmers should integrate purchases and sales through a farmer controlled organization. Such an organization would establish market quotas on the members to reduce production. In the southwest, however, 80 percent of those advocating a free market or price supports for no more than one product were for complete removal of government from agricultural price policies and support programs, leaving forces of supply and demand to establish price levels.

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To all counties  
ATT: HOME AGENTS  
Immediate release

PLANT ORNAMENTALS  
TESTED FOR  
MINNESOTA GARDENS

Perennial flowers and ornamental shrubs adapted to the rugged Minnesota climate and now available for home planting are increasing in number, thanks to the efforts of University of Minnesota horticulturists.

The University programs of breeding and selecting ornamentals for Minnesota conditions have greatly enriched the offerings of northern nurseries. Testing plants from various parts of the world, such as is being done at the Landscape Arboretum, is also increasing the number of worthwhile ornamentals for this area according to Leon C. Snyder, head of the University's horticultural department.

Home Agent \_\_\_\_\_ points out that gardeners who will be ordering perennials or ornamental shrubs this year will do well to select Minnesota-developed or tested varieties. Among the ornamentals that have been developed by University horticulturists are these:

- . Chrysanthemums: Tenstrike, a bright lavender 'mum introduced this spring. A high-mound type of plant, it has  $1\frac{1}{2}$ -inch fully double flowers which start blooming about mid-August. Other popular Minnesota-developed chrysanthemums are the lavender Dr. Longley, yellow Wayzata and Golden Fantasy, raspberry pink Wanda, white Prairie Moon and Glacier, the rust Minn-Autumn and Harvest Bronze, bronze fading to an attractive yellow.
- . Roses: Viking Queen, a new large, fully double pink rose; White Dawn, a climber; and Prairie Fire, a bright red semi-double floribunda.
- . Woody ornamentals: Vanguard flowering crabapple, introduced this spring; Flame and Radiant crabapples and the Newport plum.

Varieties of woody plants resulting from the University's testing program at the Arboretum and now available from local nurseries include Korean boxwood, Chinese bittersweet, Toba hawthorn and Royal Purple Smokebush.

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To all counties  
4-H NEWS  
Immediate release

PLAN NOW FOR  
VEGETABLE GARDEN

You don't build a house without blue prints, nor should you start a garden without a plan.

Orrin C. Turnquist, extension horticulturist at the University of Minnesota, gives this advice to 4-H'ers in the garden project as well as the other gardeners.

After making your plan to scale on paper, set down the spacing between rows, the crops and varieties to be planted, date of planting, length of row of each crop and general arrangement of the crops. Thus your plan is functional and can work for you in identifying varieties later.

Turnquist gives these planning pointers for your vegetable garden:

- . Put perennial vegetables like asparagus and rhubarb along with small fruits on one side of the garden where they won't interfere with garden preparation.
- . Group crops according to the time they mature to make possible the use of succession plantings or rotation, or planting of green manure crops after harvest of the early crop.
- . Plant vine rows along one side so they can spread into the fence row.
- . Allow ample room so each vegetable can develop properly.
- . Don't plant too much of such crops as chard, leaf lettuce or parsley. If you remove a few leaves from several plants, the plants will produce a continuous supply of high-quality produce over a longer period.

A scale and record chart are included in the 4-H home garden record to help you plan your garden. You may also wish to contact your County Extension Office for Extension Folder 164, Getting Started with Your Vegetable Garden; 154, 1963 Vegetable Varieties; or 172, Summer Care of Vegetable Gardens.

Once you have your garden started, you'll have to be on the watch for troublesome insects. Check your crops regularly and consult garden literature or specialists to identify these pests. Use recommended procedures for their control and enter this information on your 4-H garden record right away. Don't wait to identify insects and jot down control measures just before your record is due.

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To all counties  
ATT: HOME AGENTS  
Immediate release

FALLS TOP ALL  
HOME ACCIDENTS

A makeshift ladder or a throw rug on a waxed floor may set the stage for a fatal accident or for weeks or months in the hospital.

Last year falls in Minnesota homes caused 180 deaths -- nearly half of the home accidents in which Minnesotans lost their lives. In addition, falls were responsible for thousands of broken limbs, for back injuries and serious bruises that were costly in suffering and in time lost from work.

Although home accidents took 40 fewer lives last year than in 1961, the home still ranks second to the highway as the scene of most fatal accidents. And falls far outrank other causes of home accidents, according to Glenn Prickett, extension safety specialist at the University of Minnesota.

About a fourth of the fatal falls last year occurred on the same level; the rest were falls to different levels -- for example, on stairs or from ladders. The older age groups are in greatest danger of falling. Last year 109 men and women 75 years and older died as a result of falls. Three-fourths of these falls were from different levels. Thirty-seven of the fatal falls occurred in the 65-74-year group.

Every home can be made safer from the danger of falls, Prickett says, if the family analyzes the hazards and dangerous practices and then makes every effort to remove them. Here are some safeguards he suggests:

- . Have adequate lighting at the head and foot of stairs.
- . Install handrails if you don't have them on the stairs.
- . Never use throw rugs unless they are anchored in some way, for example by a skid-retardant pad.
- . Avoid carrying high loads that obscure your vision.
- . Use a sturdy step stool to reach into a high cupboard.

The amount you pay for such a stool is a safety investment that will repay you many times over.

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To all counties

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WATCH YOUR TREES  
FOR CANKERWORMS

Homeowners in areas which had cankerworm trouble last year should keep a sharp lookout the next few weeks for infestations in their shade trees.

John Lofgren, extension entomologist at the University of Minnesota, says that the pesky "measuring worms" will hatch out just about as the first elms leaf out. A heavy infestation can strip elm, basswood, boxelder or apple trees of their leaves. They may also attack maple, oak, ash fruit trees and ornamental shrubs.

Lofgren says to save the foliage, trees must be thoroughly sprayed with DDT, methoxychlor or sevin soon after the worms hatch. Female non-flying moths of spring cankerworms are laying their eggs about now. Fall cankerworms' eggs were laid last fall. Eggs of both kinds will hatch out this spring.

For more information on cankerworm control, ask your county agent for Entomology Fact Sheet 21, "Cankerworms." Or write to the Bulletin Room, Institute of Agriculture, St. Paul 1.

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To all counties  
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SILO UNLOADERS NEED  
PROPER POWER, CARE

Mechanical silo unloaders have taken much of the labor and danger from unloading upright silos. They also team up well with mechanized and automated feeding systems.

Most commonly used silage unloaders, according to Arnold M. Flikke, agricultural engineer at the University of Minnesota, in an article in Minnesota Farm and Home Science, are the top unloading or surface unloaders. These either are suspended from a tripod on top of the silo by a pulley and cable arrangement or ride on the surface of the silage on wide-rimmed wheels.

Base unloading units usually are built with the silo and are installed by the manufacturer, Flikke says.

A large variety of surface unloaders are on the market, Flikke says. All of them loosen the silage, convey it to a central point and then discharge it from the silo.

Some of them use an auger or a pair of augers to move the silage to the central area. Others use a chain with paddles or spiked teeth to do the job. All unloaders have special knives to cut frozen silage free from the silo walls, but their efficiency depends on smoothness and roundness of the silo wall.

Loosened silage is removed from the silo through a curved delivery spout out of the silo doors. Flywheel or paddle wheel arrangements with blowers lift and blow the silage clear of the silo.

Suspended units usually have the advantage that the cable controls are within the operator's reach so he can control unloading rate. Flikke says they also permit lifting the unloading mechanism from the surface so that it can clear itself after use and so that the mechanism does not freeze to the silage.

add 1 - silo unloader

Surface-riding units need to be adjusted to silage cutting depth only once during the season. A clutch arrangement prevents overloading the blower and stopups.

Flikke says that the main unloader problems come from overloading the machine and consequent burnout of the motor. This is caused by too high rates of unloading, variations in ensiled materials, silage freezing and improper adjustments of the machine.

Best motor protection is to install an ammeter in the electric circuit powering the motor so that the operator can keep a check on the amount of power being used and can adjust the load accordingly.

Motors must be installed in accordance with the National Electric Code with adequate wiring and protective devices. Motors can be protected against overload by built-in overload protectors, manual or magnetic starting switches and time delay fuses. Motor bearings should be greased each season after use to prevent shaft damage and pitting.

Flikke recommends these practices:

- . Fill the silo uniformly to minimize hard and soft spots. It may pay to use a silage distributor.
- . Protect the silage from excessive moisture.
- . Unload the wet or decayed silage on top by hand.
- . Run the unloader slightly above silage level first to level off high spots.
- . Inspect the operation regularly. A good time is when you remove a door.
- . Avoid overloading.
- . After each feeding, allow the unit to clear itself. Keep the unloader from freezing to the silage to avoid heavy starting loads on the motor.

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C O L U M N F I L L E R S

Seed of unknown germination quality is an especially poor risk this year. According to Harley Otto, extension agronomist at the University of Minnesota, a large amount of Canadian wheat and other seeds was damaged last year by frost. Some seed so damaged scores less than 50 percent germination. Otto points out that all seed sold in Minnesota must carry an analysis with germination data on it -- so it's easy to check.

\* \* \* \*

Little air bubbles that get in the way of flowing liquids are complicating the wood treatment process, according to a theory developed by University of Minnesota foresters. The problem is that wood tends to absorb treatment liquid rapidly, up to a point. But then absorption decreases markedly, long before the wood is saturated. Tests have shown that air bubbles may actually get stuck in wood capillaries, thereby reducing liquid flow. Procedures that prevent air bubbles from forming in the treatment process may help reduce the problem.

\* \* \* \*

Irrigate because of low soil moisture? No, say scores of farmers who have been irrigating for years in several parts of Minnesota. They use sprinkler equipment to get more control over how much moisture fields get and when. E. R. Allred, University of Minnesota agricultural engineer, says most fertilizer and plant population recommendations are based on probable soil moisture. In dry years, the recommendations may be too high. In wet years, they may be too low. Irrigation removes the uncertainty, by allowing a farmer to figure on a certain moisture level.

\* \* \* \*

Farm fire losses in Minnesota during 1962 totalled some \$2.8 million, according to a report from the State Fire Marshal's office. These losses reflect 232 barn fires, 134 fires in farm dwellings, 46 fires involving tractors, and many more involving other buildings and equipment. A total of 580 farm fires was reported.

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Immediate release

FERTILIZING METHOD  
VARIES WITH FIELDS

Which is better for corn -- fertilizing in the row or broadcasting it before planting?

Either method can be used, but the final choice depends on the situation, according to Lowell Hanson and C. J. Overdahl, extension soils specialists at the University of Minnesota. Factors to consider are fertility level, soil type, capital available and importance of saving labor.

Here are the situations which favor row application with a planter attachment:

- \* Fine textured, level lying soils that tend to be cold and high in moisture at planting time.
- \* Medium to high fertility level, where a corrective build-up application of phosphorus and potassium is not needed.
- \* Availability of a corn planter with a disc placement fertilizer attachment and time and labor enough to calibrate and apply fertilizer during the planting operation.
- \* A desire for maximum return per dollar spent for fertilizer the first year.
- \* Soils medium to low in potassium level.

Situations which favor broadcasting the fertilizer are:

- \* Soils that are relatively well drained and warm up rapidly in the spring.
- \* Low fertility level soils where some of the benefit of the fertilizer is expected as carryover for the crops to follow corn.
- \* A high premium on saving time and labor at planting time. This would be the case when a large acreage of corn is to be planted or other enterprises are competing for time during corn planting.

add 1 - fertilizing method

A summary of 44 fields in 1963 showed that 40 pounds of phosphate applied in the row resulted in an 8.2 bushel average yield increase, while the same amount broadcast gave a 5.6 bushel response or 2.6 bushels less.

These data show the advantage of row-applied fertilizer, especially with cold, high moisture conditions as occurred in 1962. However, some farmers may not feel this yield difference is enough to warrant the additional work of handling fertilizer with the planter.

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## PORK, CHICKEN GOOD BUYS THIS WEEK

Pork or chicken may be your best choices in meats for this week-end if you're looking for good buys, Mary Ryan, extension consumer marketing specialist at the University of Minnesota, said today.

The large supplies of pork expected on the market this spring have begun to show up in Minnesota retail stores at low prices. Pork chops, pork roasts and bacon are featured in some markets this week. Consumers may find specials on chicken this week also.

Canned tuna fish continues to be reasonably priced.

Large supplies of canned fruits and vegetables are keeping prices of many items lower than last year's average prices, according to Miss Ryan. She suggests that consumers watch for specials and stock their shelves with such canned goods as fruit cocktail, pineapple juice, corn and tomatoes.

Bananas are still plentiful and moderately priced.

In the fresh vegetable section of your market this week you can find California asparagus, lettuce and celery, Texas carrots, Nevada green onions, Florida radishes and tomatoes from Mexico. Tomatoes and carrots are not too expensive, but watch the quality.

As for staples, this is a good time to stock up on flour, Miss Ryan says, since 5-, 10-, and 25-pound sacks are being featured. Some stores, too, are having sales on cake mixes this week. You may find specials on your favorite brand of coffee. Two-pound cans of a number of brands are priced at 89¢, 99¢ or \$1.09.

If your family is fond of cereal, look for good values in corn flakes. But check the weight and price. Anything less than 27¢ per 12-ounce package should be a saving on the budget.

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## FARM FIRES CAUSE \$2.8 MILLION LOSS IN MINNESOTA DURING 1962

About \$2.8 million worth of farm property and products went up in smoke in Minnesota during 1962, according to a recent report from the State Fire Marshal's office.

The loss figure shows little change from recent years, says Glenn Prickett, extension safety specialist at the University of Minnesota in citing the report.

A total of 580 different farm fires were reported during the year. In addition to the financial loss, these fires accounted for 18 deaths.

Fires in barns continued to be the most common single type of fire on farms, accounting for 232 of the total. Other types of fires, in order of occurrence, were dwellings, 134; tractors, 46; hay and straw (other than in barns) 32; poultry houses, 22; sheds and shops, 21; machinery and equipment, 16.

However, 164 of the fires were classified as "miscellaneous."

The most frequently reported causes of 1962 farm fires included inadequate, defective or misused electrical equipment; heating units; rubbish and grass fires; defective chimneys, lighting; careless smoking; sparks or burning rubbish from tractors, careless handling of petroleum products and spontaneous combustion.

Prickett says the causes of fires suggest the areas of concern in preventing holocausts. Electrical systems need periodical checking by qualified electricians. Regular checking is also important for heating equipment, including chimneys.

Tractors should be stored where they are clear of trash and won't endanger buildings and other equipment should fire occur. Liquid fuels should be stored 40 to 75 feet from buildings. And approved fire extinguishers are a useful precaution around any home or farm.

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#### DISTRICT 4-H SHARE THE FUN EVENTS IN JULY

Dates have been set for the 1963 district Share the Fun Festivals, William Milbrath, assistant 4-H Club leader at the University of Minnesota, announced today.

The six district events to be held in July are as follows: high school auditorium, Preston, July 9; high school auditorium, Prior Lake, July 10; Little Theatre, senior high school, St. James, July 11; high school auditorium, Benson, July 16; elementary school auditorium, Mahnomen, July 17; and high school auditorium, Aitkin, July 18.

Acts selected from county shows will comprise the district events. From these programs, 15 to 18 acts will be chosen for the state Share the Fun Festival held during the Minnesota State Fair.

Acts may be either musical, dramatic, folk and square dancing or novelty, stunt or skit.

Last year nearly 10,000 4-H'ers took part in the festivals, according to Milbrath.

Share the Fun began in 1949 as a Search for Talent contest co-sponsored then, as now, by the University of Minnesota Agricultural Extension Service and Cargill, Inc. District and state participants will be chosen on the basis of their performance, audience appeal and appearance and their ability to contribute to a well rounded entertainment program. No winners are chosen at the state event.

The program promotes fun and fellowship for participants, encourages creativeness, gives confidence and develops leadership as 4-H'ers share their talents with others, states Milbrath, in charge of district and state events.

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## HOME ACCIDENTS KILLED 378 MINNESOTANS IN '62

Home accidents took 40 fewer lives in 1962 than in 1961--but the home still ranks second to the highway as the scene of most fatal accidents, Glenn Prickett, extension safety specialist at the University of Minnesota, reported today.

Last year 378 Minnesotans lost their lives in home accidents. Falls were responsible for nearly half of that number--180--far outranking any other cause of the fatalities. Seventy-three Minnesota residents died as a result of fires and burns--the second cause of most accidental deaths in the home. Poisons and firearms ranked third and fourth as causes, with poisons taking 22 lives and accidental discharge of firearms, 14.

Almost three-fourths of falls that ended in death last year were from different levels--for example, on the stairs or from step stools.

Since spring cleaning often sets the stage for falls, Prickett cautions homemakers to:

- . Use only sturdy step stools when climbing to take down draperies or pictures, to wash walls or clean cupboards. Makeshift step stools of boxes on top of chairs lead to many a fall.
- . Avoid over-reaching and thus losing your balance when standing on a step stool or ladder.
- . When carrying loads up or down stairs, make them small enough so they do not obstruct your view of the steps.
- . Take a break when you feel tired.
- . Dress sensibly for your cleaning chores.

Prickett also urges homemakers to take advantage of housecleaning time to improve the safety of the home by:

- \* Clearing all stairs of toys, cleaning equipment and other tripping hazards. Stairs are not designed for storage.
- \* Mending holes in stair carpeting and seeing that other steps are in good repair.
- \* Installing handrails for all stairs.
- \* Installing adequate lighting in stairways and light switches at both top and bottom of the stairs.
- \* Cleaning the medicine cabinet and destroying all old medications.

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## MINNESOTA FARM CALENDAR

### APRIL

3, 10, 17 and 24 (and May 1)	Home Landscaping Workshop, Grand Rapids
3, 10, 17 and 24	Feed Dealers Short Course, Rochester
4, 11, 18 and 25	Feed Dealers Short Course, Sleepy Eye
6	Quarter Horse Short Course, St. Paul Campus
15	Resorters' Institute, Grand Rapids
16	Twin Cities Nutrition Institute, St. Paul Campus
17	Cooperative Managers and Directors Leadership Training Session, Grand Rapids
20	Dairy Industries Career Day, St. Paul Campus
20	Home Economics Day, St. Paul Campus
22 - 25	Minnesota State Fire School, St. Paul Campus
30 (and May 7, 14, 21 and 28)	Grain Elevator Short Course, Waseca

### MAY

1	Home Landscaping Workshop, Grand Rapids
1, 8, 15, 22 and 29	Grain Elevator Short Course, Lamberton
2, 9, 16, 23 and 31	Grain Elevator Short Course, Morris
3 - 4	Minnesota Academy of Science, St. Paul Campus
3 - 4	Beekeepers' Short Course, St. Paul Campus
5 - 7	FFA Convention and Short Course, St. Paul Campus
7, 14, 21 and 28	Grain Elevator Short Course, Waseca
14 - 16	Home Agents Spring Conference, St. Paul Campus
16	Minnesota-Iowa Livestock Conference, Austin
31	Livestock Breeders Association Annual Meeting, St. Paul Campus

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## EXTRA-PROFIT CORN CONTEST HAS NEW PROVISIONS

New provisions for the 1963 Extra-Profit Corn Contest in Minnesota were announced this week by Curtis Overdahl, extension soils specialist at the University of Minnesota and supervisor of the contest.

Educational purpose of the program in recent years has been to help farmers boost net profits from each acre of corn grown. Earlier, the emphasis was entirely on increasing per-acre yields.

The new provisions for 1963 are these:

\* Machine harvesting of contest plots by picker, picker-sheller or combine, instead of hand harvesting as in the past.

\* Weighing of all corn on an approved elevator scale after shelling, on a 15.5 percent moisture basis.

\* Entry of one field of no less than 6 acres for each contestant. Most of the field will represent conventional corn-growing practices of the farmer, and a three-acre section will be used to determine whether a boost in net return per acre is possible. Therefore, the comparison will be between "conventional" and "extra or sometimes fewer practices," rather than between fertilized and unfertilized plots as in the past.

\* Only one division in the contest--net return. Each contestant will match his net return against those of others in his zone and in the rest of the state.

Other rules are similar to previous years.

The program is sponsored cooperatively by the University of Minnesota Agricultural Extension Service and The Farmer magazine, St. Paul. Farmers wishing to take part may check with their county extension agents.

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## MINNESOTA IFYES LEAVE FOR ASSIGNMENTS

Minnesota will send two young men to Europe this month as International Farm Youth Exchange delegates.

Winton Nelson, 21, Atwater, will go to England and Wales, and Richard Harris, 25, New Ulm, to Switzerland.

Beginning April 12 they will spend a week of orientation in Washington, D. C., before flying from New York April 20. Schedules are planned so IFYEs are in their host countries during the peak of the agricultural seasons.

Both young men will spend five months living and working with farm families in their host countries.

Since 1948, more than 3,000 young people have taken part in the exchange between the United States and 63 cooperating countries. Plans for 1963 include a total of 135 two-way exchanges between the U. S. and countries in Europe, Asia, Africa and Latin America, according to Evelyn Harne, associate state 4-H leader at the University of Minnesota.

Nelson is a senior in soils and agricultural economics in the College of Agriculture, Forestry and Home Economics at the University. As a 4-H member he won three grand championships at the State Fair for demonstrations and was awarded a trip to National 4-H Club Congress in Chicago for his achievements in soil conservation.

A long-time 4-H member, Harris has been working on his father's farm this past year. He is a graduate of Mankato State College and taught last year in St. Peter junior high school.

The International Farm Youth Exchange is sponsored by the National 4-H Foundation and the Agricultural Extension Service to further international understanding. The IFYE philosophy is that understanding people of other countries is basic to world peace.

In 1962 Minnesota sent four IFYE delegates abroad--to Norway, Germany, Ecuador and Turkey--and was host to nine exchangees from as many countries.

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## RESEARCH PINS DOWN LOW TEMPERATURE PROBABILITIES

What are the chances of freezing weather after the spring seeding is done?

Don't expect one answer for all of Minnesota. But weather data compiled from 75 U. S. Weather Bureau stations around the state can tell you the probabilities of different temperature levels on different dates in different places.

The research was done by Donald Baker, soil climatologist at the University of Minnesota, and Joseph H. Strub, Jr., state climatologist for the Weather Bureau.

Here are some examples of what they found. Down in Albert Lea, there's a 60 percent probability that temperatures will dip to 16 degrees or lower on or after March 19 and the same probability exists that it will drop to 24 degrees or lower after April 3. A "60 percent probability" is the same as saying that you can expect such a temperature occurrence in about six years out of ten.

Or take a look at Montevideo. Farmers there can expect, with a 60 percent probability, temperatures of 24 degrees or lower on or after April 13, of 28 degrees or lower on or after April 25, and 32 or lower on or after May 5.

At St. Cloud, the probabilities are fairly similar to those at Montevideo. But go up to Crookston and you find the 60 percent probability for 28 degrees or lower after May 4 and for 32 or lower on or after May 16.

One needn't be content with these probabilities or temperature levels. Baker and Strub have published these probabilities in complete charts for 8 levels of probability--10 through 90 percent-- for 8 different temperature levels in the 75 state areas. The charts are in a recent Agricultural Experiment Station bulletin, "Climate of Minnesota."  
(more)

add 1 -- low temperature probabilities

Such predictions, say Baker and Strub, will be most useful in overall planning for kinds of crops and cropping dates over a period of years. That is, their data is a climatological prediction based upon past years of records, and is different from the meteorological forecast that you get in daily newscasts.

Baker and Strub avoid talking about probabilities of frost as such. Many factors influence the degree of injury to plants subjected to certain levels of temperature. Plant injury increases with duration of low temperatures and a rapid drop is more harmful than a gradual one.

Frost may or may not occur when temperatures are below freezing, depending on whether or not the temperatures drop below the dew (frost) point.

Plants vary widely in their hardiness to cold, both within and between species. Also, there is variation in injury susceptibility at different stages of growth and on different parts of the plants.

Because of these variations, Baker and Strub confined their data to occurrence of specific temperature levels.

One ultimate use of these data is in helping farmers figure the chances of a freeze-free growing period of a certain length. For example, the data shows that at Morris, the probability is only 40 percent that the period of May 22 to September 25 will not see temperatures drop to 32 degrees or lower. Such probabilities can be worked out for any of the 75 stations in the state.

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63-115-pjt

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
April 9, 1963

Immediate release

## HOME EC CAREERS HIGHLIGHTED AT U ON HOME EC DAY

High school girls considering home economics as a career will get a preview of professional opportunities when they attend the University of Minnesota's annual Home Economics Day on the St. Paul Campus Sat., April 20.

A purpose of the event is also to acquaint high school students with the home economics curriculum at the University.

Keith McFarland, director of resident instruction in the College of Agriculture, Forestry and Home Economics, and Roxana Ford, acting director of the School of Home Economics, will welcome the guests at the opening program in Coffey Hall Auditorium at 9:15 a.m. following registration. Included on the morning program will be student skits portraying campus life and short talks by students and staff members representing seven different divisions of home economics. They will discuss course work and career opportunities.

Tours of the Agricultural Library, the Student Center, the dormitories and McNeal Hall are also scheduled for the morning. Special exhibits will be on display in each of the home economics divisions in McNeal Hall.

A buffet luncheon will be served in the North Star Ballroom of the Student Center at noon. Featured entertainment will be a fashion show at which home economics students will model garments they have made.

During the afternoon each girl will have an opportunity to attend two sessions of her choice in such specializations as textiles and clothing, food, nutrition and food service management, related art, household equipment, education, home management and family living.

High school girls interested in attending Home Economics Day who have not already registered with their home economics teachers may send registrations to Mrs. Gloria Williams, School of Home Economics, University of Minnesota, St. Paul 1, by April 13.

Student chairmen working on plans for the event are Bernadine Hoeft, Lake City; Jean Suhr, De Kalb, Ill.; Patricia Hornseth, Thief River Falls; Sandra Anderson, 5257 - 42nd Ave. S.; Judith McComb, 327 Minnehaha Parkway, and Marilyn Van Gelder, 4841 Woodlawn Blvd., Minneapolis; Elizabeth Peterson, Almelund; Virginia Lang, Wauwatosa, Wis.; and Karin Nelson, Stanton.

Home economics staff members serving as advisers are Mrs. Williams, Juliette Myren, Mrs. Marie Christenson and Kathleen Jeary.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 9, 1963

2nd in a series  
on Rural Area  
Development

To all counties

Immediate release

RURAL AREAS DEVELOPMENT  
OFFERS BROAD APPROACH  
TO COMMUNITY PROBLEMS

Rural Areas Development is a concept which you may hear much more about around Minnesota in the months and years ahead.

Actually, the organizational seed from which Rural Areas Development must grow has germinated in many parts of the state, growing rapidly toward maturity in some areas.

About 60 of Minnesota's 87 counties have initiated the organizational activity which forms the basis for Rural Areas Development. Furthermore, 85 counties have Technical Action Panels made up of agencies which provide assistance to the development associations.

Rural Areas Development is a broadly-based method for diagnosing rural ailments and developing a thorough understanding among local people who may then prescribe measures to improve the social and economic health of rural areas.

This effort is basically a local responsibility, with national, state and other agencies cooperating to provide advice and resources as a basis for analyzing, revising, projecting and building long-range development programs.

In its broadest form, Rural Areas Development (RAD) is a program of total economic and social development of an area. It is not confined to just agriculture or agriculturally-related enterprises and activity. It is instead concerned with the total problems of rural communities, whether these problems be those of drug store owners, schools, health services, factories, dairy farmers or road repair.

In following the Rural Areas Development approach, local people:

- \* Analyze their problems and develop a willingness to work together to meet them;

add 1 - rural areas development

- \* Make an inventory of natural, human and industrial resources which might be used to solve those problems;
- \* Establish objectives or goals and develop plans to reach these goals;  
and
- \* Put these plans to work, evaluating them continually to see if alternative plans might be preferable.

Rural Areas Development brings to bear on local problems the combined efforts of local people and their organizations and a wide variety of public agencies and private concerns. One agency involved is the University of Minnesota Agricultural Extension Service, which is responsible for organizational leadership and maintenance and for assistance in helping local people inventory their resources and implement plans which are developed.

There is no narrowly-defined procedure which a county must follow in setting up a Rural Areas Development organization. The specific approach which a given county uses is determined by local people in light of their own analysis of the situation.

One point to keep clear is the relationship between local Rural Areas Development associations (RAD) and the Area Redevelopment Association committees (ARA). The RAD groups represent the total community approach and the ARA committees--whose membership may or may not overlap with the RAD organization--have the specific function of serving as a vehicle for assisting local persons or groups in allowing financial support for local projects under the Federal Area Redevelopment Act.

Not all counties have ARA committees; they exist only in counties which are designated as having a specified level of unemployment. There are now 20 such counties in Minnesota.

At the national level, responsibility for coordination of Rural Areas Development rests with the U. S. Department of Agriculture, whereas the Area Redevelopment Administration is in the U. S. Department of Commerce. There is, however, cooperation between these two activities at different levels.

# # # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 9, 1963

To all counties  
ATT: HOME AGENTS  
Immediate release

ATTITUDE CAN  
CAUSE FATIGUE

Dog-tired after doing housework? The physical energy you expend may be responsible -- or your mental attitude may be a contributing factor.

Recent studies show that homemakers who feel that housework is drudgery and a thankless job will find the work exhausting -- a case of emotionally induced fatigue. On the other hand, women who view homemaking as a labor of love for the family gain satisfaction and a feeling of creativity from providing for their needs.

"We hamper our work capacities tremendously by frustrations, irritations and impatience, all of which consume three to four times the energy that actually doing the work would take," says Mary Frances Lamison, state home economics agent at the University of Minnesota.

Inability to make decisions or to take action also consumes added time and energy that could well be spent in getting the job done with less wear and tear. Every time you replace inaction, frustration or irritation with action, you grow in ability to make decisions, in self respect and pride of accomplishment. Instead of needlessly burning energy through frustrations, find the situations that can be remedied and learn to accept what cannot be changed, Miss Lamison urges.

Worry can poison all forms of energy if it is uncontrolled. Learning to control this enemy is a step to self-mastery as well as to wise use of energy, according to Miss Lamison.

Like everyone else, you have limited energy and great demands on it. That's why it's important to have clear-cut concepts of what is most important for yourself and the family and to spend your energy to achieve those goals with as much caution as you spend the family budget.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 9, 1963

To all counties  
4-H NEWS  
Immediate release

NEW AWARDS  
PROGRAM IN 4-H  
FOOD PROJECT

New support for 4-H'ers interested in food preservation begins this year through a special program planned for Minnesota, Marian Larson, assistant state 4-H Club leader at the University of Minnesota, has announced.

Ball Brothers Co., Inc., Muncie, Indiana, is supporting the program on a trial basis in Minnesota this year, before considering nationwide support of 4-H work.

Two \$300 scholarships will be awarded in the state to the two top-ranking 4-H members selected from county winners. A merchandise award will be presented to the 4-H'er in each county who has an outstanding record in food preservation. The record should show evidence of utilizing home-preserved foods in planning, preparing and serving varied, well balanced meals, Miss Larson adds.

A purpose of the new awards program is to relate food preservation more closely to meal planning and preparation. The program seeks to promote more varied, well balanced diets and to show 4-H'ers how it is possible to reduce cash expenditures for food by the use of home-preserved foods, Miss Larson says.

Eligible for the awards are 4-H'ers enrolled in food preservation or those in other foods projects who are interested in food preservation.

-kmr-

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 9, 1963

To all counties  
Immediate release

C O L U M N F I L L E R S

Participation in the Feed Grain Program helps predict how farmers feel about other kinds of national farm policy, a recent study shows. For example, the participant is more likely to prefer support prices for corn and hogs, compared to the nonparticipant and is less likely to desire a "free market" for those commodities. This finding is from a survey of farm operators in southern Minnesota counties, conducted by James L. App, extension economist, and W. B. Sundquist, U. S. Department of Agriculture economist at the University of Minnesota.

\* \* \* \*

Seed treatment generally pays off for commercial vegetables. Even though most of this seed is from dry, western areas, infection is still a possibility, according to Herbert Johnson, extension plant pathologist at the University of Minnesota. His recommendations: Hot water treatment for cabbage, broccoli, carrots, rutabagas, turnips and tomatoes; soak treatment in mercuric chloride solution for cucumbers, squash, melons, pumpkins and peppers.

\* \* \* \*

Smoke and flames ruined about \$2.8 million worth of farm property and products in Minnesota during 1962. The figure showed little change from recent years, according to Glenn Prickett, extension safety specialist at the University. The losses involved 580 different farm fires which, besides financial damage, caused 18 deaths. Fires in barns continued to be the most common single type of fire, accounting for 232 of the total.

\* \* \* \*

Resorts in Minnesota draw the bulk of their clientele from relatively nearby areas, according to a 1958 survey. About 500 miles is the average distance from home traveled by Minnesota resort and tourist customers. Many of these people come from Minnesota cities and from population centers in Illinois and Iowa. The three major vacation activities in Minnesota are resting, fishing, and sight-seeing, the research indicates.

# # # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 9, 1963

To all counties  
Immediate release

SPLITBOOT DEVICE  
FOR FERTILIZER  
HURTS PROFITS

Modern fertilizer and out-dated application equipment don't make a very happy couple.

The once-popular "splitboot" fertilizing attachment on corn and soybean planters can cut corn yields by as much as 20 bushels per acre--compared to a band placement device that puts fertilizer about 2 inches below and 2 inches to one side of the seed.

The splitboot attachment puts seed and fertilizer either together or next to each other--so close either way that fertilizer injury may occur.

These findings come from recent studies by Paul Burson, soils researcher at the University of Minnesota. He compared both kinds of applicators using different kinds of fertilizer on corn and soybeans.

In a trial at the Rosemount Agricultural Experiment station, straight diammonium phosphate (18-46-0 in analysis) seriously damaged corn germination when applied through a splitboot. With a band applicator, there was no damage.

As an example: Where Burson applied 200 pounds per acre using a splitboot, 8,700 plants grew per acre. With the band attachment, plant count was about 17,000 per acre. About 18,000 kernels had been planted in each case; a mortality of about 10 or 15 percent is normal regardless of fertilizer use.

Burson repeated the trials with other fertilizers. Corn yields following 40 pounds of potash starter applied with a splitboot were down about 3 bushels from the no-fertilizer plots, compared with a 14.5 bushel increase where the band applicator was used.

When Burson averaged across all fertilizers, he found that yields following band application were about 20 bushels per acre above those involving the splitboot. He found that both nitrogen and potash injure germination when high amounts come in direct contact with the seed. Phosphorus is less harmful, but the splitboot still limits the amount that may be applied.

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Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 9, 1963

1st in a series  
in Rural Areas  
Development

To all counties

Immediate release

THREE COMMUNITIES  
ILLUSTRATE PROBLEMS  
OF RURAL MINNESOTA

The names may be strange: Bakerstown, Shelbyville, and Valley View, Minnesota.

But what's happening in these places with fictitious names may seem hauntingly familiar and symptomatic of Minnesota's rural trends.

All three communities have fewer than 1,000 residents and all are located in areas where agriculture is still important or was so in times past. The main difference is that Bakerstown is almost completely stagnant, Shelbyville is slipping badly and Valley View is growing.

Let's look first at Bakerstown--a community of about 800 persons whose total population is practically identical to that of 1940 and 1950. Drive down Main Street and you'll see a grocery and general variety store, a couple of filling stations and a few other shops with weatherbeaten fronts.

The biggest businesses in Bakerstown are the creamery and local school, and chances for business development are dim. A greater question is whether business places there will stay. Most of them depend on serving local people, but family income in the county is well under \$4,000 per year, compared to nearly \$6,000 for the state.

In Shelbyville, the answers are already forthcoming. This community has seen its population drop from over 500 in 1950 to under 400 now--nearly 25 percent down. And this is no area of "poor" agriculture; about half the men in the county where Shelbyville is located are employed on farms, the farms average more than 200 acres in size and crop yields and livestock production efficiency are at or above state average levels.

add 1 - communities illustrate problems

Valley View, on the other hand, has seen its population climb from around 600 in 1940 to nearly 700 in 1950 and to more than 800 now. Like Shelbyville and Bakerstown, Valley View is not a big city suburb. It is, however, in an area of declining agriculture and the important thing is that local residents many years ago started community planning that would help aid rural adjustment.

Around both Bakerstown and Shelbyville, you'll find some people who may be concerned about the future; others are apparently content as things are.

Still others from Shelbyville and Bakerstown have long since left for other population centers. A place just 30 miles from Shelbyville that wasn't much bigger than Shelbyville itself 20 years ago has been growing markedly.

Average education in both counties is under 9 years of schooling for persons over 25--indicating that people who are staying tend to be those with less than high school education.

In spite of the standing-still nature of Bakerstown and the dying of Shelbyville, both will see change--whether they wish to or not. Some adjustment is needed but so far local leadership has failed to appear in strength sufficient to direct either community toward analysis and solution of its problems.

Neither Bakerstown nor Shelbyville have come under the systematic study of local Rural Areas Development associations--sometimes referred to as "RAD" groups. Valley View is in a county where such activity exists, but the planning that moved the community started long ago.

Rural Areas Development is basically a local responsibility, with national, state and other agencies cooperating to provide advice and resources as a basis for analyzing, revising, projecting, and building long-range development programs.

But before spelling out the nature of Rural Areas Development, let us return to the problems with which it is intended to deal. An extension sociologist at the University of Minnesota, George Donohue, discusses three aspects of social change in Minnesota--population, rural communities and balance of power.

add 2 - communities illustrate problems

Population. Minnesota now has about  $3\frac{1}{2}$  million people, of which  $1\frac{1}{4}$  million are rural farm and nonfarm people. Minnesota's population showed a 14.5 percent growth from 1950-60, compared to 18.5 percent for the entire nation. Population in urban areas increased nearly 31 percent, while the total rural population dropped nearly 5. Among the state's 87 counties, 49 decreased in total population.

By 1970, the total population in Minnesota is expected to be about 4 million and by 1980,  $4\frac{1}{2}$  million. At the same time, farm population is expected to drop from 17.2 percent of the total to between 10 and 15 percent.

Rural Communities. In the early years of Minnesota's development, farming was largely on a subsistence basis, with the community providing retail goods and services not available on the farm itself. As farming changed to production of goods for sale, communities became more complex and farm and nonfarm people more diverse in interests. As Donohue puts it, the "team haul community" is a thing of the past; the pressing need now is for a welding together of the diversity of interests in rural areas.

Level of income in rural areas is about half that of urban areas, the rate of under-employment in agriculture is equivalent to that in urban areas or even greater, and agriculture is the only basic industry expected to have a decrease in employment in the foreseeable future. These factors make it clear that the rural community faces a pressing need for further and continued adjustment in years ahead.

What are the prospects for the rural community? Donohue says that as the sheer subsistence farm has given way to the mechanized commercial farm, so will the simple service community give way to the larger and more complex service community. Such transitions will mean social and economic costs to individual communities just as the transition in farming has resulted in such costs to individual farm units.

add 3 - communities illustrate problems

Barring such changes as limits on size of farm and nonfarm enterprises, subsidizing decentralization of industry or limiting migration, Donohue foresees the following outlook for rural communities:

Places with 1,000 or fewer people have little or no chance for survival during the next quarter century. For those with 1,000 to 2,500, chances for survival are about three in ten. Communities in the 2,500 to 5,000 range have a relatively good chance to survive if they happen to be the largest trade center in a sparsely-populated county.

Survival possibilities are good for communities over 5,000 in population and those with 10,000 or more will continue to grow and become more complex service centers.

Many communities in each population category will continue to exist in a state of relative stagnation or decline, according to Donohue. He compares them to the farmer who lives off the capital he has invested in his farm over a life time, but is not making additional investments to increase its efficiency and keep abreast of social and economic change.

Balance of Power. In numbers of people, rural areas are facing a decrease as compared to urban areas. This trend is likely to be accelerated in the next quarter of a century, Donohue says. In financial, physical, and human resources, rural areas are no better off. Percentage of total gross national product attributable to farming makes up a minor portion.

Land-use projections indicate that by 1980 we will need 50 million fewer acres for food production than in 1959; therefore, land for food production cannot be considered a scarce resource in the near future.

In organization lies perhaps the most important element of rural social power. Donohue points out that a majority group with many resources may hold a high level of power in spite of disorganization or ineffective organization. In the early days, commonality of interest among farmers and their intimacy of

add 4 - communities illustrate problems

contacts, and the lack of competing groups left social power in the hands of rural people. Today however, rural people are in the minority and representation of agriculture in state and national governmental structures is being increasingly challenged. As population shifts lead to reapportionment, re-districting, or both, rural representation (largely over-representation) is challenged with increased vigor. "Rural people," Donohue emphasizes, "must abandon their traditional dependence upon over-representation politically as a source of organizational effectiveness. They must in the future bargain from the position of a minority group and a minority group to be effective must have an efficient organizational structure."

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Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
April 10, 1963

Immediate release

### SPRAY PEONIES SOON FOR DISEASE CONTROL

The time to head off attack of fungi on peonies is just after the shoots come up in the spring.

Herbert Johnson, extension plant pathologist at the University of Minnesota, says that three different fungi attack stems, leaves, buds and flowers of peonies. The infections often start soon after the shoots appear and look like water-soaked areas. The Botrytis fungus produces spores which show up as a gray or brown fluffy mass on the infected tissue.

First step to controlling fungus, Johnson says, is to remove the last year's growth if it wasn't done last fall.

A fungicide spray is most effective. First application should be when the shoots are from 2 to 4 inches high. Another application should be when the shoots are from 10 to 12 inches tall. If the disease still persists, additional sprayings may be needed. Don't spray after buds start to open.

Captan, ferbam, maneb and zineb are all suitable for peony disease control. A half teaspoonful of household detergent per gallon of spray will improve the wetting qualities of the spray and insure better coverage of the plant surfaces.

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63-116-vln

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
April 10, 1963

Immediate release with mat

**CUTLINE:** L. to r.: Sally Souther, St. Paul; Thomas Hovde, Hanska; Nancy Glas, Hutchinson and Robert Gehrman, Minneapolis, have been selected delegates from Minnesota to the National 4-H Conference in Washington, D. C., this month.

#### FOUR MINNESOTA 4-H'ERS TO NATIONAL CONFERENCE

Four Minnesota 4-H'ers will represent some 53,000 fellow club members at the 1963 National 4-H Club Conference in the National 4-H Center in Washington, D. C., April 20-26.

Attending the conference will be Sally Souther, 18, 2200 Hoyt Ave. W., St. Paul; Thomas Hovde, 19, Hanska; Nancy Glas, 18, Hutchinson; and Robert Gehrman, 18, 12720 Wayzata Blvd., Minneapolis. They were awarded the trips for 4-H achievements and leadership. The Minnesota Bankers' Association is sponsoring the trips. Leonard Harkness, state 4-H Club leader at the University of Minnesota, will accompany the group to Washington.

Citizenship theme of the 33rd National 4-H Conference is "Our Heritage-- Foundation for the Future." Programs will give special attention to the constitutional system of government and will give delegates a clearer understanding of the workings of the federal government. A major event is the all-conference breakfast for delegates and leaders with congressional delegations from their states on Tuesday morning, April 23.

The four Minnesota delegates are all active junior leaders and have held offices in their local clubs. They are all students in the College of Agriculture, Forestry and Home Economics at the University of Minnesota.

Miss Souther has been a member of the St. Anthony Flyers 4-H Club for eight years. In 1961 she was awarded a trip to the National 4-H Club Congress in Chicago as state winner in girls' home economics projects. The same year she received the Ramsey County leadership trophy to the outstanding junior leader. In addition to awards in individual projects, she has won the Key Award for leadership and achievement and the T. A. Erickson leadership award. (more)

add 1 -- 4-H'ers to National Conference

Last year Hovde was one of two delegates selected from Minnesota to attend the American Youth Foundation Leadership Training Camp in Shelby, Mich. He has taken part in the Maryland-Minnesota exchange program, has represented Brown County at the State 4-H Health camp and has won numerous championship awards in livestock exhibitions. In 1961 he received the state Star Farmer degree and the same year was given the top 4-H livestock award in Brown County. He has been a member of the Albin Go-Getters 4-H Club for 10 years.

Miss Glas won a trip to the National 4-H Club Congress in Chicago in 1961 as state winner in home improvement. She has been awarded five county medals for her achievements in home economics projects and has received numerous championships for demonstrations at the McLeod County fair. This past year she was president of the McLeod County 4-H Council. She has been a member of the Lynn Hustlers 4-H Club for eight years.

Like Miss Glas, Gehrman has been president of the 4-H Council in his county. In 1961 he won a trip to the National 4-H Club Congress as state winner in home yard improvement. That year he received the Hennepin County leadership and achievement medals and was grand champion county demonstrator. He has been a member of the Wayzata Livewires 4-H Club for nine years.

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63-117-jbn

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 16, 1963

To all counties  
Immediate release

15-ACRE GROWERS  
MAY BE KEY  
TO WHEAT VOTE

Who will determine the outcome of the 1963 wheat referendum in Minnesota?

And how will that outcome--whichever it may be--affect the pattern of state wheat production?

Extension economists Paul Hasbargen and Wayne Wiseman at the University of Minnesota say that the outcome may well be determined by growers with 15 acres or less. In 1961, farmers with these small allotments accounted for about 80 percent of all farms with allotments in Minnesota.

These 15-acre growers had only 17 percent of the total state allotment but planted more than 40 percent of the acreage.

The distribution of state wheat production means that growers in southern Minnesota (where many of those with small allotments are located) can have as much influence on the final vote as growers in the heavier wheat-producing area of the Northwest. The question, however, is the extent to which the small allotment growers vote in the referendum.

Future changes in wheat production patterns will depend primarily upon the referendum and subsequent legislation, according to Hasbargen and Wiseman. They say that if the proposed plan is voted down and if subsequent legislation does not prohibit acreage expansion on individual farms, wheat acreage will decrease in southern Minnesota and increase in the northwest and west-central parts of the state.

The reason for that prediction is that lower priced wheat could no longer compete successfully with corn and soybeans, say Hasbargen and Wiseman. However, depending on final price relationships, wheat would probably still compete favorably with other grains in the Northwest.

add 1 wheat

If the referendum carries, the economists say, further shifts in wheat acreage will be minor. There will be a mandatory reduction of about 10 percent in all areas.

In either case, present legislation stipulates that the 15-acre exemption clause will be dropped in 1964. That, the economists say, will discourage any further increase in number of Minnesota wheat growers.

Hasbargen and Wiseman urge a careful study of alternatives involved in the referendum. To be eligible to vote in the 1963 referendum, all wheat growers with allotments of 15-acres or less must declare their intentions to participate before May 14th. If they wish to declare themselves as wheat producers, thereby becoming eligible for price supports and the privilege of voting, they must sign their allotment notice (MQ-24) and get it to the county ASC office by May 13th.

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Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 16, 1963

To all counties  
ATT: HOME AGENTS  
Immediate release

MAKE THE MOST  
OF INDIVIDUAL  
WORK CAPACITY

Don't blame yourself if you can't get as much work done as your neighbor.

Since people vary greatly in the amount of physical, mental and nervous energy they have, it is important to understand your own work capacity, points out Mary Frances Lamison, state home economics agent at the University of Minnesota. Plan to take advantage of the time of high energy to get the bulk of your housework done, she suggests to homemakers. For example, whether you work best in the early morning or in the evening, make the best possible use of that time without feeling guilty because you don't conform to the work pattern of your neighbors.

Once you recognize your energy capacity, accept the challenge of finding more efficient ways of working and of making every piece of work a satisfying experience. Here are some suggestions from Miss Lamison for more efficient use of energy:

- Have a common understanding of what the family wants out of life; then eliminate whatever does not lead to those goals.
- Organize work to be done in daily, weekly, monthly and occasional schedules, and integrate some jobs from each schedule into each day's tasks so that no one day is heavily loaded with housekeeping.
- When you buy furnishings and equipment for the home, choose only those things you will really want to keep clean and care for as the manufacturer has recommended. This rule will save time, money and energy.
- Work at a speed best suited to your individual capacity and let other family members do the same.
- Do disliked jobs early in the work period, leaving the more enjoyable ones for times when you have less energy.
- Develop skill in tasks to be done. Learn how others proceed with their housework; they may have some good management techniques.
- Use thigh and leg muscles rather than back muscles when lifting.
- Learn to dovetail as many jobs as possible. For example, cook breakfast cereal in top of the double boiler and hard-cook eggs in the bottom for lunches.
- Take frequent rest periods--preferably 10 minutes out of each hour to relax.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 16, 1963

To all counties

4-H NEWS

Immediate release

BE AN ARTIST --  
USE YOUR LAWN  
FOR A CANVAS

You can be an artist without using a canvas: just apply the characteristics of design to your flower garden.

C. Gustav Hard, extension horticulturist at the University of Minnesota, says this is as easy as it sounds if you make a plan of your garden first.

Form, color and texture are the characteristics of plants. Use them to develop pleasing expressions when landscaping your home yard.

Part of the beauty of a landscape scene comes from the form of the plants in the border and the resulting forms when the plants are grouped together. Horizontal forms tend to produce quiet, restful effects. Sweet william, peony, shasta daisy and phlox help develop a horizontal line. Foxglove, lythrum, hollyhock and delphinium are typically vertical-line plants. They create an uplifting effect. Perennial planting is made up largely of horizontal-line plants, broken with vertical-line plants to lend variety. Hard advises 4-H gardeners and others to create distinct forms that can be repeated and add contrasting forms which can lend variety and interest.

Color is probably the most obvious characteristic of a flower garden. But have you thought about the different emotional effects color can produce? Orange and scarlet are stimulating colors that readily attract attention and are usually seen in flowers in full sunlight, while greens, blues and whites are quiet, restful colors found in shady places. The warm effect of yellow is evident in the chilly spring and fall seasons. Use rich, intense colors sparingly, but use light, dilute colors more often. White is a neutralizer for all other colors in the garden. Plan to have only two or three predominant colors in bloom at one time in your border.

Texture can give added interest to the flower border during the times in the year when there is little flowering. The size and arrangement of leaves and branches help determine the texture of a plant. Harmony in texture tends to produce unity of effect. So don't mix large-leaved, coarse-branched plants with small-leaved or fine-twigged plants.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 16, 1963

To all counties  
Immediate release

GRASS AND FOREST FIRES  
ARE GREAT HAZARD  
DURING NUCLEAR ATTACK

Those grass and forest fires around Minnesota this time of year are a small sample of what might happen in a nuclear attack.

Wide areas of "scorched earth" could be one major result of a nuclear explosion, according to Clifton Halsey, rural civil defense agent for the Minnesota Agricultural Extension Service.

A 20-megaton explosion could ignite dry grass within 40 miles of "ground zero," or the center of the explosion, Halsey says.

He points out that the potential hazard from nuclear explosions has been studied in a number of extensive tests conducted by the U. S. Government. The degree of hazard depends on burning conditions and the size and altitude of the explosion.

Initial heat from a blast would last only a few seconds, and tests have shown that only the more flammable materials continue to burn after the initial explosion. Such materials include lightweight fabrics, dried grass and leaves, newspapers and dry, rotted wood.

Wood more than a half-inch thick, plastics and heavy fabrics usually char but do not continue to burn after the initial heat has dissipated.

Halsey says that in an all-out nuclear attack, the resulting fire hazard would involve about five to seven percent of the land. Military, industrial, population and government centers may be nuclear targets.

Nuclear bombs, however, can fall anywhere. In rural areas, the wild fire danger exists primarily when vegetation is dry. Green crops and trees greatly reduce the hazard.

add 1 fire hazard

The basic rules for protection against fires from nuclear attacks are much the same as those for any fire. Clean homes and farmsteads, well painted buildings, fire breaks, and fire fighting equipment all lessen the danger.

Good local organization for fire fighting is also important, Halsey says. Many fires may start simultaneously and local help may not be enough. Help from unaffected areas farther away would be needed. Within an hour radioactive fall-out would present a grave threat to people outdoors in the fire area.

Halsey advises rural people to discuss these matters with their local government, their fire wardens and the Minnesota Forest Service. According to Presidential order, the USDA Forest Service coordinates rural fire control in cooperation with other local, state and federal agencies.

For more information on controlling fires by nuclear explosions, check with your county extension agent, Halsey advises. You may ask him for one or both of two publications: USDA Bulletin PA-517, Rural Fire Defense, or for Rural CD Tip Sheet No. 8, Fires Caused by Nuclear Explosions.

## ##

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 16, 1963

To all counties

Immediate release

3rd in a series on  
Rural Areas Development

Kittson County  
Takes Close Look  
At Community Problems

They don't claim to have all the answers, but people of Kittson county are better able to tell you today what their problems are.

They're in this position because they are taking a new approach to an old principle--getting the entire county working together. One result is a publication called "A Study of Kittson County Resources and its People."

Kittson county is in the extreme northwest corner of Minnesota, bordering on both North Dakota and Canada.

In more general terms, this publication is an Overall Economic and Social Development Study of the type being written or already in use in a number of Minnesota counties. This report is part of the intensive effort these counties are making in Rural Areas Development, an approach to better use of the total human and economic resources of communities.

What is the Kittson county report? A recommendation for "more industry?" While the report certainly considers commercial development, it does far more. The 89 persons involved in gathering material for it saw to that. They did their information digging and homework to come up with analyses and recommendations in areas such as:

- \* Community Improvement and public affairs.
- \* Agricultural production; conservation, and use and development of natural resources; management on the farm and in the home.
- \* Family living; youth development.
- \* Leadership development; marketing, distribution and utilization of farm products.

add 1 Kittson County

If that isn't indication enough of the broad scope of the report, note what the report says about community development and public affairs:

"The towns in Kittson county (St. Vincent, Humboldt, Northcote, Hallock, Kennedy, Karlstand, Donaldson, Lake Bronson, Halma, Lancaster and Orleans) were initially built and settled to serve agriculture...The need for certain services has diminished...While every community cannot have a glove factory and the local barber cannot continue indefinitely to serve department store workers, we must recall that one dollar of new wealth produced on farms, from industry or from natural resources turns over several times before leaving an area.

"In the future, the towns of Kittson county will have more difficulty in competing for business...Small towns must analyze their business potentials for the future, on a county-wide basis. There is also a need for more cooperation among all farm and nonfarm groups."

What does a community foresee for its future in face of declining population? Says the Kittson county report: "With improved roads and transportation, additional consolidation of schools, churches, and shopping centers may occur. Developments in consolidation and regrouping of certain community services could be an important undertaking. Results could be improved community services commensurate with taxes paid."

Kittson county has seen its population drop from 10, 717 in 1940 to 8,343 in 1960. Farming is the dominant occupation, but the number employed in agriculture, forestry and fisheries has dropped from 2,363 to 1,176 in the 20-year period. The report thoughtfully considers this problem:

"Farming trends will influence the future of our communities. Adjustments have been made by farmers, but more are needed...Increased mobility of our people means changes in buying habits, types of services and recreation demanded, competition between communities, need for churches, high schools, and hospitals and in the percentage of your people remaining in their home communities after high school."

add 2 Kittson County

The report continues: "Opportunities resulting from geographical location need to be reviewed. Could we exchange more goods and services, and could we develop more interrelated services, such as machine construction, assembling depots, and special border effect services?" The report then suggests certain products that could be manufactured in Kittson county and marketed in specific urban centers.

Among the report's recommendations for the farm business are: continuing educational work in land use, conservation, and more efficient cropping practices; programs to improve returns from livestock enterprises; assistance to farmers in planning profitable farm organization programs.

What about the family? The report has plenty to say here, too: "Families must make adjustments in view of these trends: the prevailing authority in the home is shifting; opportunities for women to work outside the home are more inviting; young people are maturing earlier; and people have more leisure time... We believe it is too late to wait until problems become acute to bring answers to responsible parents and children...Professional people trained to give family guidance are often sought out only when there are problems, and not when the child is in development."

Many of the recommendations in family living pertain to education. Among them are these: Sponsor programs to educate the general public to view mental problems the same as other illness. Seek expert guidance in dealing with the current trend to early marriage--but accept the trend as a problem of our times. Develop recreation and hobby activities for senior citizens. Stress the need for use of health services. Urge parents and children to plan more activities together.

Furthermore, the report takes a searching look at youth problems--emphasizing the need for specialized training, career counseling, training in social relationships, development of youth recreation centers.

add 2 Kittson County

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add 3 Kittson County

The report was prepared by the Kittson County Planning Committees in cooperation with the County Extension Committee--with a total of 89 persons involved. And they don't consider their work an end in itself. "Planning," say the report's foreward, "is a never-ending task. Changes become necessary as changes occur in technology, markets, and needs of the people."

The county now has a local Development Association, organized to carry forth the work proposed in the OESDP.

###

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 16, 1963

To all counties  
Immediate release

C O L U M N F I L L E R S

Farming a matter of probability? Where certain temperature levels are concerned, yes. Since nobody knows for certain whether the mercury will stay above the 32-degree level after the spring crop is in, the grower is risking a certain probability of killing frost. Now, however, there is more definite data to go on; a new publication from the University of Minnesota, "Climate of Minnesota," gives probabilities for 8 temperature levels in 75 different state areas for the growing season.

From tables in the publication, you can determine, say, the probability that temperature will be 32 or lower after a given date. Example: In Montevideo, chances are 60 percent that temperatures will reach 32 or lower on or after May 5.

\* \* \*

Minnesota's Extra-Profit Corn Contest has some new provisions for 1963, according to Curtis Overdahl, extension soils specialist at the University and supervisor of the contest. This year, contest plots will be harvested by machine and weighed on an approved elevator scale after shelling, on a 15.5 percent moisture basis. In the past, harvesting was done by hand. Also, each contestant must enter a field of no less than 6 acres and the contest will have only one division--net return. County agents have further details.

\* \* \*

Spring may be welcomed by both cows and dairymen, but it raises danger signals for milk quality. According to V. S. Packard, extension specialist in dairy products at the University, you'll get a five-fold increase in bacteria if you keep milk for 12 hours at 50 degrees temperature, compared to 40 degrees. The bacteria increase in 12 hours is 15 times greater at 60 and 700 times at 70 degrees. So low-temperature milk storage is critical to quality.

\* \* \*

Most effective safeguard against the danger of misuse of farm chemicals is to follow the manufacturers' directions for their use. Glenn Prickett, extension safety specialist at the University of Minnesota, says that such chemicals come with explicit instruction on mixing, use, storage and other safety information.

# # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
April 16, 1963

Immediate release

## CAUSES ARE FOUND FOR POTATO SCAB

Appearance is mighty important these days.

That's true whether you are a person or a potato.

Producers who grow potatoes for the grocery market know that potato appearance is just another quality factor which can add up to improved sales and higher profits.

And for years they have had to contend with the skin disfigurements of various kinds of potato scab.

Plant pathologists at the University of Minnesota may have made the important break-through in eliminating or controlling these plant diseases when they isolated the causative organism for potato russet scab. This is a small scurf or scab that mottles the skin of the infected potato and detracts from its appearance. Researchers also found that the causative agent for this disease was distinctly different from the one that causes common potato scab. This disease is marked by larger skin irregularities.

Carl J. Eide and Monty D. Harrison, plant pathologists, learned that the russet scab is caused by a species of *Streptomyces*, a bacterium which closely resembles a fungus.

It sounds simple to say, but it took three years of painstaking work to accomplish that.

The work of the researchers was complicated by the fact that they didn't know for sure that the russet scab was caused by a micro-organism and if it were, which was the villain of the many found on the skin of the underground potato tuber.

(more)

add 1 -- russet scab

Dozens of micro-organisms were isolated but when they were inoculated back into otherwise sterile soil and potatoes were grown in it, the russet scab did not develop. Finally, however, a micro-organism was found that produced the russet scab when inoculated into the soil.

Researchers also found that the scab developed most abundantly in periods when soil temperatures were above 73 degrees and where soil moisture was above 60 percent. This is one of the reasons the russet scab varies in severity from year to year in the Red River Valley.

It also was found that few potato varieties have any resistance to the russet scab.

Eide says additional research is being conducted with financial help from the State Department of Agriculture.

One aspect of future study is to learn how long the russet scab organism will live when potatoes are not planted in the ground. Findings may point to a method of control by crop rotation or other cultural methods. Efforts also will be made to develop potatoes which are resistant to russet scab.

###

63-120-vln

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
April 16, 1963

Immediate release

## FARM MISHAPS KILLED 132 LAST YEAR

Farm accidents killed 132 Minnesotans last year and injured hundreds more, according to Glenn Prickett, extension safety specialist at the University of Minnesota.

He points out that farm machinery, falls, fires and explosions, drowning and suffocation were big killers.

A total of 37 persons died as a result of machinery accidents and not all of these were in the conduct of farming operations. Seven of the killings by machinery were around the house and farmstead.

Thirty-two persons were killed in farm falls last year.

"These accidents happen when people use makeshift platforms to stand on when painting or from not taking proper safety precautions when working on roofs, in hay mows and similar off-the-ground spots."

Fires and explosions killed 18 farm residents last year. Prickett noted that most of these accidents occurred around the home and farmstead.

Drowning killed 10 people on farms while nine suffocated from one reason or another. Firearms, blows from falling objects and bites of animals each accounted for five farm deaths.

Prickett points out that the variety of work the farm family does makes it particularly vulnerable to accident. It also makes the farm accident rate higher than that for any other industry.

He says this means that farm folks have to be particularly careful to take safety precautions and should "think safety all the time."

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
April 16, 1963

Immediate release

#### STATE FIREMEN'S SCHOOL SCHEDULED APRIL 22-25

Nearly 400 firemen from all over Minnesota will attend the 12th Annual Minnesota State Fire School at the University of Minnesota Institute of Agriculture April 22-25, according to William C. Freitag, school coordinator and assistant manager of the Fire Underwriters Inspection Bureau, Minneapolis.

The three-day program will feature instruction in fire fighting and fire rescue techniques and the latest information on fire prevention, Freitag says.

Roy Dunlap, managing editor of the St. Paul Pioneer Press, will be speaker at the annual banquet to be held at 5:30 p.m. Monday, April 22, in the Arizona Room of the Prom Center, 1190 University Avenue, St. Paul.

Mayors of the state's municipalities have been invited to attend the "Mayors' Day" session Tuesday, April 23.

Wednesday's sessions will be at the state fair grounds. In addition to demonstrations of fire fighting and new equipment, there will be a display of fire fighting apparatus in the Hippodrome Building.

Registration will be in Coffey Hall on the St. Paul Campus at 7:30 a.m., Monday, April 22. The school is offered through the Department of Agricultural Short Courses at the University in cooperation with state fire fighting and fire insurance underwriting groups.

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63-118-vln

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
April 18, 1963

\*\*\*\*\*  
\*For release Friday, April 19 \*  
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## NEW SPRING BREAD WHEAT RELEASED

A new spring bread wheat has been released by the University of Minnesota Agricultural Experiment Station and the U.S. Department of Agriculture Crops Research Division.

The new selection is named CRIM, after the late Professor Ralph F. Crim who was a long-time extension agronomist at the University and secretary of the Minnesota Crop Improvement Association.

Crim wheat is a selection involving crosses among Klein-Titan, Thatcher, and Kenya 58-Newthatch.

According to E. R. Ausemus, USDA agronomist at the University, Crim wheat has given superior performance in extensive field trials and disease tests in Minnesota and other nearby states. Crim has a type of stem rust resistance different from that carried by other spring wheats.

Between 1960 and 1962, yields of Crim were second to third high among all spring wheats with which it was compared. The selection is moderately susceptible to leaf rust and loose smut and about equal to Lee in straw strength.

Milling and baking characteristics have been found to be satisfactory in experimental trials. In three years of Crop Quality Council cooperative tests, the variety gave acceptable performance although some milling characteristics were not as good as desired.

Seed has been distributed through county committees to registered growers of the Minnesota Crop Improvement Association in west central and northwestern Minnesota. About 900 bushels of foundation seed are being distributed according to Carl Borgeson, seed stocks project leader at the University.

Canada, Iowa, Wisconsin, Michigan, Illinois, North Dakota, South Dakota, and Montana were supplied seed for testing purposes. North and South Dakota also participated in the increase of the variety.

Seed sources of the new variety in Minnesota will be listed in the seed directory of the Minnesota Crop Improvement Association, available about September 1, 1963.

## GROW YOUR OWN HERBS

That subtle blend of herbs that gives a gourmet touch to your cookery can come from your own garden.

Interest in planting small herb gardens is reviving, according to Arthur E. Hutchins and Orrin C. Turnquist, University of Minnesota horticulturists. Herb gardens near the kitchen were once considered essential by many American homemakers. Now some homemakers prefer having containers of herbs in the kitchen; others plant herbs in the flower border or in a section of the vegetable garden.

Many herbs may be planted directly into the garden from seed in early May. These include sweet basil, borage, garden cress (also called pepper grass), water cress, dill, fennel, parsley, sage, summer savory, marjoram and thyme. Plants of chives and horseradish, available at garden centers, may be set into the garden as soon as the soil can be worked. Among the varieties of sweet basil recommended is Dark Opal, an all-America selection last year, especially attractive for salads.

A secret of success in growing herbs is to prepare a fine seedbed before planting, the University horticulturists say. They also caution against planting too much of any herb. Usually one seed packet of an herb is all any family will use. When the plants come up, they should be thinned out so they will be more productive. Plants thinned out may be transplanted to the end of the row or to another location in the garden.

Detailed information on growing and harvesting various herbs in the home garden is given by Hutchins and Turnquist in a newly revised bulletin just published by the University of Minnesota Agricultural Extension Service. Recipes on using herbs are provided by Verna Mikesh, extension nutritionist at the University. The publication, Culinary Herbs, Extension Bulletin 284, is available from the Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul 1, Minn., or from county extension offices.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
April 18, 1963

Immediate release

## BEEF GOOD BUY THIS WEEK

Beef roast, steak and hamburger are good choices for family dinners this week, if you're keeping an eye on the budget.

Beef is being featured at attractive prices at many Minnesota markets, according to Mary Ryan, extension consumer marketing specialist at the University of Minnesota. Larger beef supplies this year should provide about a pound more of beef per person in 1963 than in 1962. These larger supplies are now showing up in Minnesota markets at prices averaging lower than a year ago.

The wise shopper, however, will keep in mind grades, cuts and servings per pound and select the cuts and grades that offer her the most for her dollar, Miss Ryan points out.

This may also be a good time to stock your emergency shelf with canned fruits and vegetables. The large pack from last season has made it possible for many markets to purchase big stocks at lower than average prices and pass the savings on to the consumer. Watch grocery ads for good buys but check the original price before making a purchase to be sure you are getting specials. Here are some average prices you might use as comparisons: pineapple juice, 46-ounce size, 36 cents; sliced pineapple, #2 can, 39 cents; fruit cocktail, #303 can, 25 cents; cream-style corn, #303 can, 18 cents. If specials are advertised at below these average prices, you'll be getting a good buy.

Green peppers and radishes from Florida and carrots from Texas have arrived in large supply and are of good quality. Look for these fresh vegetables to add variety to your menus.

Frozen orange juice can be found in some Twin Cities stores this week for 21 cents a can--a bargain at any time but especially so since the freeze damage in Florida.

Milk, butter and ice cream and other Minnesota dairy products are abundant this spring. Watch your local store for specials, and save money while enjoying good nutrition, Miss Ryan urges.

Flour and coffee continue to sell at below average prices at many markets. Consider flour a good buy when it costs less than 50 cents for 5 pounds.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
April 18, 1963

Immediate release

#### McKERROW SCHOLARSHIP AWARDED TO LAKE ELMO YOUTH

David Pierson, 17, Lake Elmo, has been awarded the McKerrow scholarship, given annually to a Minnesota 4-H'er with a long-time record of achievement in livestock projects.

A graduate of Stillwater High School, the Washington County 4-H member will use his \$300 scholarship at the University of Minnesota when he enters next fall.

The award was announced by Leonard Harkness, state 4-H Club leader at the University of Minnesota, and Al Booren, secretary of the Minnesota Livestock Breeders' Association.

David has been a member of the Gopher Diggers 4-H Club for nine years and during that time has served as president and vice president. He has been an active junior leader for four years.

In the seven years that David has exhibited, he has won blue ribbons on every animal he has shown at county, district, and regional shows. A three-time winner of the Champion Junior Showman award, last year David was named Champion Senior Showman at the Washington County Fair and placed third at the State Fair.

In 1960 David won the American Legion award for outstanding service. A member of the National Honor Society, he recently attended the 3-M recognition day as one of the top three science students at Stillwater. David was also chosen a youth delegate to the Minnesota Association of Cooperatives by Twin City Milk Producers.

David is a junior member in the Holstein-Friesian Association and has served as president and vice president of the Junior Holstein Breeders' Association in Washington County.

A future dairy husbandman, David did laboratory work on non-fat milk solids at the University of Minnesota last year and this year he is working under C.L. Cole, head of dairy husbandry, doing library research on artificial breeding and genetics.

Named for William McKerrow, who for many years was active in Minnesota livestock industry, the scholarship is to be used for the study of agriculture or home economics at the University of Minnesota.

63-124-kmr

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Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
April 18, 1963

Immediate release

## FFA CONVENTION MAY 5-7 ON ST. PAUL CAMPUS

More than 2,400 Minnesota rural boys will attend the 34th annual Minnesota Future Farmers of American Convention and Leadership Training Conference, May 5-7 on the University of Minnesota St. Paul Campus.

Participants will take part in contests, business sessions and tours. Theme of the convention is "Agriculture--Vital to America."

The convention will open with a talent show Sunday evening, May 5 and will end with an awards assembly Tuesday afternoon.

Monday morning will feature judging contests and the first annual Creed Contest. An awards luncheon to honor State Farmers, District Star Farmers and National FFA Foundation Award winners will be Monday noon. Later that day, all judging team members will attend special educational classes, where University faculty members will explain teaching, research and professional opportunities.

The delegates will leave the campus Monday evening to attend the 27th annual convention banquet in the St. Paul Municipal Auditorium. Governor Karl Rolvaag and Duane Leach, Winnebago, Minn., national FFA vice president, will be principal speakers.

Other special features will include the annual hand milking contest between the State Star Dairy Farmer and Minnesota's "Princess Kay of the Milky Way," 9 a.m. Tuesday in front of Coffey Hall.

The state FFA parliamentary procedure contest will be held Tuesday morning and the state FFA public speaking contest Tuesday afternoon. State FFA band and chorus concerts are also slated for Tuesday afternoon, followed by the final awards assembly.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 22, 1963

To all counties  
For immediate use

### C O L U M N F I L L E R S

Get ready to spray your backyard apple trees for insects, cedar apple rust and other diseases. First spraying should be timed for period when blossoms start to open. Mix captan, which will do a good job on scab, with ferbam or zineb, which will handle rust. Add a good insecticide. For details on spraying consult the "Home Fruit Spray Guide," available from county agents.

\* \* \* \*

A new spring bread wheat called CRIM has been released by University of Minnesota Agricultural Experiment Station and USDA. CRIM combines high yield with a resistance to stem rust different from that carried by other spring wheats. It has good milling and baking characteristics, too. Seed has been distributed to registered growers of the Minnesota Crop Improvement Association in west central and north central Minnesota.

\* \* \* \*

Warm spring and summer temperatures mean increased hazards from bacterial growth in milk. Keep milking equipment clean and store the milk at temperatures below 40 degrees. Bacteria count will remain low, regardless of how hot the weather is.

\* \* \* \*

It doesn't always pay to own farm machinery. Sometimes hiring custom farm work can give you the benefits of additional mechanization at lower cost. This is especially true if you don't have a lot of work for some machinery. You can compare costs of custom work against ownership by using a worksheet provided in Extension Pamphlet 134, "Custom Rates for Farm Operation." Ask your county agent for it, or write Bulletin Room, Institute of Agriculture, St. Paul 1.

\* \* \* \*

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 23, 1963

CAMP FOR 4-H  
ADULT LEADERS  
IN JUNE

To selected counties

Immediate release

Adult 4-H leaders in \_\_\_\_\_ county are invited to attend the annual Southern Minnesota Adult Leaders' Camp June 6-7 at Flandrau Group Camp near New Ulm.

Leaders from 34 southern Minnesota counties are expected to participate this year, announces County Agent \_\_\_\_\_.

Educational and recreational sessions during the two-day event will help to prepare adults for more effective leadership and work with their local 4-H groups. Theme of the camp is "Change."

Wayne Hanson, University of Minnesota district county agent supervisor, will give the keynote address on "Change" on the opening morning. Other speakers for the event will be Paul Anderson, director of placement for the University's College of Agriculture, Forestry and Home Economics, who will discuss "How Change is Affecting Careers;" William Milbrath, assistant state 4-H leader, who will talk on "Looking Ahead in 4-H;" and Larry Tande, Steele county assistant agricultural agent, on "Ideas that Work." Bernard V. Beadle, former state 4-H staff member, and Mrs. Beadle will show pictures and talk on their trip around the world.

Workshops and group discussions are planned on a variety of topics, including: planning a challenging club program, use of junior leaders, how change affects leadership roles, high school dropout problems, adult leader selection, food preparation, home improvement-family living and conservation projects. Extension agents will act as workshop leaders.

Adult leaders who attended the Interstate 4-H Volunteer Leaders' Forum in Washington, D.C., will be speakers at the closing banquet.

Richard Angus, Olmsted county assistant agent, is camp chairman.

Information on registration and costs of the camp is available from the county extension office.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 23, 1963

KEEP A "LIVING"  
DIARY WITH  
PHOTOGRAPHS

To all counties  
4-H NEWS  
Immediate release

What better way is there for you to save those fun-filled moments at the beach, on your vacation, visiting friends or even in your own backyard than through pictures?

Pictures can provide an exciting and "alive" diary for you if you think before you take the picture, says Gerald McKay, extension visual aids specialist at the University of Minnesota.

When you take a picture of a building, remember to try to shoot buildings head-on, holding the camera level. Tipping the camera up causes the lines of the building to converge near the top. The edges of the buildings will line up with the edges of the picture if you hold the camera level.

Landscapes are popular vacation pictures, but you can make them more interesting by having people somewhere in the foreground. People will also provide a size comparison. McKay suggests framing your scenic views with tree limbs, arches or other natural frames.

People make any picture more interesting, but try to have them doing something natural, rather than just staring into the camera. Photograph them against an uncluttered background such as the sky, the grass or a plain building so attention is drawn to them, the subject of the picture.

McKay gives these suggestions for vacationing photography fans:

- . DO familiarize yourself with your camera before taking it on your trip.
- . DO buy picture postcards or colored slides of famous landmarks and use your film for other pictures.
- . DO have exposed film processed or developed as soon as possible because exposed film deteriorates quickly.
- . DO keep a notebook while taking pictures to help you identify them when you return home.
- . DO set the lens carefully for beach scenes. The intense light from the water makes it necessary to close the lens more and speed up the shutter speed.
- . DO set the shutter speed faster--100th to 500th of a second--if you are taking pictures from a car, train or plane.
- . DO mount your pictures and label them right after your trip to help you tell the story of your trip to others.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 23, 1963

To all counties  
ATT: HOME AGENTS  
Immediate release

WEIGH NEEDS  
BEFORE BUYING  
MAJOR APPLIANCES

A major appliance may serve your family for as many as 16 years -- or it may not be satisfactory for even six weeks.

The service you get from an appliance depends not only on the care you give it, but also on your care in selecting it. Before getting information or making purchasing decisions, first weigh your family's appliance needs, advises Florence Ehrenkranz, professor of home economics at the University of Minnesota.

She suggests three questions to ask yourself in considering the value of an appliance to your family:

1) Do you need the appliance? Will it be an efficient tool in your home? Will it contribute to more effective housekeeping?

2) If the appliance is not actually needed, what advantages does it offer your family? Will the appliance make your home safer or more enjoyable? Will it give you more space by replacing larger articles? Will it save you energy and thus give you more time to use in other ways?

3) What are the disadvantages of the appliance? Will it add an excessive amount of heat or noise in your home? Will the appliance use space that you do not want to give up? Will it complicate, rather than aid, your present homemaking methods and routines? Would it be better to save the money or to use it for another purpose? Remember, buying an appliance simply because it is "on sale" does not guarantee that it is a wise purchase.

If your answers to 1 and 2 outweigh your answers to 3, you are ready to select your appliance. If disadvantages are greater than needs and advantages, then getting information and evaluating merchandise are unnecessary, Miss Ehrenkranz says.

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Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 23, 1963

To all counties  
Immediate release

GOLDTOP SWEET CLOVER  
AVAILABLE THIS YEAR

Seed of a new sweet clover variety--the best one available for plowing down--is being offered for sale in Minnesota this year.

The variety is Goldtop and some 80,000 pounds will be available in the state in 1963, according to H. L. Thomas, agronomist at the University of Minnesota. Goldtop was put on the University's list of recommended varieties last year.

Developed in Wisconsin, Goldtop is outstanding for seedling vigor, resistant to leaf and stem diseases, has good seed yield and produces good forage yield in both the first and second years. It is a yellow blossom biennial variety.

Goldtop is a few days earlier than Evergreen but much later (by 12 to 13 days) than Madrid sweet clover.

Plowing down and pasturing are the major present-day uses for sweet clover, according to Thomas.

# # # # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 23, 1963

4th in a series on  
Rural Areas Development

To all counties

Immediate release

PENNINGTON COUNTY  
PLANS FOR SOCIAL,  
ECONOMIC GROWTH

Pennington county, Minnesota, has taken an inventory, with one eye on the 21st century and the other on the years between now and then.

It did more than count people, industry and resources. Pennington county subjected its newly-gathered information about itself to an analysis that amounts to a full-scale diagnosis for social and economic problems of the future.

The inventory was handled by hundreds of persons--specifically the some 130 members of the Pennington County Long Range Planning Subcommittees.

This inventory is called an Overall Economic and Social Development Plan (OESDP) for Pennington County, and represents a crucial aspect of Rural Area Development activity. So far, Pennington county is the second Minnesota county to complete such a report (Pine county was first) but within the next year more than a dozen other counties will follow suit.

This OESDP, as it is sometimes called, is intended to help local people identify their needs, problems and opportunities, study their resources, analyze alternative solutions to problems, arrive at courses of action and appraise what they've done.

While it's loaded with tables, the OESDP is far more than a statistical reference. Following each situational study, it includes recommendations from a local committee for action needed.

All told, it's a comprehensive story of what Pennington county is, where it has been and where it might go with concerted action from the total community.

Population-wise, the report states, Pennington dropped from nearly 13,000 persons in 1950 to under 12,500 in 1960. Unemployment increased in the same period from 5.1 percent of the labor force to 8.8. Median family income there in 1960 was \$3,595 per year, compared to \$5,573 for the state.

add 1 Pennington county

For persons over 25, median years of school completed is 9 even, or 1.8 years under the state figure.

Pennington county, the report states, has ample electric power at least in Thief River Falls, the main city there, and a good potential water supply in the Red Lake River. The county has representatives of more than a dozen state and federal agencies. It has good health and medical facilities.

Agriculturally speaking, Pennington county has about 850 farms, but the farm situation is changing sharply. Many farms are currently in the Soil Bank. The major enterprise since 1950 has shifted from dairying to cash grain. Farm value increased 73 percent from 1954-59 and average total sales per farm practically doubled.

These are only a few of the statistics. What did the local people suggest doing?

One might have expected the report to say "Bring in industry!" But what it did was much more. The report stressed the need for a thorough knowledge of the functions of government and the functions of the individual or groups in a community. It also stated the need for knowledge of conduct of business, and for the development of the potential natural and human resources of the county, and for an understanding of group action.

In line with those needs, the OESDP-writers in Pennington county recommended special short courses for training in community development and affairs.

For agriculture, the report recommends assistance in planning farm organization and management, in exploring off-farm employment opportunities, special classes for young farmers and educational programs related to other and broader problems.

For family living, the recommendations again are for continued and increased emphasis on educational programs--on problems of retirement, family dwellings, health and nutrition, consumer buying and homemaking.

add 2 Pennington county

For area youths, the committees recommended professional educational career counseling assistance for programs on early dating, early marriages and parent-children counseling. Furthermore, they recommended a whole new look at existing youth programs, such as 4-H; they recommended new projects for older youth to stimulate achievement of personal objectives.

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Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 23, 1963

To all counties  
Immediate release

SPRINGTIME MEANS  
NEED TO MAINTAIN  
MILK QUALITY

Spring may be a lazy time for some, but to the dairy farmer, it means extra work to maintain milk quality.

Every spring the bacteria count in milk rises. James J. Jezeski, Professor of the Department of Dairy Industry at the University of Minnesota, points out two reasons why.

One reason is failure by the farmer to clean his milking utensils properly when busy with field work. Another is warm weather--making proper cooling essential.

To help you maintain a low bacteria count, Professor Jezeski has several suggestions.

Clean all utensils right after each milking before milk has a chance to dry on the metal. There are three easy steps to follow:

1. Rinse utensils with lukewarm water following milking.
2. Brush the milk cans, buckets, and strainers with warm water containing an all purpose cleaner or detergent.
3. Rinse the utensils with clear hot water and allow them to drain.

In cleaning milking machines, follow the directions of the manufacturer closely. Soak all inflations, tubes, and all other parts in a cleaning solution and brush them.

Professor Jezeski emphasizes that the utensils must be clean before it does any good to sanitize them. Chemical sanitizer on dirty equipment will only aid the buildup of milkstone. Sanitizers are effective on clean equipment to kill any remaining bacteria.

The second area of concern is no problem if you have a properly running bulk tank or can cooler. If your milk is cooled by running well water over the cans, you may have a problem with the advent of warm weather.

add 1 maintain milk quality

Bacterial growth slows down when the temperature of the milk is held below 50 degrees Fahrenheit, and the lower the temperature the less bacterial growth you have occurring.

To cool with well water, you must be sure that the level of the milk is below the level of the water on the outside of the can. If not, the milk which is above the water level will be warmer and more likely to suffer bacterial growth.

Professor Jezeski emphasizes that the extra effort you put forth in maintaining milk quality will mean added profits in your pocket.

# # # # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
April 23, 1963

Immediate release

## KNOW YOUR P'S AND Q'S ABOUT CANNED FOODS

Knowing your p's and q's when you go to buy canned fruits and vegetables will go a long way toward helping you get the best value for your money, both nutrition-wise and budget-wise.

Specials on many canned fruits and vegetables this spring makes this a particularly good time to stock the emergency shelf. But Verna Mikesh, extension nutritionist at the University of Minnesota, points out that in choosing specific fruits and vegetables, homemakers should keep in mind family preferences, how the foods are to be used, food value for the money spent and storage space.

Decide before you buy how you plan to use the canned fruits and vegetables. If you want to serve canned fruit for dessert, you may prefer the fancy pack with a heavy syrup. If the use you're considering is for cobbler or pie, you may want to buy fruit packed in a light syrup or water, since uniformity in shape or color of the slices is then immaterial. For buttered corn, choose the whole kernel style but for soup, the cream style.

Look for a vitamin A and vitamin C bonus in choosing canned foods the family likes, she suggests. For example, orange juice, canned grapefruit segments, and grapefruit juice are all good sources of vitamin C. Since deep green and yellow are indicators of vitamin A, you'll get more food value for your money by choosing green over yellow wax beans, carrots over beets, peaches or apricots over fruit cocktail, pineapple or pears.

(more)

add 1 -- canned foods

Miss Mikesh gives these buying pointers for specific canned fruits and vegetables:

Peas. The two major classes are the early June and the late or sweet peas. The latter are somewhat irregular in shape as contrasted with the perfectly round early June varieties. Tiny sieved peas are the most expensive, though many people prefer large starchy peas as most flavorful. Some canners offer straight-run peas, which include all sizes and are usually good buys.

Beans. Asparagus-style whole beans are the most expensive, followed by tiny whole beans. French and straight-cut are about equal in price. But price is often not an indication of quality. Note the brand that suits your palate and pocket book best.

Apricots. Whole peeled apricots are more expensive than unpeeled halves. Look for information as to number of apricots in the can as a clue to quantity of fruit in relation to grades. Since apricots in the top grade will be large, a No. 2 1/2 can will usually contain up to 24 halves. A medium-grade No. 2 1/2 can will usually contain up to 42 halves. For richness in flavor, choose the Blenheim variety.

Peaches. Freestone peaches are not as attractive as Cling peaches, but many like the rich, home-canned flavor. The fancy grade has large halves and heavier syrup than the lower grades. Grade A (fancy) may have 6-10 halves in a No. 2 1/2 can; Grade C may have 6-21 halves. Find a brand that gives you the proportion of fruit and juice and the quality you like.

Grapefruit. Buy broken segments, if you're not particular about shape. They have the flavor of fully ripe fruit.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
April 23, 1963

Immediate release

#### L. M. HENDERSON APPOINTED AS BIOCHEMISTRY HEAD AT UM

Lavell M. Henderson, biochemist at Oklahoma State University, has been named head of the Department of Biochemistry at the University of Minnesota, beginning July 1, 1963.

Professor Henderson will fill the position vacated by W. F. Geddes, who died in 1961.

Henderson has been head of biochemistry at Oklahoma State since 1957 and earlier served on the biochemistry faculties at the universities of Wisconsin and Illinois.

Originally from Idaho, he earned his B. S. in 1939 from Utah State University, and did his graduate work at the University of Wisconsin, where he received his M. S. in 1941 and his Ph. D. in 1947.

He is author or co-author of more than 70 professional articles on biochemistry of nutrition, general biochemistry, metabolism and related subjects. He was 1955 recipient of a Laylor Foundation Summer Award and participated in an International Congress of Biochemistry in Vienna in 1958.

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63-127-vln

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
April 23, 1963

Immediate release

### BEEKEEPERS' SHORT COURSE

Honeybee activities from the production of the well known sweets to the busy insect's contribution to agriculture by pollenizing plants will be discussed at the 21st annual Beekeepers' Short Course to be held on the St. Paul Campus of the University of Minnesota May 3 and 4.

Sessions during the two-day meeting will be under the direction of M. H. Haydak, of the Department of Entomology, Fisheries and Wildlife.

Registration starts at 8 a.m. May 3 in Coffey Hall. Cost is \$15 for the course.

The short course is offered through the Department of Agricultural Short Courses, Institute of Agriculture, University of Minnesota.

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63-126-vln

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
April 25, 1963

Immediate release

## ARBORETUM WILL EXPAND

The University of Minnesota Landscape Arboretum, started in 1958 with 160 acres of land, will eventually encompass an area nearly double this size.

When purchase contracts by the Minnesota State Horticultural Society are completed, the Society will transfer ownership of two new tracts to the University, for a total arboretum acreage of 302 acres, according to Eldred M. Hunt, secretary-treasurer of the Society.

Ninety-seven acres, bordering the original arboretum on the south are being purchased with funds supplied by the St. Paul Garden Club. Another tract of 45 acres, bordering the arboretum on the west, is being purchased with special funds given by donors for land purchase only.

Purchase of the land on which the arboretum was established was made in 1957 with funds furnished by the Lake Minnetonka Garden Club. Gifts from garden clubs, foundations, other organizations and individuals have made progress possible during the past five years.

The newly acquired land will make possible the normal expansion of trial plantings and carrying out of long-range objectives, though development of the new portions is not planned for the immediate future. However, the arboretum's future, in terms of reasonably adequate working and expansion space, is assured, Hunt said.

The Minnesota Landscape Arboretum is located near Excelsior.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
April 25, 1963

Immediate release

## 70 AWARDS GIVEN TO FUTURE FARMERS

More than 70 young Minnesotans, representing 55 FFA chapters, were named winners today of nearly \$2,500 in Future Farmer of America awards.

They will be honored at a luncheon on the St. Paul Campus of the University of Minnesota May 6 during the state FFA convention.

Included are the following National FFA Foundation Proficiency in Farming state awards of \$100 each:

Star Dairy Farmer, Floyd Marti, 19, Sleepy Eye; Star Beef Farmer, Verlyn Nickel, 19, Mountain Lake; Star Crop Farmer, Keith Skalet, 19, Halstad; Star Swine Farmer, William Kriesel, 20, Owatonna; Star Sheep Farmer, Larry Henning, 19, Okabena; Star Forestry Farmer, Clayton Kauppila, 18, Barnum; Star Poultry Farmer, Rodger Schneck, 17, Ortonville; Star Livestock Farmer, Roger Hardy, 18, Sacred Heart.

Soil and water management, Thomas Wagner, 18, Sanborn; farm mechanics, Earl Thomas, 19, Barnesville; farm and home electrification, Robert Week, 17, Evansville.

Minnesota FFA Foundation trophy awards:

Regional soil and water management--Jerry Larson, 18, Climax; Dennis Bradbury, 17, Barnesville; Paul Syltie, 18, Canby; Rolland Ledebuhr, 18, Lewiston; and Merril Ewert, 18, Mountain Lake.

Regional Star Dairy Farmers--Allan Swalstad, 17, Halstad; Joe Hough, Jr., 17, Barnesville; Dennis Moeller, 17, Canby; Phil Haaland, 17, Owatonna; and Alfred Hagen, 18, Spring Grove.

Minnesota FFA Foundation merchandise awards:

District Star Farmers--Roger Dziengel, 17, Kennedy; Ronald Cline, 17, Staples; Joe Hough, Jr., 17, Barnesville; Steve Dille, 17, Litchfield; Richard Anderson, 17, Ortonville; Thomas Wagner, 17, Sanborn; Robert Ingvalson, 17,

(more)

add 1 -- FFA award winners

Blooming Prairie; and David Stegemann, 16, Wabasha.

Regional Concrete Improvement award of \$20 each from Portland Cement Association:

Kenneth Kristenson, Motley; John Peterson, Hallock; John Snyder, Wadena; Richard Hemmesch, Paynesville; Larry Huselid, Clinton; Lauren Postma, Brewster; David Hartle, Owatonna; and Gary Luehmann, Lewiston.

The Ortonville FFA chapter will be honored as state winner of the National FFA Foundation Award of \$100 for farm safety. Chapters from Faribault, Hutchinson and Stewart each receive \$50 for showing the most progress in home-grown feeds. The awards are sponsored by the National Dairy Products Corporation, National Butter Company and Kraft Foods Company.

Other regional FFA Foundation trophy award winners:

Beef farming--Ronald Corner, 18, Motley; George Palmer, 16, Barnesville; Roger Prokosch, 17, Morgan; Gary Wilson, 18, Mountain Lake; Dennis Whitney, 18, Delavan; and Roland Burt, 17, Lewiston.

Crop farming--Charles Saari, 18, Embarass; Joseph Schramel, 17, Belgrade; David Anderson, 19, Hector; Jerry Becker, 19, Blooming Prairie; David Stegemann, 17, Wabasha; and Gary Wilson, Mountain Lake.

Swine farming--Larry Aarestad, 18, Halstad; Marvin Muller, 19, Motley; Richard Anderson, 18, Ortonville; John Roll, 19, Windom and Clifford Vrieze, 18, Spring Valley.

Sheep farming--Curtis Hage, 18, Halstad; Wayne Fairchild, 18, Hibbing; Tom Shumacher, 17, Stillwater; Richard Franklin, 18, Redwood Falls; Robert Meyer, 18, Jackson; Timothy O'Rourke, 18, Wells; and Dennis Jackson, 18, Pine Island.

Livestock farming--James Olsund, 18, Fertile; Ronald Cline, 18, Staples; Roger Ellefson, 17, Barnesville; Daniel Brand, Barnesville; Paul Steinberg, 18, Owatonna; and Erlin Weness, 19, Adams.

Poultry farming--Howard Soost, 18, Wells.

Forestry farming--Ronald Eustice, 18, Owatonna.

Farm mechanics--Kenneth Arends, 18, Willmar; and James Thorpe, 17, Canby.

Farm electrification--LaVerne Peterson, 16, Lewiston.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3025  
April 25, 1963

Immediate release

#### HOG PRICE RISE LIKELY IN SUMMER

Hog prices, which have fallen \$3 a hundredweight since early January to lows of \$13 to \$14, should improve during spring and summer, according to K. E. Egertson, extension economist in marketing at the University of Minnesota.

Egertson says that the price drop, which brought pork prices to the lowest point since fall and winter of 1959-60 can be traced as much to drop in demand as to increase in supply during the first three months of this year.

He points out that commercial hog slaughter during this period was only moderately heavier than a year earlier. It totaled about 21.9 million head, 6 percent increase from last year. April slaughter was running 8 percent ahead of a year ago.

The decline in demand tended to magnify the price drop brought on by the expanded supply. Egertson says that plentiful supplies of competing meat products helped weaken demand for pork.

Broiler supplies, for example were 10 to 15 percent larger than last year and prices were down. The fryer thus attracted a good many homemakers who might have otherwise purchased pork. And beef output was 4 percent larger with retail prices also declining during late March and April.

Egertson says that there is some uncertainty in the short run outlook about what will be the effects of competition from beef and poultry this summer. It looks

(more)

add 1 -- hog price rise

like supplies of these products will remain large, but the situation should improve some and thus help the pork prices.

In spite of the depressed situation now, Egerton says, hog producers can expect a normal seasonal price increase once the heavy slaughter ends late this month. Once started, he says, the price rise should continue through August, but prices will remain 5 to 9 percent lower than the \$17.75 a hundredweight peak of last summer.

He concluded that profits have been subnormal for about 6 to 8 weeks. Producers can expect a similar but improving level for 4 to 5 weeks. By then prices should be above the break-even level for the average hog producer.

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63-130-vln

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
April 30, 1963

Immediate release

## GROW YOUR OWN CHERRY TOMATOES

Leave some room in your garden or your flower border this spring to plant some of the cherry-sized tomatoes so popular in salads or as appetizers.

These tomatoes may be seeded directly into the garden in early May, or plants may be set out in the garden by Memorial Day.

Two or three plants will produce enough fruits for the average family, according to Orrin C. Turnquist, extension horticulturist at the University of Minnesota.

Small-fruited tomatoes are of four types--currant, cherry, plum or pear, depending upon their shape and ranging in diameter from a nickel to a 50-cent piece.

Among the varieties the University horticulturist recommends for Minnesota are Early Salad hybrid, a large cherry type, and Tiny Tim. Both varieties produce early fruits.

Tiny Tim will grow 12 to 18 inches tall and is a smaller-fruited tomato than Early Salad hybrid. Early Salad hybrid has compact plants only 6 to 8 inches tall with a spread of about 2 feet. Each plant of the hybrid may produce up to several hundred bright red fruits averaging 1 1/2 inches in diameter.

Although many nurseries will be selling plants of these varieties, some nurseries and garden centers will specify the type rather than the variety or may advertise the tomatoes as cocktail or eat-whole tomatoes.

Whether you seed these tomatoes or set out transplants, Turnquist recommends planting them in a sunny spot in the garden. Space plants 3 feet apart, allowing them to spread on the ground. When transplanting the tomatoes into the garden, use a starter solution of 1/2 cup of a complete fertilizer in a gallon of water. Use 1/2 cup of this solution around each plant. Continue watering with the solution at weekly intervals until the first fruit is set.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
April 30, 1963

Immediate release

#### LIVESTOCK BREEDERS TO MEET AT U OF M

More than 200 stockmen will attend the 67th annual meeting of the Minnesota Livestock Breeders Association scheduled for Friday, May 31, on the St. Paul Campus of the University of Minnesota.

The meeting will start at 10 a.m., according to LaVern Freeh, director of agricultural short courses. The morning will be devoted to group meetings of the various cattle, swine, sheep and horse breeder groups and to the Association committees. Each group will have a University dairy or animal husbandman as host and resource person.

The noon luncheon, sponsored by the Block and Bridle Club, will include short talks, a presentation of awards and entertainment.

The business meeting starting at 2 p.m. will be the last item on the program.

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Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
April 30, 1963

Immediate release

## INSTITUTE OF AGRICULTURE CALENDAR

### MAY

- 1 Home Landscaping Workshop, Grand Rapids  
1, 8, 15, 22 and 29 Grain Elevator Short Course, Lamberton  
2-3 Parent and Family Life Conference, Waseca  
2, 9, 16, 23 and 31 Grain Elevator Short Course, Morris  
3-4 Minnesota Academy of Science, St. Paul Campus  
3-4 Beekeepers' Short Course, St. Paul Campus  
5-7 FFA Convention and Short Course, St. Paul Campus  
7, 14, 21 and 28 Grain Elevator Short Course, Waseca  
14-16 Home Agents Spring Conference, St. Paul Campus  
16 Minnesota-Iowa Livestock Conference, Austin  
31 Livestock Breeders Association Annual Meeting, St. Paul Campus

### JUNE

- 3-6 District Homemakers Conference, Grand Rapids  
5-9 4-H Conservation Camp, Itasca Park  
7-9 Western Regional Conference of Young Adults, Waseca  
9-13 4-H Health Camp, Itasca Park  
10-14 4-H Club Week, Morris  
10-14 4-H Club Week, Grand Rapids  
17 High School Teacher Industrial Institute, Itasca Park  
17-20 Hot Lunch Workshop, Morris  
17-21 4-H Club Week, Crookston  
17-28 Farm Management Approach to Teaching Agriculture, St. Paul Campus  
17 (through July 19) University of Minnesota Civil Engineers Field Project, Grand Rapids  
21 Rose Grower's Day, St. Paul Campus  
24-25 Midwestern Conference of Parasitologists, St. Paul Campus  
25-26 Homemakers Workshop, Morris  
25-28 State 4-H Junior Leadership Conference, St. Paul Campus  
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63-135-vln

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 30, 1963

To all counties

ATT: HOME AGENTS

Immediate release

FOR SATISFACTION  
SELECT EQUIPMENT  
WITH CARE

How can the average consumer select major household equipment intelligently?

Buying an appliance is more than a money transaction; it should be a careful process calling for knowledge of essential features of the appliance and ability to evaluate its accessory conveniences.

So says Florence Ehrenkranz, professor of home economics at the University of Minnesota. She suggests some guides to follow in shopping for major appliances:

. Get as much information as possible about appliances currently on the market. Different models of washing machines, for example, have different cycles and temperatures, use different quantities of water, occupy different amounts of space. Similar considerations apply to other appliances.

Sources of this information include books and bulletins available at libraries, consumer magazines, and publications of the Institute of Agriculture of the University.

. Talk with friends who own the appliance in which you are interested to learn what they like and don't like about a particular model and why. The "why" is important. You might find that a homemaker's dissatisfaction with an appliance is due to failure to follow manufacturer's recommendations for its use.

. Think over factors on which you need more information and pick out those that seem especially important to you.

. Visit stores that sell the appliance. While looking at appliances on display, remember the main points in which you are interested. Ask for a demonstration of the appliance, as well as printed materials -- specifications and the user's booklet, if possible.

Question the salesman. Get information on safety seals, warranties, servicing arrangements, and on initial installation and operating costs of the appliance.

(more)

add 1 - equipment selection

. At home review and evaluate opinions and information you have collected. Confer with other members of the household. Decide what features are most important to your family.

. Make a check list for your final choice. Include safety seals and warranties, ease of use of the appliance, ease of cleaning and maintaining the appliance, space needed, design, durability, and reputation of the manufacturer and dealer for "standing behind" their products. Finally, weigh the effectiveness of the appliance for the primary purpose for which you will purchase it.

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Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 30, 1963

To all counties

4-H NEWS

Immediate release

FILLERS FOR YOUR 4-H COLUMN

4-H clubs in the United States boast 2,285,592 members ranging in age from 9 to 21 years. Of the total enrolled, 979,562 are boys; 1,306,030 are girls.

\* \* \* \*

Through their contributions, Minnesota 4-H'ers continue to have a special interest in the National 4-H Center in Washington, D. C. During the recent National 4-H Conference at the Center, Thomas Hovde, Hanska, one of Minnesota's National Conference delegates, presented \$500 from Minnesota 4-H'ers for additional improvements in the Minnesota Room. The money will provide wall paneling, audio-visual blinds and storage cabinets for recreational equipment.

The Minnesota Room honors two former Minnesota state 4-H Club leaders, T. A. Erickson and A. J. Kittleson. It is one of three large rooms at the Center used for recreation and big meetings.

\* \* \* \*

Nearly every state is represented by gifts at the National 4-H Center, which is a working memorial to 4-H. During 1962 more than 12,000 4-H members, leaders, Extension Service personnel and others from every state and from some 50 other countries took part in educational programs at the 4-H Center.

\* \* \* \*

Leonard Harkness, state 4-H Club leader, was a member of the Board of Trustees of the National 4-H Foundation for a number of years.

\* \* \* \*

Minnesota had the largest number of sponsors among states joining in the National 4-H Club Foundation's Service to Youth programs last year. Of the 2,611 sponsors of the National Foundation were 268 banks, industries and businesses in Minnesota. More than 250 banks responded to a fund drive conducted by Paul W. Gandrud, vice president of the Swift County Bank, Benson County. Sponsorship of the International Farm Youth Exchange program is one of the projects of the Foundation.

# # # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 30, 1963

To all counties  
Immediate release

SMALL ACREAGE  
WHEAT GROWERS  
HAVE KEY CHOICE

How important is the vote of small-acreage wheat growers in the coming wheat referendum?

Farmers with 15 acres of wheat or less make up over three-fourths of the total number of wheat growers in Minnesota. And these growers may vote in the 1964 referendum May 21--if they first sign up by May 13.

What are the implications of the proposed 1964 wheat program for this small grower? The decision as to whether to sign up may depend upon a variety of considerations--including how the proposed program affects the individual farm and the grower's general attitude toward public programs.

Some of the economic consequences to the 15-acre grower under different outcomes have been spelled out by Paul Hasbargen, extension economist at the University of Minnesota. He discusses three possible situations:

1. The 15-acre grower signs up in advance and the referendum passes: The grower becomes eligible to vote and after passage receives marketing certificates for 80 percent of the normal production on his allotment. He is eligible for a loan on certificated wheat at the higher support rate (\$2 per bushel) and for any excess at the national rate (\$1.30 per bushel). The grower may divert part or all of his 1964 allotment and receive payments equal to half the county support rate times his normal yield. He may plant either 90 percent of the average wheat acreage on his farm for the 1959-61 period, or 90 percent of his present allotment, whichever is larger. In no case will this acreage exceed 90 percent of 15 acres. The grower receives a diversion payment for the mandatory 10 percent cut, equal to 30 percent of the county support rate times the normal yield. Marketing quota penalties will be imposed for marketing in excess of allotments.

2. The 15-acre grower does not sign up and the referendum passes: Under this situation, the grower can't vote, he receives no marketing certificates,

(more)

add 1 - small wheat grower

and any wheat he sells would bring about \$1.30 per bushel--the non-certificated wheat price. The grower is not eligible for price support loans or diversion payments. In 1964 he may plant either the average acreage of 1959-61 on his farm or his present actual allotment, whichever is larger. The 10 percent acreage cutback does not apply in this situation; however, the grower would be subject to marketing quota penalties if he were to plant in excess of the 1959-61 average acreage or his present allotment.

3. If the referendum fails. Consequences then are the same regardless of whether the grower signed up in advance. In either case, he could choose between two alternatives: first, staying within the 1964 allotment and being eligible for price supports at about \$1.25 per bushel (50 percent of parity) or, second, overplanting without penalty and selling at the market price.

Hasbargen points out in comparing the first two situations that a grower can suffer an income loss if he doesn't sign up and the referendum passes. Therefore, regardless of whether the small producer favors a "no" or a "yes" outcome, -- or whether he wants to vote at all -- he should seriously consider the possible consequences of not signing before May 13.

# # # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 30, 1963

To all counties  
Immediate release

NO BIG PRICE RISE SEEN  
FOR SLAUGHTER CATTLE

Slaughter cattle prices aren't likely to increase much during the next three or four months, according to K. E. Egertson and H. G. Routhe, extension agricultural economists at the University of Minnesota.

They point out that slaughter cattle prices have been under severe pressure since late 1962. Following a \$5 a hundredweight upturn between July and November, prices declined \$7 to \$8 a hundredweight on choice fed cattle up to late March. Recent slight strengthening of the market brought it only a little above the average established in June and July of 1961.

The economists explain that a combination of factors depressed cattle prices:

- . Beef supply increased, particularly fed steer beef. There was a 25 per cent increase from November to February.
- . Large supplies of pork and poultry were available at reduced prices.
- . Prospects for continued large runs of beef were good, thus reducing the demand for storable beef.
- . The retail price drop for beef lagged behind the drop at the wholesale level. Adjustments were made in March and early April so margins are fairly normal now.

Cattlemen are concerned about the sharp decline in fed cattle prices. High feeder cattle prices last fall, with the sharp drop in prices since, have seriously reduced incomes for most farmers who are now selling cattle. Most of them are hoping for a strong rise.

Egertson and Routhe point to some factors which indicate this will likely not occur.

The April 1 Cattle on Feed Report showed 105,000 cattle on feed in 20 states, an increase of 11 percent from April 1, 1962. Largest percentage increase was in

(more)

add 1 - slaughter cattle

the heavy cattle group over 1,000 pounds, up 24 percent. These are the cattle which will be ready for market in the next 30 to 45 days.

The number of cattle in the 700-1099-pound weight was up about 9 percent and those under 700 pounds 11 percent.

Substantial numbers of cattle apparently are available for marketing. Bunched marketings during the spring and summer are possible.

The demand for beef may improve a little, Egertson and Routhe say. Disposable incomes should continue strong with some reduction of unemployment. Pork prices should increase some to reduce the pressure from this competing product.

Cattle feeders now face the task of moving the supply to market in an orderly manner and at acceptable and marketable weights. If this can be done, a slightly higher market could result. But if cattle feeders delay marketings in anticipation of a strong upturn and then "glut" the market this summer, prices could move down even more. So the situation tends to be shaky.

Egertson and Routhe advise feeders to watch feedlots closely and to top off cattle at acceptable weights. Putting on additional weight after cattle are finished will not pay unless a sharp price increase is in the picture. This doesn't appear to be the case this year.

Cattle feeders can take consolation from the one hopeful fact in the low price situation. Low slaughter prices generally mean lower feeder cattle prices. Both demand and price for feeder cattle should be reduced by next fall as feeders remember their present situation. The bidding, which has been in favor of the rancher for several years may shift to favor the feeder this fall.

# # # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 30, 1963

To all counties  
Immediate release

PLAN WINDBREAKS  
ON WINDY DAYS

Windy spring and summer days are the best times to make your plans for field windbreaks, according to Marvin E. Smith, extension forester at the University of Minnesota.

He says that if you are out in the fields then you can see where the winds are uprooting seedling plants and sweeping valuable topsoil away.

Research has shown that a series of one-row tree belts is a better windbreak than the older style belts with several rows of trees. One row belts are easier to keep free of weeds, Smith says, and the snow is distributed more uniformly over the adjacent fields.

Farmers who have planted the one-row tree belts have found that they do the job of wind control while taking up a minimum of field area.

Your county agent or SCD farm planner can help you plan your system of tree belts. Meanwhile you can work up sod ground or heavy soil so next year's planting will get off to a good start.

For more information pick up a copy of Extension Folder 217, "One Row Windbreaks," at the county extension office.

# # # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
April 30, 1963

To all counties  
Immediate release

C O L U M N F I L L E R S

Will wheat consumption increase in the future? The answer is a probable yes, but world wheat production and carryover stocks are expected to be more than ample to meet demand. The U. S. Department of Agriculture estimates that world wheat consumption in 1966 will probably be between 9.2 and 9.5 billion bushels. That's compared to about 8 billion in 1958. The annual increase in consumption is expected to average about 150 to 200 million bushels. Increased output at about 2 percent annually would be adequate to meet the expected increase in demand, economists of the USDA say.

\* \* \* \*

Hog prices may improve somewhat during spring and summer. That outlook is from Kenneth Egertson, extension economist at the University of Minnesota. Since early January, market hog prices have dropped to lows of \$13 to \$14 per hundred pounds, a decline which is due to a drop in demand as much as to increase in supply. The demand drop in turn may be traced partly to plentiful supplies of competing meat products. Broiler supplies, for example, were 10 to 15 percent larger than last year.

\* \* \* \*

Peace Corps Opportunities: The Peace Corps is searching for persons over 18 who have a knack for operating and repairing farm machinery. Seven countries have been asking for such individuals who can teach the principles of machinery maintenance. Such volunteers might even need to improvise parts or make major repairs, in cases where spare parts are thousands of miles away. County extension offices have more information about the work and how a qualified person may apply for Peace Corps duty.

\* \* \* \*

A food supply for emergency is more than nuclear disaster protection. Clifton Halsey, extension rural civil defense agent at the University, points out that a food stockpile may be used eventually anyway and therefore doesn't mean extra costs. But it is good do-it-yourself insurance.

# # # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
May 2, 1963

Immediate release

## HORTICULTURAL SCIENCE OFFERS VARIED CAREER OPPORTUNITIES

As one of the most rapidly developing industries in the world, horticulture is offering increasing career opportunities to young people that are professionally trained, according to C. J. Weiser, assistant professor of horticulture at the University of Minnesota.

In fact, there are not enough well trained people to fill positions available in the various fields of horticulture, he says.

Horticulture has become a \$13 to \$14 billion annual business, rivaling the value of the automotive industry in the United States. In Minnesota horticulture contributes about \$300 million to the economy. Horticultural food crops alone comprise 38 - 40 percent of the diet.

Information on career opportunities in horticulture is given in a new publication, Exploring Horticultural Science as Your Career. Copies are available from the Department of Horticulture, Institute of Agriculture, University of Minnesota, St. Paul 1.

Teaching, research in fruit, vegetables, ornamentals and turf, plant breeding, food technology, landscape designing, park supervision, garden store operation, florist retailing, greenhouse management and turf management are among the career possibilities listed in the brochure.

As an example of the growing needs of the industry for more professionally trained young people, Weiser cites a need for more plant breeders and physiologists to keep pace with the demands of rapidly changing systems of culture, storage and processing. A shortage of trained personnel in landscaping has occurred because of the spectacular growth of interest in lawns, trees, shrubs and gardens and in beautification of civic sites. Demand for professionally trained turf specialists is also growing. More than \$90 million is spent in Minnesota each year for the commercial maintenance of turf of golf courses, cemeteries and athletic fields.

Areas of horticulture in which students can specialize at the University of Minnesota are fruits, vegetables, food handling and processing and ornamentals. The latter division includes landscaping, floriculture, turf and nursery management and arboriculture. Field laboratories at the University include the 230-acre Fruit Breeding Farm, the 302-acre Landscape Arboretum, 20,000 square feet of research greenhouse space and 20 acres of experimental plots.

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63-138-jbn

## CLOTHING CAN AFFECT CHILD'S PERSONALITY DEVELOPMENT

Parents need to understand better the important part clothing plays in helping children develop good habits and character traits.

That's the opinion of an extension clothing specialist at the University of Minnesota, Athelene Scheid. She points out that parents who consider the effect clothing has on the developing child as they plan, select and care for his clothes are helping him to become a happy individual and a responsible family member.

The influence clothing has on young children is apparent in such situations as these:

- . Straps that slip off the shoulders and trousers that slide down affect posture.
- . Over-sized garments or too tight clothes may cause physical discomfort, hinder play activities and make a child irritable.
- . A mother-daughter costume often encourages a child to adopt mannerisms beyond her years.
- . An Indian outfit excites a child and is likely to stimulate shouting and wild running. Such an outfit may help give the timid child courage to express himself; on the other hand, it may make another child too boisterous.

A child's clothing should not set him apart from other children, either favorably or unfavorably, Miss Scheid said. A little girl dressed too elaborately or made very conscious of clothing may grow up with distorted values about the importance of clothes. A little boy who wears shorts long after his friends appear in long trousers may develop a lack of self-confidence.

Children want to wear the same kind of clothes as their playmates, since similar clothes give a child a feeling of belonging to the group. By recognizing this fact and selecting clothes accordingly, parents can help children make desired social adjustments, according to the University clothing specialist.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
May 2, 1963

Immediate release

## UM ECONOMIST REVIEWS WHEAT REFERENDUM ALTERNATIVES

Some of the issues behind the 1964 wheat referendum upon which wheat farmers will vote May 21, were outlined this week by a University of Minnesota agricultural economist.

Elmer Learn says the overall wheat situation is so complex that no amount of analysis can point to any obvious choice. Each grower must consider his own income in terms of level and stability, the extent to which he feels government intervention in the wheat market is desirable, how he feels about controls--mandatory or voluntary--and other factors.

Wheat, says Learn, illustrates the problem basic to American agriculture generally. Too many resources are devoted to agricultural production in relation to what consumers demand. The result is either government programs or lower than satisfactory returns to producers, at least in the short run.

If resource adjustment is to be accomplished, Learn continues, there are two broad choices: either government-sponsored programs can be used to adjust resources while maintaining prices and incomes, or the adjustment may be accomplished through the market, under pressure of lower prices and income.

"The market is an indiscriminating device and may be painful," according to Learn. "On the other hand, government programs do impose restraints on individuals."

He says that wheat represents the most critical of all commodity problems. Stocks of wheat in government storage have continued to grow. By July 1, 1961, carryover stocks reached a peak of 1.4 million bushels--more than enough for a full year's domestic and export requirements. Even so, recent years have seen about 400 million bushels of wheat, or two-thirds of our wheat exports, being sold under special programs.

(more)

add 1 -- wheat situation

As a result of the growing crisis in wheat surpluses, Learn says, the 1964 wheat program has been proposed to face the situation in more clear terms than in the past. "The alternatives presented in the referendum are by no means the only ones and perhaps not the best of all possible alternatives," he says. "But the referendum does force farmers to make a very clear-cut decision with regard to wheat."

The basic choice in the 1964 referendum is between a "yes" vote which would put into operation a program to reduce wheat production resources through mandatory government regulations and a "no" vote which would leave greater decision making freedom to producers but lower levels of prices and incomes.

The choice is not made once and for all through the 1964 referendum--regardless of how the vote goes. In case of a "no" vote, Congress could conceivably pass new legislation. If the referendum passes, it wouldn't necessarily mean the same program for 1965.

Learn adds that consequences of the referendum will extend to more than wheat. To some extent, wheat farmers also produce feed grains. Unlimited production of wheat would be inconsistent with limitations on feed grain production.

"In the early 1950s," Learn continues, "we had limitations on wheat but very loose controls on feed grains, giving rise to a shift in resources to feed grain production. Through voluntary programs, in the current administration, we got controls on feed grains, but at a relatively high government expense."

Recent action on Congress helps answer some of the questions about the relationship between wheat and feed grain programs. The House of Representatives last week passed a feed grain bill providing for restrictions on feed grain production on a voluntary basis. "Therefore," Learn says, "Congress is apparently willing to continue a voluntary program on feed grain along with mandatory restrictions on wheat."

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
May 2, 1963

Immediate release

#### VERSATILE LAKE CABIN PLANS ARE AVAILABLE

In those dreams about your vacation cabin beside a northern lake, you probably have been looking about for a set of sensible plans.

U. S. Department of Agriculture engineers have designed a vacation cabin 24 feet square that will adapt well to a number of situations.

For example, you can erect the exterior walls and then finish the interior or add extra rooms at your convenience. The wall between the living area and the bedroom is a movable storage wall. Bedroom partitions may be removed or rearranged with a minimum of refinishing.

Plans call for concrete foundations, walls and a concrete slab floor. But you can build it with a wooden floor on a masonry foundation or on creosoted pole piers, if the location slopes steeply. It can be heated by wood or oil hot air stove, hot water or electrical heat.

The design can also be used as low-cost living quarters while a family is building a permanent home. Later it can be converted to a two-car garage.

For a copy of Plan No. 5928, send 75 cents to the Institute of Agriculture, University of Minnesota, St. Paul 1.

## GOOD CARE IMPORTANT IN RUG APPEARANCE

Good care is basic if you want to get longer service from your rugs and carpets and keep them looking attractive.

Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota, says that proper rug care includes regular vacuuming, occasional surface brightening, professional cleaning and quick stain removal.

Regular vacuuming is the most important step in keeping carpets and rugs at the peak of beauty, according to Mrs. Zabel. Cleaning even seldom-used areas regularly--once a week, for example--prevents atmospheric dust from becoming imbedded in carpet fibers and makes the job of regular upkeep easier. Carpet sweepers are helpful for daily light cleaning, but a vacuum cleaner is essential in removing below-surface soil.

To prevent matting from regular traffic lanes, turn area rugs occasionally and rearrange furniture once or twice a year on wall-to-wall carpeting.

When the carpet is dulled by an accumulation of soil which isn't removed by vacuuming, home-cleaning methods will brighten the carpet surface.

Professional cleaning by a reliable carpet and rug cleaning establishment will be necessary periodically, however, to remove all the soil imbedded in carpets and rugs. A rug can be cleaned most thoroughly in a professional cleaning plant, but many professional cleaners are equipped to go into homes for on-location cleaning of wall-to-wall carpeting.

Once the rug or carpet has been cleaned, prevent spills from becoming permanent stains by treating them immediately. When dry, many stains become permanent, Mrs. Zabel says.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
May 7, 1963

To all counties  
ATT: Home Agents  
Immediate release

SPEED IS KEY TO  
STAIN REMOVAL  
ON RUGS

Quick action is one of the keys to avoiding damage when something is spilled on carpets and rugs.

If mopped up and treated immediately, many spills can be removed without leaving any trace of discoloration. However, they may become permanent stains when they dry, according to Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota. Treating a stain with the wrong type of cleaner can also set it permanently.

Damage from stains on rugs can be kept to a minimum, Mrs. Zabel says, if homemakers follow these three rules:

1. Remove spots or stains before they dry.
2. Have necessary cleaning equipment on hand.
3. Try to identify what caused the stain and remove it with the proper material.

Cleaning materials for most spots are simple: water, a detergent used for fine fabrics, white vinegar and a dry-cleaning fluid. These materials may be used safely, without damaging carpets.

For non-greasy stains, add a teaspoonful of mild detergent and a teaspoonful of white vinegar to a quart of warm water.

For greasy stains, use a grease solvent such as any dry-cleaning fluid.

In removing any spot on a carpet, use the cleaning material sparingly on a cloth or sponge. Never pour it directly on the carpet. Sponge the spot lightly, working from the center irregularly toward the outside edges so there will be less danger of leaving rings. Avoid getting the carpet too wet.

If you are unable to identify a spot on your rug, use this cleaning procedure: Blot up liquids with a clean white cloth or other absorbent material; scrape up semi-solids with a knife or spatula. Apply the detergent-vinegar-water solution, using a clean cloth. At intervals blot with a dry, clean cloth to absorb excess moisture. Dry the carpet further by using a fan or some other means of circulating air. If the water solution seems to remove part of the stain, it may be wise to repeat it. If not, apply a dry-cleaning fluid. Dry the carpet and then brush the pile gently to restore the original texture.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
May 7, 1963

To all counties  
ATT: Home Agents  
Immediate release

MAY PLENTIFULS  
FEATURE MEATS

From May Day to Memorial Day, budget-minded homemakers will be filling their shopping baskets with the abundance of pork, beef and broiler-fryers headed for markets.

Carrots, milk and dairy products and canned freestone peaches also are on the U. S. Department of Agriculture's plentiful foods list for May, according to Mary Ryan, extension consumer marketing specialist at the University of Minnesota.

Meat and poultry prices should fit most budgeted pocketbooks because of the unusually large supplies of these foods in sight. The variety of beef, pork and broiler-fryers will provide interesting main dishes for both indoor and outdoor meals.

Fresh spring carrots from the Southwest will be following on the heels of the near-record winter crop. Both will be available at local markets.

Milk production, expected to reach its annual peak during the month, may be even greater than last year. Consumers will find ample supplies of fresh whole milk, evaporated or dry milk, ice cream, cottage and other cheese, sweet and sour cream, butter and all other dairy products.

Again in May, sunny-colored canned freestone peaches are expected to be plentiful and low priced.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
May 7, 1963

To all counties  
4-H NEWS  
Immediate release

4-H'ERS OBSERVE  
RURAL LIFE SUNDAY

Minnesota 4-H'ers will observe Rural Life Sunday on May 19.

On this day the spiritual emphasis in 4-H is brought to focus as members attend church together and assist in special ways with services.

Rural Life Sunday emphasizes and recognizes the spiritual value and character-building qualities of 4-H work.

(Add a paragraph on programs or observances planned in your county, such as special services or 4-H participation in regular services.)

Rural Life or 4-H Sunday is observed the fifth Sunday after Easter. It is closely linked with Rogation Days that emphasize praying for God's blessing upon the fruit of the earth. 4-H'ers join in seeking the blessing of God upon the land, the seed, the cultivation of the earth and the enrichment of home and community life, explains County Agent \_\_\_\_\_.

-kmr-

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
May 7, 1963

To all counties  
Immediate release

ECONOMISTS OUTLINE  
GENERAL CONSIDERATIONS  
IN WHEAT REFERENDUM

How will wheat farmers decide whether to check off the "yes" or the "no" on the wheat referendum ballot May 21?

As with any major issue, different individuals may have widely differing ways of making their decisions. And anyone would be hard put to say just which considerations are the important ones.

A group of agricultural economists at the University of Minnesota have pointed to some of the possible considerations of wheat producers in making the decision. Their complete statement is available from county extension offices.

The economists point out that the basic problem in the wheat economy and American agriculture generally is that too many resources are devoted to agricultural production, relative to consumers' desires. Key agricultural policy decisions involve choices on how best to remove some of these resources.

"The alternatives in the 1964 referendum," the economists say, "are by no means the only alternatives and perhaps not the best of all possible alternatives with respect to wheat."

The basic choice in the referendum is:

- 1) Will resources in wheat be reduced through mandatory government regulations with relatively higher levels of prices and incomes for producers, or
- 2) Will incentive to remove such resources be left largely to the price system--involving greater decision making freedom for producers, but lower prices and incomes?

The economists then make these points:

Income to wheat producers will be higher under a "yes" vote than a "no" vote for the year 1964. The same would likely be true in 1965, but unless new legislation is passed for 1966, diversion payments would cease and the income difference between the two alternatives would become smaller.

add 1 - wheat referendum considerations

Degree of control of farm operations varies according to whether the referendum passes. A "yes" vote means mandatory compliance with acreage allotments and tight restrictions on production and marketing of wheat. A "no" vote leaves compliance on a voluntary basis, with fewer restrictions on marketing.

Cost to government for the wheat program would be lower under a "no" referendum since support prices and export subsidy would be lower, and there would be no diversion payments. Effects on the feed program would depend upon the type of program passed by Congress, but with one comparable to 1963, feed grain program costs would increase under a "no" wheat vote. This increase would be due to increased use of wheat as a substitute for other grain as feed and a shift in acreage from wheat to grain.

Land use and land value adjustments may not be affected markedly, at least not immediately, regardless of the vote, since such uses and values depend in part on the rigidities of marketing quotas and the proposed program ties quotas to acreage allotments. Under a "no" vote, there might be some shift to other grains in the major wheat states. Over the longer run, wheat acreage would likely increase for a few years. The economists point out that higher prices and incomes from past support programs have been partially capitalized into land values and a "yes" vote would tend to maintain or increase this rather artificial price of land. A "no" vote program continued for several years could reduce land values in major wheat areas, but further legislation could temper such reduction.

Influence of a "no" vote on interregional competition in wheat is uncertain. Wheat quality and use characteristics vary by region, although price differentials by wheat class have not been large. If wheat quotas are progressively reduced, output of high quality wheat from certain areas could be reduced below needs, but it isn't certain whether adjustments in supply and utilization could occur rapidly enough to affect competition between regions.

Foreign sales of wheat are not likely to be affected much either way. Our present ability to export wheat for dollars is dependent upon an export subsidy. In the European Common Market, a variable levy system adjusts all wheat prices. Lower wheat prices in the U. S., as under a "no" vote, wouldn't make much difference in European exports.

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Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
May 7, 1963

To all counties  
Immediate release

FREE STALL HOUSING  
HAS MANY ADVANTAGES

Freedom is highly cherished by everyone.

This is true whether you are a person or a cow. Both may revolt if their freedom is limited. The dairy cow's revolt is less noticeable, but it may have quite an effect on a dairyman's profits.

Free stall housing, the latest thing in dairy shelters, offers this freedom plus many other advantages. J. B. Williams, dairy husbandman at the University of Minnesota has listed some advantages and disadvantages to free stall housing.

Cows are free to use the stalls under this system whenever they desire. The usual construction pattern consists of two rows of stalls separated by an alley. This alley is made large enough to permit easy cleaning with a tractor and loader.

The advantages listed by Williams are as follows:

1. Lower bedding costs: Free stall housing systems require about 60 to 80 percent less bedding than do conventional loose housing systems. Chopped straw, sawdust, or shavings are the best materials to use.

2. Cleaner cows: Cows often stay cleaner in free stall housing than in conventional loose housing. Consequently, it is easier to produce higher quality milk.

3. Fewer injuries: Studies have shown no problem of stepped-on udders or other injuries in free stalls. The new system apparently has solved at least one problem that arises from crowded tie stalls or loose housing system.

-more-

add:1.- free stall housing

4. Lower space requirement: The maximum space requirement for the free stall system is only 52 square feet per animal. This consists of stalls 4 feet wide and 8 feet long separated by ten feet of alley. In the conventional loose housing system, the space requirement per animal is 60 to 80 square feet per animal.

Some of the disadvantages listed by Williams include hand removal of droppings from stalls, freezing of the alley in severe cold weather, installing a ventilating system if the building is tightly closed, only one size of stall for all cows, and frequent cleaning of the alley behind the cows.

Cows are usually quite willing to use the stalls. Management experience, suggests that more than 95 percent of the cows use the stalls without coaxing. The others need to be locked in the stalls for a night or two before they use them.

# # # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
May 7, 1963

To all counties  
Immediate release

RURAL FOLKS NEED  
DEFENSE READINESS

What would you do if your radio station suddenly signed off the air with the announcement that the President of the United States had just declared a national emergency?

It's sobering to realize that this could happen even though everybody hopes that it never will.

Clifton Halsey, extension specialist in civil defense at the University of Minnesota, points out that radioactive fallout would be the big problem for rural areas in the event of an enemy attack on the United States. He says that rural people should consider preparedness plans now.

"Preparedness is doing just a little more than the things you do in everyday living," Halsey says. "It's do-it-yourself insurance, like auto accident insurance that you hope you won't ever need, but if you do need it you'll really need it."

Halsey says that there are a lot of things that could make a difference in an emergency, whether enemy attack, storm or flood. For instance, families should expect the water supply may be cut off or contaminated and to lose their electricity. They may not be able to get extra food for several days or more.

Emergency generators can provide light and heat, he says. A food stockpile will be used eventually, so it is not an extra cost. Storing plenty of water for an emergency makes common sense any time.

For more information on civil defense preparedness seek your county agent or civil defense director.

# # # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
May 7, 1963

To all counties  
For release May 9 or later

IN BRIEF.....

Farm size and farm economics: In northwestern Minnesota, farm costs per hundred dollars of gross income may go down as the farm operation gets bigger-- up to the point where the farm grosses \$40,000 a year or so. An Upper Midwest Economic Study report bases that conclusion on a study of 150 farms in Clay, Norman and Polk counties. But beyond the \$40,000 point, cost economies are fairly well exhausted, the study indicated. That "peak" level corresponds to an operation with about 1,100 crop acres in cash grains.

\* \* \* \*

Radio-bearing ruffed grouse have been helping introduce a new approach to the study of wildlife behavior. University of Minnesota wildlife biologists have been mounting small transmitters on these birds, releasing them, and then following their movements with radio tracking equipment. Compared to use of bands and tags, this method gives excellent information on more aspects of wildlife behavior. It is helping wildlife management specialists learn more about mating behavior, feeding, preferred habitat, and other problems vital to grouse management.

\* \* \* \*

Tourist travel is a dynamic industry involving more of rural America. And as this activity grows and involves more of the U. S. population, the nature of the industry and the demands which it is to serve change markedly. The Outdoor Recreation Resources Review Commission indicates that 90 percent of all Americans participated in some form of outdoor recreation in summer, 1960. By the year 2000, the Commission predicts, the demand for recreation should triple.

\* \* \* \*

Where a smaller yield may pay off. Early hay cutting may produce less total forage per acre, but the improved quality means extra dollars because of better quality forage, according to W. F. Hueg, assistant director of the University of Minnesota Agricultural Experiment Station. Forage digestibility declines about a half of 1 percent each day after June 1.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
May 7, 1963

Immediate release

## HERE'S HOW TO REMOVE SPECIFIC STAINS ON RUG

Water and dry cleaning fluid are the best home remedies for removing spots from rugs.

Important as it is to choose the proper cleaner to remove specific spots, quick action in removing spills will often determine whether a stain will be permanent, says Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota.

Stains fall into three categories: greasy, nongreasy and combination types.

Remove greasy stains by sponging with a dry-cleaning fluid, Mrs. Zabel suggests. Allow to dry and then repeat if necessary.

Sponge nongreasy stains with cool water. If the stain remains, use a solution of water, mild detergent and white vinegar in the proportion of 1 teaspoonful of detergent and 1 teaspoonful of vinegar to a quart of warm water.

Treat combination stains, caused by both greasy and nongreasy substances, first with water, then with grease solvent.

When using dry-cleaning fluid, use it only in small amounts and in a well ventilated room, Mrs. Zabel cautions. Any grease solvent or dry-cleaning fluid presents a hazard to the user. Avoid breathing the vapors, and wash off any solvent spilled on the skin. Do not use flammable liquids where they could be ignited by flames, pilot lights or electric sparks.

Whether you are using a dry-cleaning fluid, water or other solvent, use only enough to dampen the stain, Mrs. Zabel advises. Otherwise the solvent will spread the stain beyond the outer edge.

Here are Mrs. Zabel's suggestions for treating some common stains:

- . Fruit and fruit juices. Blot up with damp cloth. Sponge several times with clear warm water. Follow with detergent solution. Rinse.
- . Milk and milk products. Sponge with detergent solution, rinse.
- . Ballpoint ink: Sponge with acetone. Use amyl acetate on acetate, Arnel, Dynel and Verel.
- . Chocolate and cocoa. Sponge with lukewarm detergent solution, rinse. Sponge chocolate stain with solvent afterward to remove any grease.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
May 7, 1963

Immediate release

#### PERUVIAN GIRL IS FIRST MINNESOTA IFYE DELEGATE IN '63

The first of 11 International Farm Youth exchangees (IFYE) will arrive in Minnesota May 9.

She is Maria Angeles, a nurse from Lambayeque, Peru.

Miss Angeles will spend three months living and working with farm families in Minnesota. From May 11 to June 25 she will live with farm families in Martin County. Before going to another county she will attend the Junior Leadership Conference on the St. Paul Campus June 25-28.

Because of her interest in nursing, Miss Angeles hopes to learn about 4-H community service projects and the organization of 4-H Clubs and hospitals. She is also interested in poultry husbandry, music and recreation as they relate to the 4-H program. When she returns home, she hopes to work with the Agricultural Extension Service of Peru, which has helped to sponsor her trip.

The IFYE program is sponsored by the National 4-H Club Foundation and the Agricultural Extension Service to promote better world understanding at the grass roots level.

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63-141-kmr

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
May 7, 1963

Immediate release

## MORE FFA CONTEST WINNERS NAMED

Several FFA contest winners were named today during the annual state Future Farmers of America . convention on the St. Paul Campus of the University.

Roger Hardy, Sacred Heart, received the Farm House Leadership Award for extensive participation in school and community organizations in recent years.

Farm House is a student fraternity on the St. Paul Campus.

The Albert Lea, Alden, Freeborn, Fairmont, Kimball, Nicollet and Sioux Valley FFA chapters were awarded certificates as winners of the 1962 "Corn Drive for Camp Courage". They were among the 72 chapters which contributed, from sales of gleaned corn, more than \$12,563.74 to be used to finance Camp Courage for crippled children near Annandale.

The Alexandria chapter won the FFA cooperative award, based on classroom study in cooperative organizations. The Alexandria FFA chapter gets expense-paid trips for the chapter adviser and four officers to the Minnesota Association of Cooperatives meeting in St. Paul Oct. 28 and 29, and to the American Institute of Cooperatives meeting in Lincoln, Nebraska, Aug. 5-8. The Paynesville chapter placed second and the Frazee chapter placed third in the cooperative contest and will also receive MAC meeting travel awards.

Twelve FFA chapters received gold medal certificates from the Farm Section of the Minnesota and National Safety Councils for participation in the Safe Corn Harvest program last fall. The chapters were Austin, Wabasha, Westbrook, Blooming Prairie, Faribault, Hills, Le Center, Olivia, Ortonville, Pine Island, Sanborn, New Ulm, Sacred Heart, St. Charles and Winnebago. Each chapter promoted safe corn harvest practices among local farmers.

The Minnesota FFA Association presented special certificates to LaVern Freeh, director of agricultural short courses at the University, and E. O. Johnson, State Commissioner of Education, for their encouragement and support of the FFA program in the state.

(more)

add 1 -- FFA contest winners

A desk pen set was presented to Wayne Broecker, New Richland, agriculture instructor, for his service as a member of the State FFA Board of Directors.

Wesley Seitz, accordionist from Blackduck, was named first place winner in the FFA talent contest. He will receive an expense-paid trip sponsored by the F. H. Peavey & Co., Minneapolis, to the North Dakota FFA Convention in June.

Second place in the talent contest went to an instrumental combo from Cyrus chapter: Members are Marlyn Olson, Karl Ritzloff, Ronnie Kjedahl, Charles Barsness, and Gil Ahlstrand.

Third place went to Greg Mullerlieb, Cleveland.

Canby is the first place winner in the 1962 State Chapter Contest and will receive a plaque from the St. Paul chapter of Alpha Gamma Rho Fraternity. Chapter award program entries from Faribault, Ortonville, Stillwater and Canby received state gold emblems and will now be entered in national competition.

Minnesota FFA chapters which received superior awards include: Ada, Adams, Albert Lea, Alberta, Alexandria, Appleton, Barnesville, Blooming Prairie, Brainerd, Clarkfield, Danube, Staples, Farmington, Fisher, Evansville, Fertile, Forest Lake, Frazee, Fulda, Glenville, Hastings, Halstad, Hibbing, Hills, Lakeville, Le Center, Lewiston, Lyle, Mapleton, Minnesota Lake, Montgomery, Morgan, Motley, Mountain Lake, Olivia, Owatonna, Redwood Falls, Sacred Heart, St. James, St. Peter, Sanborn, Slayton, Springfield, Tyler, Wells, Willmar, Winona and Winthrop.

First place winner in the first annual statewide FFA creed contest was Daryle Bright, Cyrus. Other winners were Ray Nord, Bemidji, second, and Peter Koperski, Pine Island, third.

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63-140-pjt

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
May 9, 1963

Immediate release

### PERCENT OF FARMS OPERATED BY OWNERS DECLINES

While farm numbers have been going down in Minnesota, farm ownership has followed a variable pattern over the years.

Proportion of Minnesota farms operated by full owners was nearly two-thirds in 1920, about half in 1935 and since then has climbed to nearly 60 percent. Meanwhile, proportion of tenants reached a peak in 1935 and has since declined.

Farms where part of the land is operator-owned have increased almost steadily from 11 percent of all farms in 1920 to 24 percent in 1959.

An analysis of these changes is offered by agricultural economists A. R. Wells and S. A. Engene, in the current issue of Farm Business Notes, a University of Minnesota Agricultural Extension Service publication.

Looking back to the early years, they list three main reasons for the drop in ownership between 1920 and 1935. First, with low agricultural prices and incomes in those depression years, many farmers simply couldn't accumulate enough capital to buy a farm. Second, some farmers couldn't meet debt payments and were foreclosed, or turned their farms back before foreclosure proceedings started. And third, with limited nonfarm job opportunities in the '30s, off-farm migration slowed and more people stayed in rural areas as potential tenants.

After the mid-thirties, the percent of tenants operating farms was nearly cut in half. And the percent of part owners increased by one-half. So along with the increase in full owners, four out of five Minnesota farmers owned at least part of their land by 1959.

(more)

add 1 -- farm ownership

Why was there such a marked shift back to ownership? The first factor, say Wells and Engene, was the steady increase in agricultural prices during the forties. Farm incomes went up faster than expenses. Many farmers accumulated money enough to buy outright or make a downpayment on a farm. And in spite of a steady downward pressure on agricultural prices since 1950, the percent of full owners has stayed fairly constant.

A second factor is mechanization, which has made it wise for farmers to spread fixed machine costs over more acres. With high land values and with capital tied up in machinery, many owners have rented additional land. On the other hand, some tenants had to buy to secure additional land, thereby adding to the large percentage increase in part owners.

Tenancy is highest in Minnesota's 18 southwest counties, where 30 percent of the farmers rent all their land. The percentage falls to 5 percent or less in 22 northeastern counties.

Wells and Engene believe that farm tenancy in Minnesota may have reached its lower limit. They reason this way: Assume that the average farm owner operates his farm for 40 years before retiring. If the farm is a good investment, he will want to rent it and live off the income. So if he lives another 10 years, one farm in every five will be tenant-operated.

Another point is that if downward pressure on agricultural prices continues, percent of farm ownership could decline--somewhat as it did in the depression years. Such pressure, along with high farm and machinery costs, could make future buying difficult.

On the other hand, increase use of land purchase contracts and improved credit sources help young men with good reputations to buy with lower reserves than was true in past years.

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May 9, 1963

Immediate release

## BEEF AND PORK GOOD BUYS THIS WEEK

Food shoppers will find good buys in beef and pork this week--and probably throughout the whole month of May.

For other reasonably priced foods this week, look for specials on ice cream in half gallons, two-pound cans of coffee and three-pound cans of shortening.

Produce sections will be featuring potatoes from the Red River Valley, Florida cucumbers and radishes, Texas onions and carrots, corn on the cob and California strawberries. California is shipping much of its strawberry crop by air this year so that fresh California strawberries may now be purchased on the East coast and even in Europe.

Mary Ryan, extension consumer marketing specialist at the University of Minnesota, says wise shoppers can stretch their food dollars by watching for specials on beef and pork and buying the less popular cuts, which usually have lower price tags. But to be sure of saving money, check the number of servings per pound and compare cost per serving, she suggests.

Generally a pound of meat with no bone will serve four people. Cuts with a little bone will serve from three to four. A cut with a medium amount of bone such as a rib roast will serve two or three. But short ribs or spare ribs with a great deal of bone will provide only one or two servings per pound. The amount of fat and the size of your family's appetite will vary the number of servings somewhat.

Beef and pork are priced well below seasonal averages because of large supplies. The U. S. Department of Agriculture reports that as much as 10 to 15 per cent more beef is likely to be marketed between April and June this year than during this time last year. Slaughter rates for pork during these months are also expected to be up from last year.

Besides beef and pork, plentiful foods during May will include broiler-fryer chicken, carrots, canned freestone peaches, milk and other dairy products.

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63-144-jbn

Information Service  
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May 9, 1963

Immediate release

## POWER LAWN MOWERS CLIP TOES AND FINGERS, TOO

It's hard to find a messier or more painful way to lose fingers and toes than to get them under a power rotary lawn mower.

Yet in a recent year in the United States, power mowers clipped 50,000 toes and 18,000 fingers and threw rocks and otherwise caused injuries in a total of 70,000 accidents, according to Glenn Prickett, extension safety specialist at the University of Minnesota.

You don't have to be operating a lawn mower to be injured, either. Prickett says more than a third of the mower-caused injuries were to innocent bystanders.

"The blade on a rotary mower travels at 2,000 to 4,000 revolutions per minute," Prickett says. "Rocks and other objects thrown by the blades injured 20,000 children, killing some."

Prickett says that you can help to keep the accident toll down if you follow these rules when mowing:

- . Study your operator's manual so you know how to safely start and stop the machine.
- . Clean your lawn of all debris before starting to mow. Stones, nails and wire can easily be picked up and thrown.
- . Keep children, guests and pets away from area where you are mowing.
- . Mow crossways on slopes, not up and down. Never pull the mower backwards and toward you. It's too easy to get a toe under the machine.
- . Use safety fuel cans when putting fuel into the tank of the motor. Be sure that engine is stopped and has cooled before refueling.
- . Always disconnect the ignition wires before you adjust, repair or unclog the mower.
- . Maintain the mower properly. Keep it clean and the blade sharp and tight.
- . Always shut off the mower when you must leave it for a few moments.
- . Keep all shields in place.
- . Make sure that electrically driven mowers are properly grounded.

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May 9, 1963

Immediate release

#### HOME AGENTS TO HAVE SPRING CONFERENCE

Sixty-six home agents throughout Minnesota will attend their annual spring conference on the University of Minnesota's St. Paul Campus May 14-17.

A major portion of the conference will be devoted to discussions of working with an expanding clientele. Workshop groups will consider ways of adapting methods to specific clientele.

Speakers from out of state who will address the conference include Gertrude Dieken, home editor, Farm Journal, Philadelphia; Mrs. Katharyn Zimmerman, assistant director, Missouri Agricultural Extension Service, Columbia; Candace Hurley, home economics editor, Iowa State University, Ames.

University staff members on the program are Dorothy Simmons, state leader, extension home economics; Roxana Ford, acting director, School of Home Economics; Barbara Conklin, instructor, home economics education; Peter Clarke, instructor in journalism; Howard Newell, district supervisor, county extension work; and Harold Swanson, extension editor.

A meeting of the Minnesota Home Agents' Association is scheduled for Wednesday afternoon.

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63-142-jbn

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
May 14, 1963

To all counties  
Immediate release

IN BRIEF.....

Farm ownership in Minnesota has followed a variable pattern in past years. Since 1920, the proportion of farms under full ownership of the operator has been up, down and up again. Proportion operated by full tenants rose to a peak in 1935 and has declined since then. And proportion of farms where part of the land is operator-owned has increased almost steadily since 1920. Agricultural economists A. R. Wells and S. A. Engene at the University of Minnesota say that tenancy is highest in southwestern counties, where 30 percent of the farmers rent all their land. The percentage falls to 5 percent or less in 22 northeastern counties.

\* \* \* \*

Cankerworms are at it again. Attacks by these little brownish or greenish worms are almost a certainty where they appeared last year. According to John Lofgren, extension entomologist at the University of Minnesota, the only control method to save foliage of infested trees now is a thorough spraying with DDT, methoxychlor, or sevin. Banding the trees or spraying the trunks now is ineffective. The first evidence of these worms is pin holes eaten in the leaves. Cankerworms often attack elm, basswood, boxelder and apple trees, and may show up in maple, oak, ash, and even fruits and ornamentals.

\* \* \* \*

Power mowers incorrectly used may reap a grim harvest. In one recent year, they clipped 50,000 toes and 18,000 fingers and caused other injuries in some 70,000 accidents around the U. S. Some 20,000 children were injured by flying objects thrown by rotary mower blades.

\* \* \* \*

Soil moisture is no great problem this spring in most of Minnesota. Even before the heavy recent rains, a University survey showed, moisture levels were above the wilting point in all of 23 locations studied.

# # # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
May 14, 1963

To all counties  
ATT: HOME AGENTS  
Immediate release

GET FREEZER READY  
FOR NEW CROPS OF  
VEGETABLES, FRUIT

Defrosting the home freezer is one of those jobs most homemakers put off as long as possible -- but done now it's quality insurance for the crop of spring and summer vegetables and fruits you plan to freeze.

Allowing too thick layer of frost to accumulate reduces the efficiency of operation and utilizes too much space, Mrs. Shirley Munson, in charge of the University of Minnesota food processing laboratory, points out. Another reason for defrosting and cleaning out the freezer in spring is to take inventory of foods that are stored, use those that have been stored longest and organize the freezer for the new crops of vegetables and fruits.

When frost becomes 1/3 inch thick, it's time to scrape it from chest-type units, Mrs. Munson says. When the frost is thicker, the chest should be defrosted completely. Since scraping the frost is not as easy with upright models, complete defrosting may be necessary.

For quick methods of defrosting the freezer, follow these suggestions from Mrs. Munson:

Disconnect the freezer. Remove the food, placing it in a paper carton and covering it with a thick blanket to prevent the food from thawing. Place large bath towels in the bottom of the freezer to catch the ice and absorb water. Direct an electric fan into the freezer to loosen the ice and then scrape it off with a wooden spoon, plastic scraper or rubber spatula. Or hasten thawing by placing pans of hot water in the freezer and closing the lid or door for half an hour or so.

After defrosting the freezer, wash the inside with warm baking soda solution (3 tablespoons to 1 quart water) or with a synthetic detergent solution. Wipe dry, turn on the electricity and replace the food after remaining moisture has frozen.

Covering shelves of upright freezers with aluminum foil will make frost removal easier next time.

Information Service  
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University of Minnesota  
St. Paul 1, Minnesota  
May 14, 1963

To all counties  
4-H NEWS  
Immediate release

LOCAL 4-H'ER TO  
CONSERVATION CAMP

\_\_\_\_\_, 4-H Club member from \_\_\_\_\_  
(name) (address)

will attend the Minnesota 4-H Conservation Camp at Itasca State Park to be held June 5-9.

He (she) has been selected to represent \_\_\_\_\_ County because of his (her) interest and participation in conservation or forestry projects.

The campers will attend classes on plants, forestry, entomology and soil conservation taught by University of Minnesota extension specialists.

Special assemblies will feature talks by Glenn Prickett, extension safety specialist at the University of Minnesota, on "Conserving Human Resources," and by Ben Thoma, park naturalist, on "Wildlife in Minnesota."

Other highlights of the camp will be a report by the winners of the Conservation Club Award, a firearm demonstration by David Yaeger, professional shooter for Federal Cartridge Corporation of Minneapolis and a program on Indian folklore.

The group will tour Itasca State Park and see the headwaters of the Mississippi River, eat lunch at the Rapid River Logging Camp and visit the deer park and aquarium in Park Rapids.

At the annual banquet Gerald Maher, Cloquet, will receive the Keep Minnesota Green Award and a \$100 scholarship from Floyd Ryan, executive secretary of the Keep Minnesota Green Association. Mr and Mrs. Joseph Free, archaeologists, will be guest speakers at the banquet, giving a talk and showing slides on their expeditions to the Middle East where they studied archaeology.

(more)

add 1 - 4-H'er to Conservation Camp

The 29th annual Conservation Camp has been planned with the aid of the continuation committee chosen last year. Committee members are Bonnie Finstad, Thief River Falls; Becky Orrack, Zimmerman; Bruce Benson, Center City; and David Baker, Kiester. A new continuation committee will be chosen for next year's camp.

The 4-H Camp is sponsored by the Minnesota Agricultural Extension Service and aided by donations from Charles Horn, president of Federal Cartridge Corporation of Minneapolis. Since its beginning in Minnesota, the conservation camping program has expanded to include many states.

-kmr-

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
May 14, 1963

To all counties  
Immediate release  
(1st of two articles)

VERTICAL CONTRACT INTEGRATION  
RAISES SOME LEGAL PROBLEMS

Suppose a farmer and a livestock firm sign a contract for a hog production operation.

And suppose it's a case of vertical contract integration. Farmer and firm have agreed to share management decisions, in return for assumption of production risks by the firm. In addition, the off-farm firm has supplied some of the resources and has agreed to share profits with the farmer.

Question: What happens if the farmer later on falls into heavy debt, with someone else? Is the contracting firm liable? In other words, does the contract in effect set up a legal partnership or joint venture arrangement?

The answer will depend upon the court's interpretation of the contract -- if, of course, a dispute should arise that leads to legal action.

The general point here is that contracts between farmers and off-farm businesses, in spite of intentions to make all agreements crystal clear, rarely cover all possible disputes. And even for points covered, a contract may be vague.

Legal considerations in vertical integration contracts are no small matter, and have important implication for the future development of such integration in U. S. agriculture. In fact, one University of Minnesota economist, Dale Dahl, says legal problems are one reason why more intensified control of farm production by contract than we have now is unlikely.

The general notion of "vertical integration" has become rather widely discussed in the past decade or so. But it isn't merely a catch-all term for all forms of contracting with off-farm firms.

(more)

add 1 - contract integration

Dahl explains that where vertical contract integration exists, it differs from other contract arrangements in this crucial way: It involves a shift or centralization of managerial control over the related production stages of firms involved.

Under such an arrangement, one or both parties gives up some management control over some phase or phases of the production process. This could mean sharing management decisions, or it may involve shifting control from one party to the other.

With a livestock farmer, for example, vertical contract integration might involve a situation where the off-farm firm actually stipulates certain management practices and helps the farmer decide on others.

Some off-farm control over management, especially indirect control, isn't particularly new. Historically, farmers sometimes have given up some control in return for credit assurances, price premiums, or risk-sharing.

Dahl emphasizes that economic considerations in such contracts are not the only ones for each potential party to study. The legal ones are also paramount.

What approach does a court take in a contract dispute? It will review the written contract, of course. But it will also try to learn the exact nature of the relationship by finding out what was said and done by the parties.

Usually, courts try to apply a general legal status to the parties for certain issues that may arise, Dahl points out. And more than one legal status may apply at one time.

Several legal relationships are possible under vertical integration contracts Dahl considers three of them -- partnership or joint venture, master-servant or agency, and the independent contractor relationships. How each relate to the potential for vertical contract integration will be discussed in the next article in this series.

# # # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
May 14, 1963

To all counties...

Immediate release

'LEAF FEED' FERTILIZER  
IS USUALLY OVER-PRICED

Sharpen your pencil carefully when someone tries to sell you on the idea of fertilizing field crops through "leaf feeding" with small amounts of mixed or complete liquid fertilizers, advises Merle Halverson, extension soils specialist at the University of Minnesota.

"Research findings fail to justify the claims of those who recommend use of these materials at rates of 2 to 5 gallons an acre," he says.

Halverson points out that Ohio researchers tested foliage sprays containing nitrogen, phosphorus and potassium over a three-year period on corn, wheat, alfalfa and sugar beets. They applied sprays at differing rates at different stages of the plant growth. Fertilizers were applied both as supplements to and substitutes for soil-applied, row-placed fertilizers. Not one single trial produced significant yield increases.

One soil was so infertile as to show a 16 bushel per acre corn yield increase when 4-16-8 starter was used at 300 pounds per acre. Yet on the same soil, yields were not significantly increased by four spray treatments of  $2\frac{1}{2}$  gallons each of 5-10-5 liquid applied to leaves when the corn plants were 6, 12, 24, and 36 inches high.

"It isn't that the liquid fertilizers are less effective," Halverson says. "Research has proven them equal in every respect to dry fertilizers when they're applied to the soil in the same manner and at equal rates of actual plant nutrients." The leaf feeding idea breaks down largely because the recommended rates of application doesn't begin to measure up to crop needs.

(more)

add 1 - leaf feed

Figure it out for yourself, Halverson suggests. A 5-10-5 liquid fertilizer weighs about  $10\frac{1}{2}$  pounds per gallon. If sprayed on a crop at 4 gallons to the acre, such a treatment would provide about 42 pounds per acre of solution containing 5 percent nitrogen, 10 percent phosphate and 5 percent potash. In actual plant nutrients that's 2.1 pounds of nitrogen, 4.2 pounds of phosphate and 2.1 pounds of potash per acre. Obviously that amount is too small to meet the needs of any crop growing on infertile soil.

If you figure nitrogen, phosphate and potash cost 15, 10 and 5 cents, per pound respectively, which is about the highest you would pay in conventional fertilizer, the real value of such treatment would be about 17 cents per gallon. You can use the same technique in calculating the value per gallon of other liquids being sold for leaf feeding.

Many times you'll find that the costs are several times as great as if you were to buy conventional liquid or dry fertilizers.

"Don't buy the idea that small amounts of fertilizer at high prices will do the same job as adequate amounts at ordinary prices," Halverson says. "Instead have your soil tested and follow the county agent's recommendations."

# # # #

Information Service  
Institute of Agriculture  
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St. Paul 1, Minnesota  
May 14, 1963

To all counties  
Immediate release

MANAGEMENT IMPROVES  
LEGUME SEED  
PRODUCTION

Every bee is a "queen" when it comes to legume seed production. Bees are needed to pollinate the crop -- without pollination there is no seed. But important as bees are, other practices are essential too.

Up until recent years, Minnesota's production of legume seed increased steadily. This increase is due to good production practices; proven effective on test plots set out by University of Minnesota specialists.

Adequate fertilization, sufficient pollination, and control of harmful insects are essential for legume seed production. If any of these factors is lacking, production goes down.

From their research, the specialists make the following recommendations for legume seed production.

1. Select the proper seed crop: Choose the seed crop best suitable for your soil. Alfalfa prefers a sandy, light textured soil that has rapid internal drainage. Medium red and alsike clovers do best on soils ranging from very fine sandy loam to heavy clays with poor to moderate drainage. Alsike clover will produce abundant seed on textures ranging from wet sands to heavy clays. These textures are too wet for alfalfa and medium red clover.

All legume seed crops do good on soils with a pH ranging from 6.5 to 7.8. However, alfalfa growth may be hindered after a pH of 7.5.

2. Test your soil: Determine your fertilizer requirements. Pay close attention to the phosphate and potash levels of your soil.

(more)

add 1 - management improves production

3. Apply the proper fertilizer: Broadcast the recommended fertilizer the fall or spring before the seed is harvested or at the time of seeding. In Northern Minnesota, 300-600 pounds per acre of 0-20-0 phosphate fertilizer or a phosphate-potash combination is most often used.

4. Provide honey bees for adequate pollination: Place at least two colonies of honey bees per acre of seed crop. If there are neighboring seed crops without colonies of bees, you will have to increase your colonies to allow for bees that will migrate to neighboring fields.

Additional colonies of bees should be placed along the margin of the field. The bees should be placed in the field not later than the beginning of flowering. Don't remove the colonies until the crop is almost out of bloom.

5. Control injurious insects: Spray the seed crop with a DDT emulsion at the rate of one and a half to two pounds of actual DDT per acre. If the bees have already been located in the field at the time of spraying, use toxaphene at the rate of two pounds of actual ingredient per acre. Spraying should be done in the late evening or at night so you won't kill the bees.

Yields increased many times the state average on the test plots where these practices were followed. Consequently, the University specialists strongly recommend that you adopt these practices to obtain optimum yields of legume seed.

# # # #

Information Service  
Institute of Agriculture  
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St. Paul 1 -- tel. 647-3205  
May 14, 1963

Immediate release

## INSPECTIONS COMPLETED IN SHEEP SCABIES ELIMINATION PROGRAM

All inspections under the sheep scabies elimination program in Minnesota have been completed and the state has applied to the U. S. Department of Agriculture for recognition as a scabies-free area.

The program involved close cooperation among owners of the state's 17,873 sheep flock owners and representatives of local, state and federal agencies. Initial inspections under the program began Dec. 17, 1962 and the last reinspections were completed in April.

A total of 16,369 flocks were cleared during the first inspection as showing no apparent symptoms of scabies. The remaining 1,504 were reinspected by state and federal veterinarians, and received a second reinspection within the following two months.

Only 15 flocks were eventually determined to be scabies infected. These and other flocks designated as "suspicious" were dipped and reinspected a month later.

Cooperating in the total program were the University of Minnesota Agricultural Extension Service, vocational agriculture instructors, the Minnesota Department of Agriculture, the Minnesota Livestock Sanitary Board and the U. S. Department of Agriculture.

The greatest impact of scabies, according to Raymond Solac, extension veterinarian at the University of Minnesota, is in its effect on markets. Sheep from infected areas, except those for immediate slaughter, cannot cross state lines without restrictions unless they are going to other infected areas. Wisconsin, South Dakota, North Dakota and Canada already have scabies-free status.

Surveillance will be continued on all state sheep flocks. A selected proportion of flocks will be reinspected annually.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
May 14, 1963

Immediate release

## SOIL MOISTURE ADEQUATE IN MOST OF MINNESOTA, SURVEY SHOWS

Even before the heavy rains of recent days, soil moisture was adequate for farmers in most areas of Minnesota.

Soil climatologist Donald G. Baker at the University of Minnesota says moisture levels are about the same as for 1962. His data are based on samples taken mostly between April 15 and 20, and therefore do not account for more recent rainfall.

Between Sept. 1, 1962 and the sampling dates, precipitation was below normal across the state, except for the Fargo area, where it was about 60 to 90 percent of normal.

However, Baker adds, that decreased precipitation was not particularly serious. A good share of it was, of course, snow, which is seldom very important in increasing soil moisture supplies.

The only appreciable decrease in soil moisture reserves since spring 1962 was in southeastern counties. Even there, however, the situation is not serious.

Soil samples were collected by representatives of the University Agricultural Experiment Station, the U. S. Soil Conservation Service and the Agricultural Extension Service.

Baker's report gives inches of water in soils to a depth of five feet. These levels ranged from a high of 13.02 inches on one farm in Swift County to a low of .62 inches on a Kandiyohi County farm.

These soil moisture levels represent the amount of water above the wilting point, or the point at which moisture is insufficient to support plant growth. In none of the 23 locations reported by Baker were levels below the wilting point, although all were somewhat below the potential capacity of the particular soil.

Recent rains have improved the situation in the surface soil--the only place where soil moisture may have been at a critical stage in some areas.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
May 14, 1963

Immediate release

## TIPS GIVEN ON SAFE BICYCLING

Twelve bicyclists were killed in Minnesota traffic last year and approximately 541 were injured in 537 accidents.

Many of the accidents occurred, according to Glenn Prickett, extension safety specialist at the University of Minnesota, because cyclists did not obey regulations applying to vehicles on streets and highways. These regulations apply to bicyclists as well as to motorists.

A child is old enough to ride a bicycle on the street or highway, Prickett says, when he has learned the rules of the road, how they apply to him as a cyclist, is ready to accept and obey them and is capable of handling his bicycle skillfully. The University safety specialist stressed the responsibility parents have in training the new cyclist before letting him risk his life in traffic.

Whether cyclists are children or adults, there are certain precautions and rules to follow, Prickett points out. He gives these tips for safer bicycling:

- . Have your bicycle checked frequently and always have it in good repair.
- . Avoid stunting and grandstanding in traffic. Leave these for your own yard.
- . Drive on the right side of the road and use proper hand signals for turning and stopping. Cyclists have the same responsibilities as motorists in so far as regulations apply to bicycles.
- . Observe traffic signs and signals. In heavy traffic it is often advisable to dismount and walk with the bicycle across intersections. Dismount and walk across bridges.
- . Avoid cycling at dusk or after dark. Whenever cycling after dark, use a white headlight visible for 500 feet and a red rear reflector which will be visible for 300 feet.
- . Don't take passengers on your bike--unless you're using a tandem bicycle with seats for more than one person.

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May 14, 1963

Immediate release

#### SCHOOL LUNCH WORKSHOPS IN JUNE

School lunch workshops will be held for school lunch personnel in Minnesota during June in Waseca, Morris and St. Paul, according to an announcement from LaVern A. Freeh, head of Agricultural Short Courses at the University of Minnesota.

Scheduled dates for the workshops are June 10-13 at the Southern School and Experiment Station, Waseca; June 17-20 at the University of Minnesota, Morris; June 24-27 at the University's St. Paul Campus.

The University's Institute of Agriculture is sponsoring the sessions with the cooperation of the school lunch section of the State Department of Education. Mrs. Margaret Dayton, director of the school lunch program in Wayzata, is program coordinator.

The three workshops will feature discussions on nutrition, the Type A lunch and public relations. Opportunities will be given for group study of menu planning and school lunch management, as well as for individual conferences on school lunch problems with qualified staff members. New products and small equipment will be on exhibit. Demonstrations on time and motion-saving methods will be highlighted at Waseca and Morris. Steam cooking and labor-saving tricks will be among demonstrations given at St. Paul Campus sessions.

Information on the school lunch workshops is available from the Department of Agricultural Short Courses, Institute of Agriculture, University of Minnesota, St. Paul 1.

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63-146-jbn

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
May 16, 1963

Immediate release

#### EXPERIMENT STATION FIELD DAYS SCHEDULED

Farmers throughout the state will have opportunity to inspect at first hand some of the latest developments in agriculture during a series of experiment station field days scheduled during July.

William Hueg, assistant director of the Agricultural Experiment Station, University of Minnesota, says that emphasis of the field days will be on crops and soils.

"Visitors will have an opportunity to see new and recommended varieties of small grains, forage crops and soybeans. They also can see the results of such projects as weed control by both cultural and herbicide, crop rotations and soil fertility studies."

Livestock projects will be displayed at some stations. There will be noon-time speakers programs. Lunches will be available on the grounds or visitors can bring picnic hampers.

The field day schedule is as follows: July 6, Lamberton; July 9, Rosemount; July 10, Waseca; July 11, Morris, July 16, Crookston; July 25, Grand Rapids; and July 26, Duluth.

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63-152-pjt

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
May 16, 1963

Immediate release

#### DEAN MACY TO BE RECOGNIZED AT ST. PAUL CAMPUS EVENT

Harold Macy, dean of the University of Minnesota's Institute of Agriculture since 1953, will be recognized by his University colleagues at a special St. Paul Campus reception Thursday, May 23.

Macy is retiring June 30 after 44 years on the University staff. His position will be filled by Sherwood O. Berg, currently head of the agricultural economics department.

A dairy bacteriologist by training and experience, Macy joined the University staff in 1919. He was a staff member in dairy husbandry until 1946 when he became director of the Agricultural Experiment Station. He was appointed dean in 1953.

Originally from New York, Macy received a B. S. degree from Cornell University in 1917 and a Ph. D. from Iowa State University in 1929.

He served in the Army nearly a year in World War I, and during World War II he served more than two years, mostly in Europe as a member of the Sanitary Corps. His military decorations include Chevalier, Order of Public Health; and Chevalier, Legion of Honor, which he received in France in 1945, and the Armed Forces Reserve Medal.

In addition to military leave during World War II, Dean Macy has been granted three leaves to serve in foreign countries. These include: January-April, 1952, to participate in a survey of agricultural research institutions of Latin America sponsored by the Technical Cooperation Administration; February 20-March 16, 1954, when he was a member of a commission to Seoul National University of Korea for the Foreign Operations Administration; and March 8-May 31, 1956, to serve as agricultural research consultant for the International Cooperation Administration, for duty with the Office of Economic Coordinator, United Nations Command, in Korea.

(more)

add 1 -- Dean Macy to be recognized

As a researcher in dairy bacteriology, Macy is the author of 150 articles, largely in professional journals, and is co-author of the book, Milk and Milk Products, with C. H. Eckles and W. B. Combs.

Dean Macy is a member and holds office in a large number of honorary and professional groups. These include:

American Dairy Science Association--chairman of dairy products section, 1934, and board of directors, 1938-39; American Society for Microbiology--president, North Central Branch, 1939-40; Gamma Sigma Delta--president of the Minnesota chapter, 1942, historian and executive committee member, 1960-61; Sigma Xi--president of Minnesota chapter, 1942.

Other offices and committee chairmanships include:

Chairman, advisory committee, Mayo Forestry and Horticultural Institute, 1947-48; Hormel Institute Board--executive secretary and technical adviser, 1949-53; vice chairman, State Soil Conservation Committee, since 1953; president, Dairy Council of the Twin Cities, a unit of the National Dairy Council, since 1956; and president, Rotary Club of St. Paul, 1958-59.

In the Association of Land Grant Colleges, Dean Macy has served in several positions. These include: membership on the executive committee, 1953-55, and the Committee of Nine, 1953-54; member of the executive committee, Division of Agriculture, 1953-55, and chairman, 1954; member of the Senate, 1953-55. Since 1954, he has been a member and in 1958-59 was chairman of the Advisory Board, National Agricultural Extension Center for Advanced Study.

His honors include an award in January, 1961, by the Minnesota chapter of the Soil Conservation Society of America for distinguished service to conservation by advancing the art and science of good land use. He was elected an honorary member of the Minnesota Veterinary Medical Society in 1958 and of Phi Zeta in 1959.

In the past two years, he has been honored by the Minnesota Sanitarians Association; the North Central Cheese Industries Association; the University's Agricultural Extension Service; the Minnesota Crop Improvement Association; the Minnesota Dairy Products Association; the Minnesota Rural Artists Association; the Minnesota Future Farmers of America and the Northwest School of Agriculture, Crookston.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
May 16, 1963

\*\*\*\*\*  
\*For release Friday p.m., \*  
\* May 17 \*  
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## TWO MINNESOTANS HONORED BY USDA

WASHINGTON, D.C.-- Two Minnesotans were among 101 persons honored in Washington, D.C., today (Friday a.m.) by the U. S. Department of Agriculture.

Harold Swanson, professor and editor, Institute of Agriculture, University of Minnesota, and M. B. Dickerman, director, Lake States Forest Experiment Station, U. S. Forest Service, St. Paul, received Superior Service Awards in ceremonies held in the Sylvan Theater on the Washington Monument Grounds. Vice President Lyndon B. Johnson delivered the ceremony address and Secretary of Agriculture Orville L. Freeman presented the awards.

Swanson was cited for "notable achievement in initiating, developing, and conducting communications training programs that have resulted in improved dissemination of information from land-grant colleges, and in setting up and administering related communication innovations and activities that have greatly increased the flow of information to those interested in agriculture, homemaking, and public affairs."

Dickerman's citation read: "For outstanding achievement in mobilizing the Lake States regional resources for cooperative research, including the intensive training of departmental employees; and for significant improvement in federal research facilities."

A native of Minnesota, Swanson is a staff member of both the University and the U. S. Department of Agriculture. Since 1948 he has been extension editor and head of the Institute of Agriculture's Information Service which handles teaching of agricultural journalism, communications research, reporting of research results, editing of bulletins, and preparation of teaching aids.

(more)

add 1 -- two Minnesotans honored

Swanson was graduated from the University of Minnesota in 1939 magna cum laude and received his M.S. degree at Minnesota in 1949. He began his journalism career as advertising manager for the Plainview, Minn., News in 1939 and then joined the University staff as assistant editor in charge of agricultural bulletins. He was born in Maple Lake, Minn.

Active in professional organizations, he is vice president of the Extension Journal, Inc., has been president of the American Association of Agricultural College Editors and of the Twin Cities USDA Club.

Dickerman has also served as president of the Twin Cities USDA Club.

Born in Hamden, Conn., Dickerman earned a B.S. degree from the University of Connecticut and an M.S. from the University of California. He joined the U. S. Forest Service 25 years ago and worked in the national forests of Missouri. He later was assigned to forest economics research at the Northeastern Forest Experiment Station until 1941 when he was transferred to the Lake States Station to help expedite timber products shipment in the war effort.

Later in the war, Dickerman was appointed chief forester with the Allied Control Commission in Rome, Italy. He spent two years in Italy and Greece, developing the forestry associations of those countries and helping them reestablish their forest industries.

Upon his return to the United States in 1946, Dickerman was made chief of forest economics research at the Northern Rocky Mountain Forest Experiment Station at Missoula, Mont. In 1951 he was promoted to his present position at the Lake States Forest Experiment Station.

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63-150-jbn

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
May 21, 1963

To all counties  
Immediate release

FORAGE STUDIES  
SHOW VALUE  
OF EARLY CUTTING

Three years of forage studies at the University of Minnesota have left no doubt about the value of cutting hay early.

The studies show that for each day of delay in cutting hay after June 1 the feeding value of that hay drops by about 1 percent per day.

Of the total change in total digestible nutrients about 56 percent is during these first two weeks of June.

These are some results of studies between 1960 and '62 under the direction of William F. Hueg, Jr., formerly extension agronomist and now assistant director of the Agricultural Experiment Station at the University.

Hueg emphasizes that while early cutting may produce less total forage from each acre, the better quality means extra dollars from livestock feeding because of better use of the forage.

Early cutting is most critical with first crop hay. With alfalfa-brome mixtures, the production of total digestible nutrients can be equal to that from about 100 bushels of corn per acre. This forage had nearly three times as much protein as corn.

However, forage compares well with corn only when it has been cut early and handled properly.

Some of Hueg's trials involved cutting on or before June 14 and then taking two more cuttings during the rest of the summer. Other treatments involved taking the first cutting either June 23 or July 1 and then getting only one more cutting during that summer.

Yields of protein were 200 to 300 pounds more, and yields of TDN were 300 to 600 pounds more from three cuttings, compared with two. Hueg says this extra protein or TDN will more than pay for the extra trip over the field

add 1 - forage studies

Therefore, Hueg claims, total yield of forage per acre is a poor basis for determining the success of a forage program. He says that the improved quality of early cutting, figuring a 3-ton per acre yield, means \$18 to \$27 dollars more income from each forage acre.

This extra value can best be shown when the forage is fed to livestock. The extra protein and TDN from the three cuttings mean more animal production. An extra 300 pounds of protein and 400 pounds of TDN will produce about 1,000 pounds of milk. At \$.03 per pound, this is \$30 extra income from each acre of early cut forage.

Hueg recognizes that extra equipment, such as hay conditioners, mow drying systems or a new silo may be needed for early cutting. But he adds that the improvement you get from early cutting on 6 to 9 acres of hay crop forage producing 3 tons per acre will meet the annual cost of such equipment.

Finally, Hueg says, 3-time early cutting is a must when commercial fertilizer is used on forage crops. Fertilizer can't do the job by itself. But used in combination with timely harvest, it can bring more pounds of protein and TDN from each forage acre.

# # # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
May 21, 1963

To all counties

Immediate release  
(2nd of two articles)

VERTICAL INTEGRATION  
MAY INVOLVE SEVERAL  
LEGAL SITUATIONS

When a farmer and a non-farm firm draw up a contract for production on the farmer's land, one major question stands out:

Is the farmer an independent contractor? Or is the arrangement really a partnership, or even a master-servant setup?

Should the two parties get into a legal dispute, it's up to the court to define the relationship regardless of the wording of the contract. Also important is what has been said and done by the parties.

This problem of legal relationships in vertical contract integration has been studied by Dale C. Dahl, agricultural economist at the University of Minnesota.

Why is knowing the legal status so important? Dahl explains that depending upon the status as determined by a court, an off-farm contractor may or may not be held liable for such things as the farmer's debts in relation to the contract.

The off-farm firm may also be accountable for negligence of the farmer and his employees.

The off-farm firm usually has such liabilities only when his arrangement with the farmer is other than that of an independent contractor.

How does a court seek to determine whether a partnership or joint venture exists? There are several kinds of evidence. The courts may find profit-sharing in price and quality premiums offered the farmer. There also may be evidence of risk-sharing. Or there may be joint ownership of production resources where the farmer gets seed, feed, or animals from the firm.

-more-

add 1 - vertical contract integration

Take a look at an example. A farmer might lease his land to a company, which in turn hires the farmer to produce vegetables. The company supplies seed and fertilizer but has complete control over how the crop is grown. Is the firm an independent contractor in such a case? Not very likely; should a legal case arise, a court would probably define this as a master-servant relationship.

Consider another case. A farmer might agree to provide land and buildings for a hog raising operation, and a non-farm firm supplies management advice, feed, and feeder hogs themselves. The firm agrees to sell the hogs when grown and split the profits with the farmer. Again -- even though the wording may call this an independent contract situation -- a court might very well define it as a partnership or joint venture situation, with all the implications for legal liabilities that follow.

In other words, Dahl explains, whether there is a situation other than an independent contract depends upon the degree of control exercised by the off-farm firm and the nature of the risk, resource, and profit sharing involved.

The contractor's liabilities for what the farmer does are at a minimum when the legal relationship is that of an independent contractor. Under this relationship, the contractor agrees to a certain job for a stated price under certain specifications. Then the farmer's everyday work is not under control of the firm. Instead, the major control lies in the contract requirements concerning the end product.

Dahl says most vertical integration contracts try to create an independent contractor relationship. When that is true, the amount of control that an off-farm party can exert is limited by the risk he is willing to take in having this contract construed in the courts as something else.

This legal deterrent, Dahl says, serves as a check against any extensive shift in management control from farm to non-farm business interests.

# # # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
May 21, 1963

To all counties  
Immediate release  
(1st of four articles)

ECONOMIC GROWTH  
HAS DIFFERENT EFFECTS  
IN DIFFERENT AREAS.

Community leaders in two rural Minnesota counties might be puzzled if they tried to figure out why their areas differed so much.

In the first county (let's call it County A) there was a net population loss of more than 2,600 people between 1950 and 1960. The employed labor force went down by more than 600 in this same period.

In the second one, (County B) the total population increased by more than 7,000 people and the number of employed persons went up by more than 6,000 during the 1950's.

People around Minnesota are asking: Why do some areas show rapid growth in population and income while others stand still or actually decline?

A University of Minnesota extension economist, Paul Hasbargen, explains these divergent trends as direct results of stresses resulting from economic growth of the country as a whole. Growth means change. And change means adjustments which may differ considerably from one area to another.

Growth, Hasbargen says, may be conceived of in several different ways. In general, it means the increased capacity of an economy to produce marketable goods and services as well as leisure. Hasbargen says growth is usually thought of in one of two different ways.

(1) As volume of production, normally measured by gross national product of the country as a whole. The measures for specific areas in the country are in terms of total personal income and the volume of employment which is also reflected in numbers of people in the area.

(2) As changes in individual and family welfare, which might be measured by income per person or per family, and also by length of the work week and amount of leisure.

add 1 - economic growth

Hasbargen uses these growth measures to contrast the growth of the two counties mentioned above -- one growing and one declining. County A, the declining county, had a per capita income in 1960 of \$1,000, in comparison to a per capita income of \$1,900 for County B. In County A, almost half the families had incomes under \$3,000 and only 16% had more than \$6,000.

On the other hand, only 17% of the families in County B had incomes under \$3,000, whereas half were over \$6,000.

In terms of averages, per capita income increased during the 1950's by 70% in County B, compared to only 12% in County A. In the latter case, this increase was not enough to keep up with the rate of inflation. In fact, the consumer price index rose 24 percent during those ten years. Therefore, real income per person was actually lower in 1960 than in 1950 for that declining county.

Paul Hasbargen says that as a national economy moves forward, one can expect considerable variation in growth rates by different areas or counties. If a community is to plan adjustments that coincide with and facilitate growth, its leaders must understand thoroughly the forces shaping growth. Some of the questions community planners must ask and get answers for are these.

- (1) How is change directed in a capitalistic society?
- (2) What is the role of agriculture in economic growth?
- (3) What is the growth potential of predominantly agricultural areas in the state?
- (4) What are some adjustment problems that must be faced in growth areas as well as declining areas of economic activity?

Future articles in this series will consider these kinds of questions.

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Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
May 21, 1963

To all counties  
Immediate release

IN BRIEF.....

Sheep scabies inspections complete. All of Minnesota's 17,873 sheep flocks have been inspected under the sheep scabies elimination program. Those not cleared in the first round of checks have been re-inspected, the infected ones have been dipped, and the state has therefore applied to the U. S. Department of Agriculture for recognition as a scabies-free area. Only 15 flocks were eventually determined to be infected with scabies. The major importance of scabies-free status, according to Raymond B. Solac, extension veterinarian, is in the effect of such status on markets. It will mean freedom to move sheep to other scabies-free areas with fewer restrictions.

\* \* \* \*

Crops and soils days scheduled. The annual round of field days has been set for the University of Minnesota branch experiment stations. Visitors will see new and recommended varieties of small grains, forage crops and soybeans. They will view results of cultural and chemical weed control, crop rotations, and soil fertility experiments. The schedule for the field days is: Lamberton, July 6; Rosemount, July 9; Waseca, July 10; Morris, July 11; Crookston, July 16; Grand Rapids, July 25; and Duluth, July 26.

\* \* \* \*

Cutworms and corn fields: Cutworms attack just after young plants emerge. You can spot the damage by looking for leaves severed from young plants, or for plants cut off just at or below ground level. John Lofgren, extension entomologist at the University, suggests a spray of toxaphene, dieldrin or endrin. Direct the spray on the corn rows.

\* \* \* \*

Cold weather and light snow had little effect on the overwinter population of corn borers, according to the Minnesota Department of Agriculture Plant Industry Reporting Service. About 17 percent of the cornborers winter killed. This means that the western tier of states which had a cornborer population of nearly 90 insects per 100 corn plants last fall probably will have a sizeable hatch of cornborers. Other corn growing areas which had fewer than 40 borers to 100 plants last fall will have a less serious hatch.

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Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
May 21, 1963

To all counties  
ATT: Home Agents  
Immediate release

MODERATION IN  
VITAMINS AND  
MINERALS URGED

More moderation in eating habits and in intake of food supplements is recommended by a University of Minnesota nutritionist, Mrs. Margaret Doyle.

Overnutrition, regarded as a major nutrition problem in this country, is evident in the number of overweight men, women and children. But overnutrition has another aspect not generally considered, Mrs. Doyle said -- possible excesses in our intake of some of the vitamins and minerals.

Improved methods of food production, distribution and technology have provided abundant food supplies in this country. When individuals start supplementing an adequate diet with further food supplements in the form of vitamins and minerals they may possibly be courting danger as well as wasting money, Mrs. Doyle maintains.

In the past, recommended intakes of vitamins, minerals and protein have been made on the theory of providing the amount that will take care of those with the greatest needs. But the time has come to "walk the middle road," taking into consideration also the individuals whose requirements are not great. In the case of certain vitamins and minerals we should be thinking in terms of possible excesses rather than only of deficiencies, Mrs. Doyle says.

She cited case histories reported in the Journal of the American Medical Association of a number of children who had suffered permanent bone damage as a result of excessive vitamin A intake in infancy and early childhood. In nearly every instance the mother had greatly exceeded the vitamin intake recommended by the physician, in one case giving a child three teaspoons instead of the prescribed three drops of vitamin preparation. Cases of excess intakes of vitamin D due to similar causes have also been reported.

Most individuals can supply all of their nutritional needs within the framework of a varied diet containing an assortment of dairy products, meats, vegetables, fruits and cereal products. Let your doctor prescribe the kind and amount of any additional nutrients, the University nutritionist suggested.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
May 21, 1963

To all counties  
4-H NEWS  
Immediate release

COUNTY 4-H'ER TO  
ATTEND HEALTH CAMP

\_\_\_\_\_, 4-H Club member from \_\_\_\_\_  
(name) (address)  
will represent \_\_\_\_\_ County at the Minnesota 4-H Health Camp  
at the University of Minnesota Forestry and Biological Station at Itasca State  
Park, June 9-13.

\_\_\_\_\_ was chosen as a delegate to the 1963 Health Camp  
(first name)  
because of his (her) interest and outstanding accomplishments in the 4-H health  
project. (Add any items of personal interest about winner)

Highlights of the camp program include workshops and discussion sessions  
covering the topics of "Torso Tune-Up," physical health; "Be at Ease," social  
behavior; "Think Straight," mental attitudes and outlook; and "Healthy Sur-  
roundings." These sessions will be led by Mrs. Claudia Woker, assistant state  
4-H Club leader and Mrs. Eleanor Gifford, district home economics supervisor  
at the University of Minnesota; Dr. Sidney Finkelstein and Myhren Peterson  
from the Minnesota Department of Health.

A new feature of the Health Camp this year is an assembly on career ex-  
plorations in the fields of health. Panel members are from the Minnesota  
State Department of Health and include Dr. Finkelstein, representing the  
medical profession; Irene Anderson, a nurse; and Miriam Karlins, director of  
public information and volunteer services, particularly in mental health.

Other assemblies include a talk on "Safe Living," by Glenn Prickett,  
extension safety specialist and "Civil Defense" by Clifton Halsey, extension  
civil defense specialist, both from the University of Minnesota.

Nature hikes, a tour of the park, a banquet featuring Dr. Joseph Free,  
archaeologist, and a candlelighting ceremony and the election of new continua-  
tion committee members round out the camp program.

Donna Johnson, Pine City; Bonnie Gustafson, Maple Plain; Don Sandborg,  
Butterfield; and Mike Kennedy, Albert Lea, members of the continuation  
committee, helped plan the camp program.

The 4-H Health Camp Program began in Minnesota in 1953. It is sponsored  
by the Minnesota Agricultural Extension Service with financial assistance from  
the Folger Coffee Company of Kansas City, Missouri.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
May 21, 1963

Immediate release

#### 4-H'ERS TO ATTEND CONSERVATION CAMP

About 100 4-H'ers representing nearly every Minnesota county will attend the State 4-H Conservation Camp June 5-9 in Itasca State Park at the University of Minnesota's Forestry and Biological Station.

The 1963 Conservation Camp has been planned with the aid of the continuation committee chosen last year, according to Stanley Meinen, assistant state 4-H Club leader at the University of Minnesota. Committee members are Bonnie Finstad, Thief River Falls; Becky Orrack, Zimmerman; Bruce Benson, Center City; and David Baker, Kiester.

The campers will attend classes on plants, forestry, entomology and soil conservation taught by University of Minnesota extension specialists.

Special assemblies will feature talks on conserving human resources by Glenn Prickett, extension safety specialist at the University of Minnesota, and Minnesota wildlife by Ben Thoma, Itasca Park naturalist.

At the annual banquet Gerald Maher, Cloquet, will be presented with the Keep Minnesota Green Award and a \$100 scholarship by Floyd Ryan, executive secretary of the Keep Minnesota Green Association. Mr. and Mrs. Joseph Free, archaeologists, will be guest speakers at the banquet, showing slides on their expeditions to the Middle East where they studied archaeology.

Other highlights of the camp will be a report by the state winners of the Conservation Club award and a firearms demonstration by David Yaeger, professional shooter for Federal Cartridge Corporation of Minneapolis.

During the week the group will tour Itasca State Park, visit the headwaters of the Mississippi River, eat lunch at the Rapid River Logging Camp and visit the deer park and aquarium in Park Rapids. A highlight of Thursday will be a program on Indian folklore, arranged by Floyd Jorgensen, Beltrami County extension agent.

The 4-H Camp is sponsored by the Minnesota Agricultural Extension Service and aided by donations from Charles Horn, president of Federal Cartridge Corporation. Since its beginning in Minnesota, the conservation camping program has expanded to many states with camps sponsored by Federal Cartridge.

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63-153-kmr

## TEST PROGRAMS SHOW VALUE FOR SWINE

Swine testing programs have shown their value in improving hog performance, according to a summary of data from the Minnesota Swine Evaluation Stations.

Minnesota swine breeders have been making good use of the Swine Testing Stations which are under the supervision of the University of Minnesota Agricultural Extension Service. Irvin Omtvedt, extension animal husbandman at the University, points to some of the changes in test station performance since 1959.

1) Between 1959 and 1962, pounds of feed required per hundred pounds of gain by test hogs decreased 6 pounds, while carcass quality improved markedly.

2) Among Duroc hogs tested at the stations, feed requirement per hundred pounds of gain was reduced by 17 pounds in the past four years. Considering feed at \$60 per ton, this represents a saving of \$1.02 in feed costs on every pig marketed.

3) Changes in carcass meatiness were even more striking--an increase of 0.8 inch in length, 0.54 square inch in loin eye area, and 1.9 percent in ham and loin. Backfat thickness went down by 0.11 inches.

Omtvedt points out that one of the major goals of a testing program is to develop strains of hogs that have more meat in the higher priced cuts. The 1.9 percent increase in ham and loin yield amounts to about 3.8 pounds more ham and loin in a 200 pound market hog. At present prices this is worth approximately \$1.30 more per hog marketed.

Why is swine testing so important? Omtvedt says that about 30 percent of the hogs marketed rate as desirable meat type. So while producers have improved rate and efficiency of gain, they have a big job ahead in quality improvement. How fast they improve depends on their selection of boars and gilts who contribute good genetic material for the next generation.

(more)

add 1 -- value for swine

In swine improvement, heritability and economics must be considered together. In general, sow productivity, rate and efficiency of gain, carcass desirability and soundness have the greatest economic importance.

One problem is that most carcass traits have a relatively high heritability, while sow productivity traits are quite low. This, Omtvedt says, means you would expect more improvement from selecting for meatiness than from selecting for litter size. Therefore, much stress has been placed upon carcass measurements in the swine testing programs.

Minnesota's testing programs were established in 1957. The Minnesota Swine Producers' Association operates two testing stations--one at Austin and one at New Ulm. These stations have a total capacity of 512 pigs (120 at Austin and 392 at New Ulm.)

Last year 101 Minnesota breeders tested 724 pigs at the two stations.

Pigs are delivered to the Testing Station in groups of four weighing between 40 and 55 pounds each and are started on tests when the four average 60 pounds. The four pigs are penned together and are slaughtered at 200 pounds. At the end of the test, each breeder gets a complete performance report along with comments and suggestions concerning his breeding program.

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63-154-pjt

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
May 23, 1963

Immediate release

## VEGETABLES PLENTIFUL FOR SALAD BOWL

Fresh produce bins at your retail store are heaped high this week with crisp fresh vegetables for the salad bowl.

Locally grown vegetables are beginning to come to market in good supply and are selling at reasonable prices, reports Mary Ryan, extension consumer marketing specialist at the University of Minnesota. Among these are radishes, green onions and asparagus.

Western lettuce and cucumbers and green peppers from the South are also in good supply.

Miss Ryan gives consumers these suggestions on selecting high-quality fresh vegetables and on storing them:

- . Radishes. Choose radishes that are well formed, smooth, firm, tender and crisp. Avoid those that are coarse, dry or yellow. Wash, remove the tops and keep radishes either in a plastic bag or in the vegetable drawer of the refrigerator.

- . Green onions. Look for fresh green tops and medium-sized necks. Avoid bruised, yellowed, withered or damaged tops. Refrigerate in the vegetable drawer.

- . Asparagus. Select firm, fresh, bright green stalks with tightly closed tips. Avoid asparagus which is wilted, has spreading tips or is angular in form. Store in the refrigerator in a moisture-proof bag or container and use as soon as possible after purchase. One pound of asparagus should give four half-cup servings.

- . Lettuce. Iceberg (head) lettuce should be moderately firm. Over-mature, solid-hard heads may be difficult to separate into leaves for salad and occasionally have a bitter taste. Outer leaves should be free from wet or translucent areas and from browned edges. Before storing in the refrigerator, remove outer bruised leaves, wash under running water, drain well and pat dry to remove excess moisture. Store in a covered container such as the hydrator or a plastic bag.

- . Cucumbers. Avoid puffy, yellow cucumbers, which are over-mature. Good-quality cucumbers should be straight with rounded ends. Store in the refrigerator.

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6 3-155-jbn

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
May 23, 1963

Immediate release

## YOUNG ADULTS TO ATTEND REGIONAL CONFERENCE

More than 200 young people from an eight-state area will convene at Waseca for the 15th Annual Western Regional Young Adult Conference June 7-9.

The delegates are former members of the Rural Youth-Young Men and Women (RY-YMW) organization and present Young Adult Citizen (YAC) members from Minnesota, Kansas, Wisconsin, Iowa, Nebraska, Missouri, North Dakota and South Dakota.

Purpose of the conference is the further development of better agriculture and better rural community living. It provides an opportunity for exchange of ideas among members of various groups and organizations, according to Osgood Magnuson, assistant state 4-H Club leader at the University of Minnesota and adviser to the Minnesota YAC Council.

These young people will discuss the effects of "Competition--Cooperation," theme of the conference, in relation to two major areas--economic and social.

Leading these discussion sessions and other special sessions are Robert R. Pinches, program leader, career exploration, 4-H and youth development, Federal Extension Service and former assistant 4-H Club leader at the University of Minnesota; Robert Hodgson, former superintendent, Southern School and Experiment Station, Waseca; Edward Slettom, executive secretary, Minnesota Association of Cooperatives; and George Donohue, extension rural sociologist, University of Minnesota.

Two Minnesotans are officers of the Western Regional Conference: James Wilhelmson, Spring Grove, is president; and Wayne Mackenthun, Glencoe, is treasurer. Magnuson is also adviser to the Western Regional Conference.

All young people are invited to the Conference. Contact your county agent for further information.

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63-158-kmr

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
May 23, 1963

Immediate release

### LOOK FOR SHRINK-PROOF KNITWEAR

Next time you shop for cotton T-shirts, children's knit sleepwear or underwear, look for a label that indicates shrinkage control.

Shrinking of knitwear in laundering has plagued consumers and manufacturers for years. Some knitwear has shrunk as much as 20 percent when dried on the clothes line and even more in an automatic dryer. Now, however, a process has been developed to control shrinkage of knitwear, according to Thelma Baierl, extension clothing specialist at the University of Minnesota.

The new process, labeled as Pak-nit, compacts the knit fabric and shrinks it before it is made into a garment. Shrinkage is guaranteed at less than 1 percent. Pak-nit is designed for knitted goods just as the well known "sanforized" is for woven textiles, Miss Baierl says.

A year ago only one manufacturer was licensed to produce Pak-nit. Today more than 30 manufacturers are producing T-shirts, men's boys', girls' and women's knit underwear and sleepwear as well as infants' sleeping garments using the Pak-nit process of controlled shrinkage.

The Pak-nit symbol usually appears as a red saw-tooth circle with these words: Pak-nit, knit garment, less than 1% shrinkage by govt. standard test.

###

63-157-jbn

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
May 23, 1963

Immediate release

## SIX COUNTIES COMPLETE OSEDPs, MORE IN PROCESS

Half a dozen Minnesota counties have completed some of the most thorough studies ever made by local people of the problems of rural adjustment and what should be done about them.

Each report is called an Overall Social and Economic Development Plan (OSEDP). It's a searching look at local needs, problems and opportunities, natural and human resources, alternative solutions to problems and ways to arrive at courses of action.

The OSEDP is a focal point of the Rural Areas Development activity in these counties. Pine, Pennington, Kittson, Lake, Lake of the Woods and Itasca counties have completed OSEDP reports. At least another dozen counties are working on similar reports or plan to in the near future.

Rural Areas Development is a broadly-based method for diagnosing rural ailments and developing understanding among local people who then prescribe measures. The effort is basically a local responsibility, with national, state and other agencies cooperating to provide advice and resources.

The OSEDP reports are written by local Rural Areas Development committee members, often with assistance from the University of Minnesota Agricultural Extension Service, which is responsible for organizational leadership in the effort.

Following are some examples of what OSEDP reports contain:

\* Analysis of the situation. Pennington County found it had dropped in population from 1950 to 1960, while unemployment increased from 5.1 to 8.8 percent of the labor force. Lake County saw its farms all but disappear, with 92 left in 1959, even though total population increased and automation in industry pointed to a surplus labor force. Pine County also noted an out-migration from farming and increased difficulty for remaining farmers to make a profit. Kittson County noted that increased mobility of people would mean critical changes for local businesses, educational systems and community institutions.

(more)

add 1 -- OSEDPs

\* Inventory of resources. Several counties noted the importance of agriculture even though farm numbers are declining. Lake County's report saw future potential in minerals and forest resources and tourism, but noted a human resource problem in the inadequate level of training for new jobs which many persons would need to find. Pennington County saw definite assets in its present medical and health facilities, while Lake of the Woods County put such facilities on the deficit side. Crow Wing and Itasca counties analyzed carefully their forest and recreational resources and future potential for such industries.

\* Community needs. Again, the reports stressed needs both in physical and human resources and adjustments. Pennington County stressed a need for more local knowledge of the functions of government, community groups and the conduct of business. Kittson County's report writers said local towns need to analyze their business potentials on a county-wide basis. Lake of the Woods County stated a list of needed facilities--medical, service and transportation.

\* Recommendations. While most OSEDPs mention some form of commercial development, they go far beyond merely urging communities to bring in new industries. Kittson County suggested the possibility of interrelated services, such as machine construction and assembling depots. Lake of the Woods spelled out a five-point program for improving the tourist industry. Pine County recommended a program of systematic zoning and better coordination of community institutions to provide better, more efficient service.

Heavy emphasis was put on educational needs for total county populations--town, rural nonfarm, and farm. Pennington and Kittson counties both stressed the need for career counseling for county youths and for education on community institutions for adults. Most reports showed concern over development of community leadership, such as that of Crow Wing County which specified a need for agricultural and business seminars. Counties with important agricultural industries emphasized continued need for up-to-date information on agricultural production and marketing.

About 60 of Minnesota's 87 counties have initiated the organizational activity upon which Rural Areas Development is based. The specific approach which a county uses in this effort is determined by local people according to their own analysis of the situation.

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63-156-pjt

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
May 28, 1963

Immediate release

## PACKAGE FISH WELL FOR FREEZING

If you plan to freeze some of the fish you catch this summer, wrap it well to preserve its quality and don't keep it too long.

These suggestions were given today by Mrs. Shirley T. Munson, in charge of the University of Minnesota's food processing laboratory at the University of Minnesota.

Since fish has a relatively short storage life, fatty fish especially--like walleyes--should be used within six to nine months. Nonfatty fish like sunfish, crappies, bass or pike may keep satisfactorily up to a year. Fatty fish, however, including lake herring, lake trout and pink salmon, lose quality after about 4 months when stored at 0° F. A temperature of -10° F. is much better.

Mrs. Munson gives these directions for freezing fish:

Prepare fish for freezing as for table use. Scale, eviscerate, remove head and fins, wash thoroughly and drain. Freeze small fish whole; fillet or steak large fish. Package in heavy duty aluminum foil.

Small fish and fillets may be kept successfully by freezing in water. A disadvantage of this method, according to Mrs. Munson, is that you are freezing extra bulk. However, if you wish to use this method, put the fish in a pan, fill pan with water and freeze. Then remove the block of ice from the pan, slip the block into a plastic bag or wrap it in locker paper.

Be sure to label and date all packages of fish. Store fish in the coldest part of the freezer--near the bottom of chest types or directly on refrigerated shelves of upright models.

###

63-161-jbn

Add 1 -- feed additives

Antibiotics--Response of pigs to a given antibiotic varies from season to season depending upon the health and thrift of the animals fed. Hanson cites, among others, three representative research situations. In one case (a St. Paul Campus study), scouring occurred among some pigs early in the experiment--but only among those not getting an antibiotic supplement. In a second case ( a Nebraska study) pigs were healthy at the start, but later showed disease symptoms which were cured by feeding aureomycin. And in the third case, no disease symptoms appeared during the experiment at all; still the antibiotic markedly increased weight gains, although some increase has not occurred in several other studies involving apparently healthy animals.

Hormones--Stilbestrol has been shown in many studies to increase rate of gain and efficiency of feed conversion in fattening cattle and lambs, but not in swine. One question has involved the effect of stilbestrol on carcass grade. In experiments at Rosemount, steers fed for the same length of time graded the same regardless of whether they were fed stilbestrol. But when fed to the same final weight, steers not fed stilbestrol were fatter and graded slightly higher. Stilbestrol may be fed orally to either steers or heifers, but implants are not recommended for heifers, because of the possibility of vaginal prolapse.

Thyroid-like compounds--One of these products, iodinated casein (thyroprotein) has been available for about 20 years. It may be fed at specified levels to cattle, sheep, swine, growing chickens and turkeys and laying and breeding hens. Its value in production has been controversial. A 1959 statement from the National Research Council indicates that value of thyroprotein in animal production is quite limited; young growing pigs may benefit and dairy cows may show increased milk production if the compound is administered over a short period of time at certain stages of lactation.

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63-160-pjt

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
May 28, 1963

Immediate release

## FEED ADDITIVES VALUABLE TO LIVESTOCK AND FOOD PRODUCTION

Research in the past dozen years has clearly demonstrated the value of feed additives in production of high quality, nourishing food, according to a livestock researcher at the University of Minnesota.

Principal beneficiary of the increased efficiency in food production from use of additives has been the consumer, he says.

This view is from L. E. Hanson, head of the University's animal husbandry department, who says that while feed additives may be toxic to animals when improperly used, research has set guidelines for their safe use. Food and Drug Administration regulations are based on these guidelines.

Hanson points out that most feed additives found in tissues while the animal is receiving them in the feed, are eliminated within a few days after they are eliminated from the ration. This holds true for all compounds used to "promote growth."

The number of days that a specific compound should be kept from feed before the animal is slaughtered for food has been determined for all feed additives. These determinations are the basis for FDA regulations and for instructions attached to all feeds which contain drugs.

In the current edition of Farm and Home Science, a University Agricultural Experiment Station publication being issued this week, Hanson discusses years of research at several institutions on different kinds of feed additives for livestock. He deals mainly with feed additives used as "growth stimulants" and therefore fed at relatively low levels. Following are some of his comments about certain additives:

(more)

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
May 28, 1963

Immediate release

#### PLANS ARE AVAILABLE FOR ALL-PURPOSE SHED

If you have been looking for some good plans for a cattle, sheep or hog feeding shelter or even a poultry house or machine shed, some good working drawings are available through the University of Minnesota.

The plans call for a structure that is 26 feet deep, front to rear, and can be built any length in multiples of 12 feet.

The roof will support up to 30 pounds per square feet if the trusses are spaced at four feet, as shown in the accompanying plan.

With the building open on one side, it is an excellent livestock feeding shelter. Closed in all around, it can serve for poultry housing, machine storage or almost any general farm use.

For plans send 50 cents to the Department of Agricultural Engineering, Institute of Agriculture, University of Minnesota, St. Paul 1. Ask for Plan No. 5874.

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63-159-vln

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
May 28, 1963

To all counties  
Immediate release

IN BRIEF.....

Rural Areas Development Progress: Six counties in Minnesota have completed Overall Social and Economic Development Plans, as part of their efforts in Rural Areas Development. Each report (called as OSEDP) is a searching look at local needs, problems and opportunities, natural and human resources, alternative solutions to problems and ways to arrive at courses of action. Rural Areas Development is a broadly-based method for diagnosing rural problems and developing understanding among local people who then prescribe measures. The effort is basically a local responsibility, with national, state and other agencies cooperating to provide advice and resources.

\* \* \* \*

Swine Testing programs have shown the way to hog performance improvement. At Minnesota Swine Testing Stations between 1959 and 1962, pounds of feed required by test hogs per hundred pounds of gain decreased 6 pounds, while carcass quality went up. Changes in carcass meatiness were striking. Increases were .8 inch in length, .54 square inch in loin eye area and 1.9 percent in ham and loin. Backfat thickness went down .11 inches. These data are from Irvin Omtvedt, extension animal husbandman at the University of Minnesota.

\* \* \* \*

Dead wood and Dutch elm disease: One of the best ways to head off Dutch elm disease may be a good program of cleaning up dead wood, according to Herbert Johnson, extension plant pathologist at the University of Minnesota. The fungus disease is carried by beetles which overwinter as larvae in the bark of dead elm branches and trees. Spraying trees will kill beetles, but that doesn't handle the overwintering problem. In fact, spraying is not recommended unless the disease has been found in an area.

\* \* \* \*

A check on frost damage: Last week's freeze probably didn't do much damage to corn since growing points are below ground. To check, split the crown of the plant lengthwise and see if the growing point is brown.

# # # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
May 28, 1963

To all counties  
ATT: Home Agents  
Immediate release

FREEZE ASPARAGUS  
FOR LUXURY MEALS

Freezing some of the asparagus from your home garden will give you many tasty meals next winter. You'll also have a supply of what you might class as a luxury vegetable if you bought it at the store.

Freezing is a favorite way of preserving asparagus, since it retains both original texture and flavor when frozen, says Home Agent \_\_\_\_\_.

The best time to harvest asparagus for freezing is after a spell of warm -- not hot -- weather. The asparagus will then have grown rapidly and will be tender and flavorful. Avoid picking it after a hard rain, since it is difficult to clean when the dirt has splashed onto the stalks, into the tips and under the bracts.

Plump stalks are most desirable for freezing. Very slender stalks are likely to be tough.

Mrs. Shirley T. Munson, in charge of the University of Minnesota food processing laboratory, gives these pointers on freezing asparagus:

After harvesting the asparagus, break off the woody ends and wash the vegetable in cold water immediately. Be sure to wash in several waters to get all the sand and dirt out of the tips and from under the bracts. It will not be necessary to remove the bracts unless dirt is imbedded under them, but remove several bracts to check.

If it is not possible to process the asparagus as soon as it is picked, chill it in cold water and refrigerate it until you are ready. Freshness is extremely important for a high quality product.

-more-

add 1 - freeze asparagus

Leave the stalks whole or cut them up, as desired. However, separate the stalks into medium and large sizes. Scald medium-sized stalks 3 minutes, large stalks 4 minutes.

To scald asparagus and any other vegetable, use a large kettle with a cover and allow 1 gallon of water for each pound of vegetable. Bring the water to a rolling boil, place the prepared vegetable in a wire basket or large loose cheesecloth bag and submerge in the boiling water. Keep the kettle covered and keep the heat on high. Count scalding time from the moment you put the vegetable in boiling water.

Cool the scalded vegetable in running cold water or iced water, drain, package and freeze. Be sure to label each package with name of product and date. Dating the asparagus is especially important since frozen asparagus has a shorter storage life than other vegetables. It should not be kept over a year.

Polyethylene bags are satisfactory containers for freezing asparagus. Mrs. Munson suggests that the frozen packages of asparagus be stored together in a large paper sack in the freezer for convenience.

-jbn-

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
May 28, 1963

To all counties  
ATT: Home Agents

DAIRY PRODUCTS,  
BEEF ARE JUNE  
FOOD BARGAINS

Dairy products, beef and poultry are among the food bargains that ring the bell for June.

The U. S. Department of Agriculture's plentiful foods list for June also includes eggs and early summer vegetables, reports Home Agent \_\_\_\_\_.

June is traditionally Dairy Month, because of peak milk production. Food shoppers will find economical buys not only in milk but in ice cream in a variety of flavors, cream, cottage and other cheeses, buttermilk, sour cream, evaporated and nonfat dry milk. Pointing out that milk is a bargain money-wise and nutrition-wise, extension nutritionists at the University of Minnesota say that 15 percent of the food bill spent for milk will supply 25 percent of your food needs.

Beef and chicken prices are expected to remain low as a result of high supplies throughout early summer. Since June is also National Barbecue Month, what better way to celebrate Father's Day, June 16, than with a family beef or chicken barbecue? The aroma of a tender spring chicken turning on the spit or juicy porterhouse steaks or thick hamburger patties sizzling on the grill should stimulate appetites. Or, if you prefer indoor eating, a thick, juicy rib or chuck roast or fried chicken would no doubt make a hit with Dad and the rest of the family.

Eggs are back on the USDA's list of plentiful foods. Hard boiled, deviled, mixed in salads -- eggs are summertime favorites for picnics or indoor meals.

A host of early summer vegetables will be heading for markets in June. Look for sweet corn, lettuce, cabbage, radishes, cucumbers and tomatoes to become available at attractive prices. You may also find ample supplies of asparagus, green onions, carrots, new potatoes, spinach and summer squash.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
May 28, 1963

To all counties

4-H NEWS

Immediate release

PHOTOGRAPHS  
MAKE A STORY  
COME ALIVE

A picture may be worth 1000 words, whether it's of your new house, a newly born calf or a family activity.

Before you take a photograph which tells a story, consider these points suggested at the University of Minnesota:

- . Exactly what do you want the picture to tell?
- . Are you taking the picture from the best position?
- . Is the foreground free from objects and people that don't help tell the story?
- . Is the background clear and simple so it won't draw attention away from the subject?
- . Are you including only those things that are needed to tell the story?
- . Are you close enough for the subject to be seen easily in the finished picture?

With proper captions, photographs can tell a story clearly and will help you in identifying them later on.

4-H'ers can put the techniques they learn in the photography project to good use by highlighting some 4-H records with photographs.

You may want to use photographs for purposes of comparison in any 4-H record. For example, a before-and-after series would bring your homeyard improvement project to life, showing what improvement shrubs, flowers, trees or lawn you planted made to the appearance of your home.

Photographs will highlight any home improvement record, particularly if they are in color, and show a room before you redecorated it and then the progress toward the finished product, including color schemes.

Photographs that tell a story are often used in place of words because they give information in a quick and easily understood form. An informative addition to your forestry project record might be a photograph showing steps in planting a tree. The picture could show, for example, the preparation for planting a seedling -- the size, shape and depth of the hole; the size of the tree and its root system; a pile of top soil that will be used to cover the roots; and the tools you use.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
May 28, 1963

To all counties  
Immediate release

NITROGEN NEEDS  
DEPEND ON SEVERAL  
SOIL CHARACTERISTICS

When does nitrogen fertilizer pay best on corn?

University of Minnesota soils specialists say it's when the corn doesn't follow legumes and no manure has been applied. Soil characteristics and weather are important, too.

Extension soils men Curtis Overdahl and Lowell Hanson summarized results from fertilizer demonstrations around Minnesota.

They looked at yield increases from adding 70 pounds of nitrogen in 127 plots set out in 1961 and 1962. In 25 of the plots, or about a sixth of the total, there was no yield increase at all.

Increases were from 1-10 bushels per acre in 39 plots, 11-20 bushels in 44, and over 21 per acre in the other 19. In other words, increases were over 11 bushels per acre in about half the plots and 10 or less in the others.

Why was there so much variation? The soils men say that many of the fields of low response had raised alfalfa the year before, or had been manured. Some low response occurred in corn following corn in western Minnesota, where low rainfall meant lower yield potential and less movement of nitrates from crop residue or previously applied nitrogen.

Most of the heavy response to nitrogen was either on loamy sands north of the Twin Cities or on soils with limited internal drainage and following non-legume crops. In such cases, not applying nitrogen would have cut profits markedly.

As a general rule, Overdahl and Hanson say 40 to 50 pounds of nitrogen may be the most profitable rate in low rainfall areas, especially on soils low in water holding capacity. Where rainfall is more dependable and corn follows nitrogen-depleting crops, 60 to 80 pounds per acre usually pay off. But the soil also needs plenty of phosphorus and potassium.

Rates of nitrogen above 80 pounds may be feasible in some areas.

# # # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
May 28, 1963

To all counties  
Immediate release

LAMB FEEDLOT PROFITS  
DEPEND ON MANAGEMENT

Profit margins per lamb in feeding operations have been small and may even get smaller.

"But," says Robert M. Jordan, University of Minnesota animal husbandman, "what counts is the profit margin in the feedlot. That can be as great as ever for operators who follow sound management principles."

He emphasizes that there are many areas of management where a little "slippage" will take a good share of the profits. Following are some of Jordan's suggestions for making lamb feeding operations pay off:

Buying and selling are critical management areas. You can't afford to pay the same price per hundredweight for 85 to 95 pound lambs that you would for 70-pounders. It's true that the heavy lambs have less death loss, but they also provide less opportunity to put on gain.

Lambs weighing 60 to 75 pounds are not always a good buy either. Regardless of the average weight bought, there is seldom room to put on enough low cost gains to pay for a large negative margin. Death loss from light lambs is higher; the feeding period is longer; it's harder to predict what the market price will be and the volume of lambs you can put through your feed lot is reduced.

Lambs carrying needles or spear grass and lambs which are stiff or arthritic or those purchased under unfavorable weighing conditions seldom return a profit to the feeders.

Consistent quality pays. Packers want a steady supply of high yielding lambs that meet a certain grade and fulfill certain demands. For this, they often will pay a premium.

-more-

add 1 - lambs

Sell each lamb when it's ready. Don't wait for them all to ripen at the same time. Like tomatoes on the vine, they seldom do. Successful feeders don't hold their lambs gambling on a price rise.

Supply dictates price. There are times when you can count on either higher or lower prices. This price fluctuation, which depends on supply of lambs, is what gets most "one-shot" feeders into trouble. They buy feeders in the fall and sell all of their lambs about Christmas time or in mid-January. The market for finished lambs is usually low at that time. Such a practice is like "drawing to an inside straight."

If "one-shot" feeders do not top out and sell their lambs as they are ready during early fall they are likely to lose money. Successful feeders refill their lots during periods of low prices and thus reduce the gamble. A rule to remember is that feeder prices usually follow fat prices.

Feed efficiency counts. The day probably never will come when the small feeder with a stack of hay and a crib of 60 cent wet corn can't make a profit feeding, if he manages his operation with skill.

In general, fast gaining lambs are efficient lambs. Your lambs should gain .4 to .5 of a pound daily. To gain rapidly, lambs need a full ration with adequate nutrient content. Dirty feed, inadequate water, too little protein in the diet, too little bunk space and too little food generally, all can slow the rate of gain.

Alfalfa hay and shelled corn comprise one of the best basic rations for lambs. You can increase the rate of average daily gain by adding a protein supplement. Grinding or pelleting such a ration will increase feed intake and gain, but not necessarily feed efficiency.

Other factors which Jordan emphasizes are to get maximum use of equipment, decide whether you will shear lambs for faster gains during warm weather and vaccinate to trim death losses.

# # # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
May 28, 1963

To all counties  
Immediate release  
(2nd of four articles)

ECONOMIC GROWTH  
MEANS ADJUSTMENT  
STRESSES

As people leave Minnesota's farms and rural areas for the cities and other employment opportunities, one question is often overlooked.

Are these developments a sign of abnormality, or are they what you'd expect in a growing society?

To many economists, the present trends in Minnesota are in line with long known principles of economic growth.

An extension economist at the University of Minnesota, Paul Hasbargen, explains that in the early development of any country, agriculture is usually a key industry. As was true in Minnesota and the rest of the country, the agricultural sector must generate enough capital and labor to finance industrial development.

But as industrial development progresses, agricultural employment declines, relative to the other sectors, and in the late stages of growth farm employment declines absolutely.

Employment decline in farming is a result of two main factors:

- (1) The limited demands for agricultural products, and
- (2) The large potential expansion in agricultural production using the same or even less labor.

In general, Hasbargen says, the demand for farm products is limited to increases in population. Therefore, with rapid increases in productive capacity, American agriculture had a serious problem of adjustment in recent decades. It takes fewer people to turn out the farm goods needed by the economy.

-more-

add 1 - economic growth

People left agriculture at a very rapid pace during the 1950's. But the problem is that whenever such a rapid change occurs, there is a lag in adjustment. Persons still employed in the declining sector will be underpaid for their talents and abilities, in comparison to other sectors of the economy.

Therefore, Hasbargen explains, over-production resulting from over-abundant resources in agriculture has led to low prices and incomes to farmers.

These lower prices have retarded the growth rate of the total productivity of agriculture, compared to the rest of the economy. Total agricultural productivity is a ratio, computed by dividing an index of agricultural outputs by an index of total inputs.

Now here is what may be a shocker. Two U. S. Department of Agriculture economists, Ralph Loomis and Glen Barton, have estimated that agriculture has increased in total productivity only half as fast as the U. S. economy as a whole since 1870.

And since 1940, the annual increase in productivity is 1.6 percent in agriculture, compared to 2.3 percent for the entire economy.

These differences have occurred even though agriculture had twice as rapid a rate of increase in labor productivity, compared with the economy as a whole, since 1940. This rapid growth of labor productivity has, in fact, enabled agricultural employees to maintain their relative income positions in spite of a lag in increase in total productivity.

Trends in Minnesota agriculture reflect general principles of economic growth and development, Hasbargen points out. Central to such principles are prices, which play a major role in mapping out the direction of economic growth. By reflecting consumer values on different products, prices inform producers as to which items are in greater or less demand.

Higher prices for items in large demand enable producers to pay higher prices for resources, thereby bidding the resources away from lower value uses. If an industry succeeds in getting a high return on its resources, it will attract additional resources, and expand its operation.

add 2 - economic growth

On the other hand, economic units which incur losses slowly disappear from the economic scene as their capital depreciates and they are unable to attract new capital. Labor employed in such economic units is channeled into growing industry.

Hasbargen says the price system accommodating these changes in consumer wants, resources and technology is an impartial mechanism, which is neither just nor unjust. Individuals employed in so-called growth industries tend to reap wind-fall gains as opposed to those in declining industries who may suffer losses due to growth in economy.

Hasbargen points out that agriculture is not the only industry showing employment declines. Mining and transportation have also shown declines in the last decade. Employment in mining dropped about 25 percent during the 1950's - almost identical to the decline in agricultural employment.

On the other hand, industries such as finance, construction, trade, manufacturing and services increased in employment. U. S. Department of Labor has projected a 30 to 40 percent increase in employment in finance, insurance and real estate in the 1960's.

In comparison, agricultural employment is expected to decline another 15 to 20 percent during the current decade.

# # # #

## DO'S AND DON'T'S OF SPRAYING IN GARDEN

Sprays and dusts can be used safely to control insects and diseases in the garden if proper precautions are taken.

John Lofgren, extension entomologist at the University of Minnesota, lists a few of the do's and don't's to follow for safe use of garden chemicals:

- . Store all pesticides in a special place not readily accessible to children and preferably in a place that can be locked. Never store them near food, feed or clothing.
- . Store chemicals only in the original containers and keep the latter tightly closed. When the containers are empty do not re-use them, but dispose of them according to instructions on the label.
- . Be sure labels and instructions remain on chemical packages and are not mutilated. If chemicals are marked "Poison" be certain that instructions for the antidote remain on the package.
- . Read all labels and precautions carefully and follow instructions exactly.
- . Do not allow small children to be present when you are mixing or applying chemicals. Teach older children proper respect, precautions and care.
- . Always use only the recommended rates of application. Chemicals may possibly injure plants if you use more than the recommended amount--and are not any more effective.
- . Avoid spilling chemicals on the skin or on clothing. Wash hands immediately after spraying, being careful not to touch the face or to eat before your hands are clean.
- . Avoid inhaling dusts or sprays.
- . Never smoke or eat while applying dusts or sprays.
- . Delay spraying or dusting if the day is windy.
- . Don't apply chemicals to vegetables or fruits immediately before picking.

Follow instructions on the minimum interval for use before harvest.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
May 29, 1963

Immediate release

#### 4-H'ERS TO ATTEND HEALTH CAMP

Nearly 100 4-H'ers from every Minnesota county will attend the 11th annual State 4-H Health Camp, June 9-13, in Itasca State Park at the University of Minnesota's Forestry and Biological Station.

The delegates are selected from each county on the basis of their personal health achievements as well as their contributions toward improving community and home health conditions.

Donna Johnson, Pine City; Bonnie Gustafson, Maple Plain; Don Sandborg, Butterfield; and Mike Kennedy, Albert Lea, 4-H members of the Health Camp continuation committee, helped plan the camp program. They will also act as chairmen for the various assemblies at camp.

Highlights of the camp program include workshops and discussion sessions covering mental attitudes and outlooks and health surroundings. These sessions will be led by personnel from the University of Minnesota Agricultural Extension Service and the Minnesota State Department of Health.

A new feature of the Health Camp this year is a career exploration assembly in the fields of health, including medicine, nursing and mental health.

The 4-H Health Camp program began in Minnesota in 1953. It is sponsored by the University of Minnesota Agricultural Extension Service with financial assistance from the Folger Coffee Company of Kansas City, Missouri.

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63-164-kmr

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
May 29, 1963

Immediate release

## N. ST. LOUIS COUNTY GROUP IS OUTSTANDING CONSERVATION CLUB

The Swandale 4-H Club of North St. Louis County has been chosen the outstanding 4-H Conservation Club of the year for its varied conservation undertakings.

The Diligent Osageans of Becker County, the Dresser Valley 4-H Club of Olmsted County, the Rum River Rockets of Mille Lacs County and the Linden Gophers of Brown County received honorable mention for their conservation activities, Stanley Meinen, assistant state 4-H Club leader at the University of Minnesota, announced today.

Fourteen of the 18 members of the Swandale 4-H Club are enrolled in the conservation project. Club members have tapped maple trees and made maple sap. Each of the club members planted 25 Norway pine and Spruce trees on their farms, in addition to planting 1,400 trees in the community.

Swandale 4-H'ers have taken part in the Audubon bird count since 1957, and in the Duluth hawk count. They have gone on early morning bird tours during the period of greatest spring migration, on nature trail hikes and wild flower tours. Because of the success of their bird feeders and bird houses, the 4-H'ers are now putting up a bluebird trail. They also prepared winter bird lists and state check lists for county conservation members.

"Bird Tour" was the theme of their prize winning booth at the county fair last year. The booth was also displayed at the American Forestry Association in Duluth last fall.

At their meetings the club has featured conservation films, slide programs and speakers, including Rev. Forest V. Strand, bird bander and 1962 president of the Minnesota Ornithologists' Union.

Two leaders of the club will be invited to the State 4-H Conservation Camp, June 5-9, to tell about the club's activities. Kathy Graham, Hibbing, a member of the club, will also attend the camp as one of the delegates from St. Louis County.

Interesting projects of the runner-up clubs include building a pheasant shelter feeding approximately 500 pheasants, planting trees and working at the county 4-H Wayside Park, constructing a wild game bird feeder and maintaining a roadside park for the summer.

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63-163-kmr

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
May 29, 1963

Immediate release

## TWO IFYE DELEGATES TO VISIT FOUR MINNESOTA COUNTIES

Two young farmers from the British Commonwealth will live and work in four Minnesota counties this summer under the International Farm Youth Exchange (IFYE) program.

James Swain, 21, Lurgan, County Armagh, Northern Ireland and William John Spencer, 24, Piawaning, West Australia, will live and work with Minnesota families from June through August. Both IFYEs will be guests at the Junior Leadership Conference June 25-28 on the University of Minnesota's St. Paul Campus.

Arriving in Minnesota on June 6, Swain will stay with the Harry Olson family, Eagle Bend, June 8-25 and the Reinhart Sennenberg family, Vergas, June 28-July 15, in Otter Tail County. From July 16 to August 2 he will stay with the David Lloyds of Cleveland in Le Sueur County.

As a farmer in Ireland, Swain has a special interest in ranching, dairying, cotton, corn and tobacco production in the United States and will be able to compare and exchange knowledge during his stay in Minnesota. He is also interested in Minnesota 4-H work and other youth activities. He has been a member of the Young Farmers' Club of Ulster, Geographic Club, Debating Society, Hockey Club, Tennis Club, Glee Club and Greenmount Old Scholars.

The Young Farmers' Clubs of Ulster are helping to sponsor Swain's trip.

Spencer is interested in wheat and sheep production and in cattle--particularly polled Herefords. He is looking forward to learning about youth organizations, primarily 4-H clubs and youth recreational activities. In Australia, Spencer has been active in tennis, squash, basketball, hockey and football and is a member of the Junior Farmers.

The Henry Knoll family, Stephen, and the Tom Waldrons, of Glencoe, will be host to Spencer during his stay in Minnesota from June 18 to August 2.

The Reserve Commonwealth Bank of Australia is Spencer's Australian sponsor.

The American IFYE program is sponsored by the National 4-H Club Foundation and the Agricultural Extension Service to promote better world understanding at the grass roots level.

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Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
May 29, 1963

\*\*\*\*\*  
\*For release at 2 p.m. \*  
\*Friday, May 31 \*  
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## W. E. PETERSEN PORTRAIT PLACED IN UM LIVESTOCK HALL OF FAME

W. E. Petersen, retired professor of dairy husbandry at the University of Minnesota, was honored today by the Minnesota Livestock Breeders Association during their annual meeting on the St. Paul Campus.

A portrait of Petersen was placed in the Livestock Hall of Fame in Peters Hall. Petersen's is the 46th portrait in the Hall of Fame, which was established in 1933.

Petersen was recognized for his years of teaching and research in dairy production science and for his contributions to the livestock industry. He served on the University staff for 39 years before his retirement in June, 1960.

Among Petersen's early contributions were findings which led to effective treatments for milk fever in dairy cows. He also found that the hormone oxytocin causes bovines to let down their milk and developed a rapid milking procedure which subsequently found wide usage on dairy farms. He studied several aspects of cattle nutrition and health.

Students of Petersen became familiar with his "mechanical cow"--an artificial heart and lung unit which could keep a severed udder functioning as long as 12 hours. This device was used extensively in instruction and for gathering research data on mammary systems.

In recent years, Petersen was known for the immune milk theory, which he advanced in cooperation with Berry Campbell, former University anatomist. The central point in this theory is that the cow's udder will produce disease antibodies in the milk after being injected with disease-producing organisms, and that persons drinking the milk develop temporary immunity to the disease involved.

Petersen's previous honors include knighthood from the King of Denmark, the Borden award in dairy science, the Milk Industry Foundation teaching award, the F. B. Morrison award and the Award of Honor from the American Dairy Science Association.

Petersen was born and reared near Pine City and attended the University, where he received his Ph.D. in 1928.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 4, 1963

To all counties

Immediate release

CHICK DECREASE INDICATES  
STABLE EGG PRICE PICTURE

Fewer chicks for laying flock replacement have been hatched thus far this year than in a similar period last year, according to W. H. Dankers, extension economist in marketing at the University of Minnesota

If the present trend continues, Dankers says, the total hatch of egg-type chicks for 1963 will be no larger and may be smaller than the hatch last year. This should mean that egg prices received by producers in the late 1963 early 1964 should be as good or even a bit better than those received by producers for the same period of 1962-63.

He points out that the total hatch of egg-type chicks in Minnesota for the first four months of 1963 was 14.26 million, down 9.8 percent from the same period last year. Nationwide, the hatch was 339.19 million chicks, down 2 percent from a year ago. The May hatch was about the same as May a year ago.

Dankers says the regional statistics on hatches of egg-type chicks indicate some interesting shifts in production. For example, the South Atlantic, the West South Central and the East South Central states had increases of hatch of egg-type chicks during the first four months ranging from 3 percent to 22 percent. At the same time, the other six regions of the United States had decreases of from 3 to 16 percent in hatch of egg-type chicks.

The Mountain States had 16 percent decrease, with the West North Central States decreasing 7 percent and the East North Central states decreasing 6 percent.

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Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 4, 1963

To all counties  
Immediate release

IN BRIEF--

Lamb price peak due: With lamb prices expected to reach a high in June and July, lambs now weighing more than 65 pounds might be aimed for that market, according to Paul Hasbargen, extension economist at the University of Minnesota. Slaughter of lambs is running 6 to 8 percent below levels of a year ago, so prices have been relatively high. However, further lamb price increases will be dampened by heavier beef supplies.

\* \* \* \*

Hay income boosts of \$18 to \$25 per acre are entirely possible, says W. W. Brookins, assistant extension agronomist at the University of Minnesota. Some farmers are doing it--through shifting to three cuttings, curing properly and getting the hay inside early. The income boost is through saving more protein and total feed value. A tip to insure fermentation and good preservative action in legume silage in tight silos: add ground corn and cob meal, ground grain or molasses. Any of the three will add energy value, too. Sodium metabisulphite makes a good preservative.

\* \* \* \*

Value of feed additives in production of high quality food has been established in years of research. L. E. Hanson, head of the University of Minnesota's animal husbandry department, says that while feed additives may be toxic to animals when improperly used, research has set guidelines for their safe use. Most feed additives found in tissues while the animal is getting them in feed are eliminated a few days after they are taken from the ration. This is true for all growth-promotion compounds.

\* \* \* \*

Cyclamen mites can mean poor quality and dried-up strawberries. Orrin C. Turnquist, extension horticulturist at the University, suggests spraying new plants with Kelthane to control these pests.

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Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 4, 1963

To all counties  
ATT: Home Agents  
Immediate release

FREEZING RHUBARB  
CAN PUT SPRING  
IN WINTER MEALS

When icy winds are blowing next winter, you can bring a touch of spring into your meals with a rhubarb pie.

Freezing some of the tender stalks of rhubarb from your garden before the hot weather sets in will give you a supply you can draw upon next winter for rhubarb pie, cake or sauce.

One of the advantages of freezing rhubarb, says Home Agent \_\_\_\_\_, is that it's so easy to process. Simply wash the stalks, cut off any blemished pieces and woody ends. Then cut it up and package it in polyethylene bags.

Mrs. Shirley T. Munson, in charge of the University of Minnesota food processing laboratory, suggests freezing rhubarb in the quantities you will use in pies or in cake or for sauce. If desired, you can also pack it with the amount of sugar you would use. For sauce, the flavor is a little better if the rhubarb is packed in a sugar syrup, using  $3\frac{1}{2}$  cups of sugar to 4 cups of water.

When you use the frozen rhubarb for pies, be sure to thaw it partially before filling the bottom crust, Mrs. Munson cautions. If the rhubarb is still frozen it may make the bottom crust soggy. If there's a great deal of juice, you may have to pour off some of it.

-jbn-

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 4, 1963

To all counties  
4-H NEWS  
Immediate release

COUNTY 4-H'ERS TO  
STATE CONFERENCE

\_\_\_\_\_ County will send \_\_\_\_\_ delegates to the 43rd State 4-H  
(number)  
Junior Leadership Conference to be held June 19-22 on the University of Minnesota's  
St. Paul Campus, announces \_\_\_\_\_ Agent \_\_\_\_\_.

(List names and addresses of delegates)

LaVern Freeh, director of Agricultural Short Courses at the University, will  
open the conference, speaking on "Leadership--an Opportunity--Obligation."

Following an assembly on group leadership led by George Donohue, extension  
rural sociologist at the University, delegates will discuss leadership opportunities  
in 4-H.

"International Dimensions in Citizenship" is the subject of a talk to be given  
by Charles T. Vetter, Jr., lecturer, United States Information Agency, Washington,  
D. C. Mr. Vetter will talk about his experiences in Russia and the Communist  
philosophy and will give deeper insights into differences in ideologies by playing  
the role of a Communist in answering questions.

Other highlights of the conference include a career exploration session, a  
report by the three International Farm Youth exchangees and the attendance of 35  
4-H delegates from Maryland.

Thursday evening the 4-H'ers will attend a banquet sponsored by the Minneapolis  
Area Chamber of Commerce. Following the banquet 4-H Alumni Awards and Friends of  
4-H will be announced. Entertainment will be provided by WCCO radio personalities.

A special feature of this year's conference will be training in the tractor  
project including a tractor operators' contest. One 4-H'er carrying the tractor  
project in each county may participate. The winner will compete in the regional  
contest at Bismarck, North Dakota, in the fall. \_\_\_\_\_ County's representative  
will be \_\_\_\_\_.

Approximately 750 junior leaders from all parts of the state are expected to  
attend the conference. They will stay in the State 4-H Building on the State Fair  
grounds.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 4, 1963

To all counties  
Immediate release

SHEAR CHRISTMAS TREES  
FOR GREATER PROFITS

Mid-June to late July is a good time to work on future Christmas tree profits.

This is the most favorable time for shearing and pruning, to encourage development of the compact, symmetrical tree that brings a premium on the Christmas market.

Extension forester Marvin Smith at the University of Minnesota says shearing and pruning needs to be done 10-14 days before the tree's height growth stops and new wood hardens. That means starting around mid-June in southern counties, and the second or third week of July in counties farther north.

Shearing involves cutting back the current growth of the terminal leader of each tree and the side branches. This improves the form and thickens the foliage.

Pruning removes competing terminal leaders and single branches to improve a tree's form, Smith explains.

Shearing should be started when trees are 24 to 30 inches high. Trees grow faster in their second or third year after planting. If they are not sheared, the whorls of branches will be too far apart for good appearance.

When you are cutting back the terminal leader and shearing side branches, look for multiple stems. Any time you find a tree with two or more stems, trim out all but the straightest and best formed. Also, remove branches near the ground to provide an eight to ten-inch handle.

Once you've started shearing, do it every year until harvest. You may have to repeat the process as many as four times before you market your trees, but the improved trees will be worth the trouble.

-more-

add 1 - shear christmas trees

Shearing pines during the period of growth causes a new cluster of buds to form on the cut surface. If you shear too early, you'll get too many buds. If you shear too late you may get too few buds, or the shoot may even dieback or growth will be stunted.

If you have both Norway and Scotch pine, shape the Norway first. Best results are obtained when Norway are sheared as soon as the season permits. Scotch pine needs to be shaped later to avoid excessive bud formation.

Spruce and fir normally start growing rapidly about the third to fifth year. If top growth is not checked, the tree will tend to be narrow and sparsely branched. These trees can be shaped anytime after the height growth is completed in September and before it starts again in about April.

You can use a variety of tools to shape conifers. Most growers use a hedge shears, but a sickle, pocket knife, pruning shears or machete can be used.

For complete details on shaping Christmas trees, read Forestry Fact Sheet, No. 2, "Shaping Conifers for Christmas Trees." Your county agent can give you a copy.

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Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 4, 1963

To all counties  
Immediate release

RURAL TRENDS  
AFFECT BUSINESSES  
ON MAIN STREET

When farmers hang up auction notices and leave for the cities, who is affected more -- agricultural service businesses, or the stores on main street?

Actually, the agribusiness sector of the economy is faring well in Minnesota and the rest of the U. S., a University of Minnesota economist says.

Paul Hasbargen states that the most detrimental effects of current trends in agriculture are on the main street businesses that deal in non-durable goods such as food and clothing. Sales of such products depend largely on numbers of people. And as people leave, fewer dollars are spent on these commodities.

Hasbargen says this differential effect on businesses is a key factor for rural people to keep in mind when analyzing the problems of their communities.

All of these effects, he says, are related to the patterns of economic growth and development in the U. S. The agricultural sector has a greater capacity to produce more than demand requires, not only in food and fiber but in labor as well.

As labor leaves agriculture, rural areas face serious social and economic adjustment problems. Can such areas share in the economic growth of the nation? No, answers Hasbargen, if growth is thought of in the volume sense alone, that is, in employment of people. But the answer is yes if growth is thought of as an increase in per capita income. In fact, individual welfare can be improved only by still further decrease in agricultural employment in some areas of Minnesota.

Will population loss lead to ghost towns and decaying economic strength in rural areas?

add 1 - rural trends

People sometimes concentrate upon the fact that agricultural population is diminishing, and seek policies and programs to stop or reverse this trend. But before embarking on such a crusade, Hasbargen says people should analyze more closely the impact of change upon the agribusiness service trade centers -- most of which seem to be favorably affected by the present agricultural trends.

Up to now, machinery salesmen and dealers in other durable supplies have often been favorably affected, especially by the substitution of capital for labor. In the future, however, some of these businesses may experience some leveling off, since agricultural mechanization is now fairly complete.

Dealers in feed, seed, fertilizer and similar products have definitely benefitted by the adoption of new technology, which increases the proportion of purchased inputs in agriculture. Such businesses will probably continue to grow rapidly in the future.

Businessmen in marketing and processing depend on the volume of crops and livestock produced, and not on numbers of people involved in producing this output.

Credit agencies have been and will be favorably affected, because of greater demand for agricultural credit.

It is the **businessman** who sells non-durable goods to consumers, then, who is hit hardest by rural out-migration, since his business depends most directly upon numbers of people. However, even here, increases in per capita farm income partially offset the decline in numbers of people, especially as to demand for consumer durables and service. Also, the trend toward specialization means farm families buy many more food products which they used to raise on their farms.

Hasbargen concludes that while these changes require adjustments, they do not necessarily lead to economic stagnation for rural areas. Rather, people may enhance their welfare by developing policy programs in two broad areas. One area is in helping those who do remain in agriculture to improve their farm organizations and operations and the other is to help those who are leaving to assess their career opportunities and prepare themselves for non-farm jobs.

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Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
June 4, 1963

Immediate release

## OATS FIELDS WILL PROBABLY OUTGROW LIGHT FROST DAMAGE

Those yellow spots showing up in some oats fields around Minnesota are probably due to light frost damage, dating back to the low temperatures of May 22.

But most oats will outgrow this damage and needn't be plowed up, a University of Minnesota specialist advises.

Herbert Johnson, extension plant pathologist, says the problem has been seen mostly in west central and north central counties, but could be more widespread.

Several farmers reported a spotty distribution of yellowed areas in their oats fields. Close examination shows that the leaves have yellowed partly or entirely, often with yellow stripes running the long way.

In some cases, the yellowed area covers just the outer half of the leaf, with the lower or inner half remaining normal.

Johnson says an exact diagnosis of this problem hasn't been possible so far, but the best estimate so far puts the blame on light frost injury to individual, more susceptible, plants. He has found no disease organisms or insects to which such damage may be attributed.

All oats varieties seem to have been affected, but the damage has not hit barley and wheat. The greatest effect is on oats fields of higher fertility. Sometimes the damage is limited to scattered plants and in a few cases an affected area will be 20 feet in diameter.

Johnson says there is also rather wide prevalence of bacterial halo blight, a leaf spot disease of oats, in west central counties. These spots appear dead in the center, with a lighter, water-soaked area around the spots.

Neither the blight nor the frost damage calls for treatment or plowing up the crop, Johnson says. The crop should outgrow either condition.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
June 4, 1963

Immediate release

## ROSE GROWERS' DAY AT U JUNE 21

June 21 has been designated as the 22nd annual Rose Growers' Day on the University of Minnesota's St. Paul Campus.

Highlighting the event will be a morning program of talks on various phases of rose growing and an afternoon tour of rose gardens in St. Paul.

LaVern A. Freeh, head of the Department of Agricultural Short Courses, will bring greetings to the group at 9 a.m. in the North Star Ballroom, St. Paul Campus Student Center. R. A. Phillips, University assistant professor of horticulture, will discuss the new University-developed rose, Viking Queen. Ronald Twite, rosarian, Minneapolis Park Department, will give tips on pest control. Varieties and culture of miniature roses will be described by Robert E. Steffen, Winona; old-fashioned roses by Joseph J. Kern, rose grower from Mentor, Ohio. Mrs. Walter McKinnon, designer for Elling's Birch Lake Nursery, St. Paul, will tell how to use roses in landscaping.

A question and answer session will be moderated by L. C. Snyder, head of the University horticulture department.

Sponsors of Rose Growers' Day are the University Department of Horticulture, the Minnesota Rose Society, the Minneapolis Board of Park Commissioners and the St. Paul Park Department. Phillips is program coordinator.

Registration for the short course is \$2. A charge of \$1 will be made for the bus ticket for the tour. Programs and advance registration blanks may be obtained from Department of Agricultural Short Courses, Institute of Agriculture, University of Minnesota, St. Paul.

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63-168-jbn

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
June 4, 1963

Immediate release

## ROGER HARRIS, EXTENSION SOIL CONSERVATIONIST, TO RETIRE

One of the men who helped foster the development of better land use and conservation methods in Minnesota will retire from the University of Minnesota staff this month.

He is Roger Harris, 67, extension soil conservationist on the St. Paul Campus since 1948.

Harris has done a variety of educational work in recent years on a broad range of land use and conservation problems. He developed a land use judging and evaluation program for high school students which has had a total enrollment of over 15,000 in the past decade.

He has worked with farmers, county agents, the State Soil Conservation Committee, local soil conservation districts and high school agriculture teachers. His efforts involved educational programs on fertility, land use, water control, contour stripping and terracing, and improved tillage practices.

Harris was born and raised in Rice and Douglas counties, served in the U. S. Army in Europe in World War I, and graduated from the University in 1921. He was a vocational agriculture teacher in Two Harbors, Minn., from 1921-28 and worked with a feed and fertilizer firm in Duluth from 1928-32. He was an agricultural extension agent in Wright and Pine counties from 1932-36 and was with the Farm Security Administration from 1936-43, first in northeastern Minnesota and then in the state FSA office in St. Paul.

In 1943 he came to the St. Paul Campus as an extension farm management specialist in charge of phosphate demonstrations for the Tennessee Valley Authority. It was during this period that he developed his strongest interest in soil and water conservation.

(more)

add 1 -- Roger Harris

"I was working with about 200 farms in 22 counties," he recalls. "Every day I could see a need for better land use, calling for different kinds of practices. Important as fertilizer was, much more was needed."

Harris was named to his present position in 1948. He worked closely with the State Soil Conservation committee as new soil conservation districts were established, helping coordinate educational work of the Minnesota Agricultural Extension Service in this area.

One of the early needs which he saw was for a uniform classroom teaching program in land use in high schools. He developed an evaluation system used by high school vocational agriculture classes around the state, in cooperation with Soil Conservation Service personnel. The system is much like that now being used by county Rural Areas Development groups in evaluating their land resources.

"It's pretty much a complete land inventory," Harris explains. "The student learns how to analyze the physical features, predominant hazards, land capability classification and appropriate practices for a field." The score card based on this system is used annually by some 50 high school teams who compete in a land judging contest at the State Future Farmers of America convention.

Looking back, Harris views with satisfaction the growth of land conservation as a whole. "First came the upsurge of improving fertility. Then came changes in land use--farming the best fields more intensively and putting the more erodible ones into grass.

"Then there was the establishment of watershed districts. Along with this movement came the contour strips and terraces that helped prevent the erosion that has been ruining much of the countryside."

Harris is a co-author of a University publication, Better Soils for Better Living.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
June 6, 1963

Immediate release

## BEEF, DAIRY PRODUCTS, MELONS GOOD BUYS

Foods appropriate for backyard barbecue meals are being featured in markets this week.

Good meat buys for barbecuing include steaks, hamburger and beef roasts, according to Mary Ryan, extension consumer marketing specialist at the University of Minnesota. The large beef supply this year continues to make beef a good value during June, she says. Many markets continue to offer week-end specials on various cuts or grades of beef.

Milk, ice cream, cottage and other cheeses will be plentiful all during June Dairy Month. They are among the oldest and finest convenience foods, Miss Ryan says, and in Minnesota these foods are always good buys. In fact, 15 percent of your food bill spent for milk will supply 25 percent of your nutritional needs.

Melons, an easy answer to the dessert problem for outdoor and indoor meals, are beginning to come to Minnesota markets in good supply. June, July and August will be the peak months for cantaloupe and watermelon. Many Twin City markets are featuring cantaloupe this week.

Since melon quality is not always easy to detect, Miss Ryan gives some guides for shoppers to follow. First, smell the cantaloupe. A fragrant, sweet odor denotes ripeness. Next, look at the stem end. A slightly sunken, calloused scar at the stem end shows that the melon was mature when picked. Select watermelon that is firm to the touch. It may be solid green to gray, depending upon variety. The underside may be yellowish, but if it is white or pale green the melon is probably immature.

Canned fruits and vegetables are still selling at reasonable prices, <sup>Look</sup> for specials on corn, peas, beans and fruit cocktail. Other reasonably priced foods this week include 2-pound cans of coffee, canned tuna fish, canned luncheon meat, bacon, new potatoes and 1 1/2-pound loaves of white bread at supermarkets.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
June 6, 1963

Immediate release

### LEAFHOPPERS MAY BRING CROP DISEASES, BUT NOT HEAVY DAMAGE

Leafhoppers may be causing a fairly high incidence of virus diseases in flax and oats fields, compared to most years, but the problem isn't likely to mean heavy yield losses.

This analysis is made by R. A. Frederiksen, plant pathologist at the University of Minnesota, and is based on recent insect counts, which have been running somewhat above the average for this time of year.

The 6-spotted leafhopper is the vector, or carrier, of a virus that causes blue dwarf disease in oats and crinkle disease in flax. In leafhopper collections recently made at St. Paul, about 7 percent were vectors.

Frederiksen says that infestations of crinkle disease that develop from now on probably will not have much effect on flax yields. Where infestation occurred earlier, there may be some yield reduction, but reduction due to crinkle in any case isn't likely to amount to more than 10 percent even in extreme cases.

Similarly, yield reduction in oats from blue dwarf is not likely to reach more than 5 percent.

No chemical treatments are suggested for these diseases, and neither is likely to be severe enough to merit plowing up the crop.

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63-174-pjt

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
June 6, 1963

Immediate release

## STATE 4-H CONFERENCE, DISTRICT CLUB WEEKS SCHEDULED

More than 2,500 delegates from 4-H Clubs throughout Minnesota will attend the State 4-H Junior Leadership Conference and district 4-H Club weeks during June, Leonard Harkness, state 4-H Club leader at the University of Minnesota, announced today.

From June 25 to 28 4-H'ers will develop their leadership skills through discussions with various speakers and other 4-H'ers at the 43rd annual Junior Leadership Conference on the University's St. Paul Campus. New State 4-H Federation officers will be elected and installed, and recreational events and a tractor operator's contest will complete the program.

District club weeks are scheduled for June 10-14 at the North Central School of Agriculture, Grand Rapids; June 17-21 at the Northwest School of Agriculture and Experiment Station, Crookston; and June 24-28 at the University of Minnesota, Morris.

Theme of the Grand Rapids club week is "1440"--the number of minutes in a day. Participants will discuss making wise use of this time.

At the Crookston club week, 4-H'ers will discuss outdoor life. Separate programs will be held for 12- to 14-year-olds, and older members. Both groups will attend assemblies on wildlife and "Knowing Minnesota." A special feature of the Crookston club week will be one-act plays given by Becker, East Otter Tail, West Polk and Marshall counties.

Camping is the theme of the Morris Club week. 4-H'ers will discuss family camping in relation to three 4-H projects. They will go on a nature hike in the conservation area, they will learn about insects at camp sites in the entomology area and they will learn how to preserve their camping experiences through photography.

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63-173-kmr

## SMALL HAY BALES STUDIED AT UM

The traditional hay bale may be in for some severe remodeling.

The hay bale of the future may be a much smaller, more compact package, tailor-made for mechanical handling and saving forage quality.

Agricultural engineer John Strait at the University of Minnesota has done several years of research on twelve-inch cubic bales, comparing them with the standard bales which are 14 by 18 inches in cross section and about two feet long.

The small hay bale seems to be a natural for the farmer who wants to handle his hay mechanically and save as much quality as possible. It fits in well with a hay making system that includes a field conditioner, baler, self-unloading wagon, batch dryer, and a storage barn.

Here is how such a hay making system works. The farmer cuts the hay in the morning and conditions it, so that the hay is down to 35 to 40 percent moisture and ready to bale by mid-afternoon with good drying weather. The small bales move directly into the self-unloading wagon, from which they can be dropped into the dryer at random.

Unlike larger bales, the small ones do not need to be arranged in any particular way in the dryer. They are left where they fall. After drying, the bales are then elevated into forage wagons or conveyed directly into the storage building.

In his studies, Strait found that drying time ranged from 17-25 hours for small bales averaging 32 to 49 percent moisture at the start. Fuel and electricity costs varied from a little over \$4 to nearly \$7 per ton of dry hay.

Strait says that with the same starting moisture content, cost of drying the twelve-inch cubic bale is about \$1 per ton less than for short standard cross section bales.

These studies show that artificially drying these small bales can mean top quality hay, since few leaves are lost. The hay keeps its bright color.

Batch drying small bales still has some problems, Strait says. The top-layer dries rather slowly and often unevenly. Rearranging some of the top bales near the end of the drying period will shorten the drying time somewhat. Other procedures may also reduce time and cost.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
June 6, 1963

Immediate release

## INSTITUTE OF AGRICULTURE CALENDAR

### JUNE

- 5-9 4-H Conservation Camp, Itasca Park
- 7-9 Western Regional Conference of Young Adults, Waseca
- 9-13 4-H Health Camp, Itasca Park
- 10-14 4-H Club Week, Grand Rapids
- 17 High School Teacher Industrial Institute, Itasca Park
- 17-20 Hot Lunch Workshop, Morris
- 17-21 4-H Club Week, Crookston
- 17-28 Farm Management Approach to Teaching Agriculture,  
St. Paul Campus
- 17 (through July 19) University of Minnesota Civil Engineers Field Project,  
Grand Rapids
- 21 Rose Grower's Day, St. Paul Campus
- 24-25 Midwestern Conference of Parasitologists, St. Paul Campus
- 24-26 Livestock Judging Short Course, St. Paul Livestock Market
- 24-28 4-H Club Week, Morris
- 25-26 Homemakers Workshop, Morris
- 25-28 State 4-H Junior Leadership Conference, St. Paul Campus

### JULY

- 1-19 University of Minnesota Civil Engineers' Field Project,  
Grand Rapids
- 6 Crops and Soils Field Day, Lamberton
- 8-11 Flock Selecting and Pullorum Testing Short Course,  
St. Paul Campus
- 9 Crops and Soils Field Day, Rosemount
- 9-12 Minnesota Agriculture Teacher's Annual Conference, Duluth
- 10 Crops and Soils Field Day, Waseca
- 11 Crops Field Day, Morris
- 16 Crops Field Day, Crookston
- 18 Annual Visitors' Day, Grand Rapids
- 25 Crops and Soils Field Day, Grand Rapids
- 26 Crops and Soils Field Day, Duluth

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63-172-vln

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 6, 1963

To All Counties

4-H News

Immediate release

CORRECTION

The dates for the State 4-H Junior Leadership Conference were incorrect in the story sent you June 4. Correct dates are June 25-28.

-jbn-

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 11, 1963

To all counties

Immediate release

IN BRIEF.....

Farm accidents took 17 lives in Minnesota during April. The most common single cause was tractors, taking six lives, three of which were small children. The other three tractor fatalities were tipping accidents, according to Glenn Prickett, extension safety specialist at the University of Minnesota. Two youngsters died from hanging as a result of playing with hay ropes in barns.

\* \* \* \*

Compact hay bales--tailor made for mechanical handling and saving hay quality--may be a thing of the future for Minnesota farmers. Agricultural engineers at the University are studying a system involving field conditioners, balers, self-unloading wagons, batch driers and storage barns. Hay can be cut and conditioned in the morning, baled at 35 to 40 percent moisture in the afternoon, and then dried over night. Advantage of small bales: They don't need to be stacked in order, either in drier or barn. They are dropped at random and left where they fall. Also, drying cost for 12-inch cubic bales is about \$1 per ton less than for standard-sized bales.

\* \* \* \*

Leafhoppers and yield losses: Those six-spotted leafhoppers may be bringing a fairly high incidence of virus diseases to flax and oats fields this year. But plant pathologists at the University of Minnesota say the yield losses are not likely to be great enough to merit plowing up the crops. Reduction due to crinkle disease in flax, one of the virus diseases, isn't likely to amount to more than 10 percent even in extreme cases. Blue dwarf in oats probably won't take more than 5 percent.

\* \* \* \*

Don't overstretch fence wires. It didn't happen in the days of hand stretching, but pulling fence wire up with a tractor can lead to a peculiar problem. You may stretch it too much, thereby losing the "hump" between the stays. When that happens, the fence will loosen in warm weather, say fencing experts at the University.

# # # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 11, 1963

To all counties  
Immediate release

EMERGENCY CROPS TO  
MEET FEED SHORTAGES

Did old man winter get to your legumes and grasses?

If so, you may be faced with a feed shortage problem.

However, you can still adjust crop plans to meet feed requirements, according to Wallace Brookins, acting extension agronomist at the University of Minnesota. Brookins lists several crops that you can plant now to correct the problem.

EARLY OATS: Varieties planted now can make good pasture when 10 to 14 inches tall. Brookins recommends strip grazing for efficient use.

Mixtures of oats and peas also makes a good silage when cut early. Use 48 pounds of oats and 60 pounds of peas in your mixture. Ground corn, corn and cob meal, and molasses can be added as preservatives to increase the feed value.

MILLET: Makes a fair quality silage when planted at 25 to 35 pounds per acre and harvested in the early milk stage.

SOYBEANS: You can plant soybeans up to July 1 and harvest them as hay or silage.

SUDAN GRASS: A quick growing crop that can be used as hay or pasture. It is also high in feeding value.

A mixture of sudan grass and soybeans can also be used as silage.

RYE: You can plant winter rye in early August and use it for a late fall pasture.

RAPE: A good crop for hog and sheep pasture. It will produce abundant growth late in the season.

New seedlings of alfalfa-grass can be planted before August 15 without a companion crop. This will enable you to re-establish your legume so you will have enough forage next year.

Additional information concerning emergency crops or the re-establishment of alfalfa-grass stands is available at your county agent's office.

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Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 11, 1963

To all counties  
ATT: Home Agents  
Immediate release

HERE ARE WAYS TO  
KEEP HOUSE COOL

Making the rooms in your home look cool will go far toward keeping members of the family feel cool on hot, humid days.

Any room will appear cooler and be much easier to dust if some of the decorative accessories are put away for the summer, Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota, points out. Uncluttered, smooth surfaces are restful, too. Bring out a few summery accessories such as light covers for sofa pillows, and put away pillow covers that have a distinctly winter look.

If your rooms are decorated in golds and oranges, try to subdue these colors by using greens, blues and whites in accessories during summer for a cool effect.

Although your home will not be any cooler if you put up lightweight curtains in place of heavy draperies, sheerness in curtains does give the impression of airiness.

Davenport upholstered in wool or a scratchy, warm material can be slipcovered with a light, smooth fabric. If the budget won't allow a slipcover, an attractive, inexpensive cotton throw can serve the purpose.

Don't forget one of the simplest ways of keeping heat out -- drawing shades or blinds during the warmest part of the day.

Instead of heating up the kitchen with cooking and baking, use the backyard barbecue or fireplace whenever possible and enjoy many of your meals outdoors. In the hottest weather, prepare a simple cold supper to serve on the porch. Or, if you have cooking facilities in the basement, prepare and serve some of your meals there.

Set a pretty table and use your imagination in serving foods so they appear cool, Mrs. Zabel suggests. For example, tall blue glasses of lemonade and tall amber glasses of iced tea served with a sprig of mint look appetizingly cool. Terry tablecloths that absorb moisture from glasses or place mats of straw or other easy-care materials look summery and will spare the hot ironing chore. Add a bowl or vase of fresh flowers as a centerpiece to make your table inviting.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 11, 1963

To all counties

4-H NEWS

Immediate release  
(use if appropriate)

COUNTY TO HOST  
MARYLAND 4-H'ERS

\_\_\_\_\_ Maryland 4-H Club members participating in the Minnesota-  
(no. written out)  
Maryland exchange will spend \_\_\_\_\_ days in \_\_\_\_\_ 4-H homes in \_\_\_\_\_  
(number)  
County this summer, announces \_\_\_\_\_ Agent \_\_\_\_\_.

After attending sessions of the Minnesota Junior Leadership Conference on the St. Paul Campus of the University of Minnesota, the Maryland 4-H'ers will head for northern Minnesota June 28. They will live with other club members in their homes, exchanging ideas about 4-H and facts about the two states. From here they will travel to southern Minnesota, arriving July 5 to stay in 4-H homes for six days. They will depart for home by chartered bus on July 12.

Delegates for the exchange are chosen on the basis of their maturity, citizenship and leadership. Club members are selected who will benefit from their experiences and share information with other 4-H'ers.

The exchange program began with Mississippi in 1951 and continued through 1956. For the next three years, Minnesota participated in an exchange program with Manitoba. The Minnesota-Maryland exchange began in 1960. 4-H'ers from Minnesota traveled to Maryland in both 1960 and 1962 to visit 4-H families and the National 4-H Center in Washington, D. C.

# # # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 11, 1963

To all counties  
Immediate release

LOW MOISTURE LEGUMES  
MAKES GOOD SILAGE

Alfalfa silage with a sweet smell?

Farmers are making it around Minnesota this year. It's called haylage and the biggest trick is to get the right moisture content before it goes into the silo.

The right moisture range for haylage and grass silage is 50 to 70 percent, according to agronomist Lawrence H. Smith at the University of Minnesota.

Why is moisture content so important? Smith explains that moisture is linked to acid production in the silo. For proper silage preservation, the acid content of the silage must be high enough so a pH of 4 is reached. (The higher the acidity, the lower the pH value.)

The amount of acid produced by bacteria in a silo depends upon the moisture, carbohydrate, and mineral content of the ensiled forage crop. Minerals in alfalfa hinder the formation of acid in the silo by "salting out" the acids as they are produced by the bacteria. Some of these minerals are lost when alfalfa is allowed to wilt, thus making acid production easier.

Smith recommends that alfalfa be wilted to 50 to 70 percent moisture before putting it into the silo. One shouldn't allow the crop to wilt below 50 percent moisture because packing difficulties makes the exclusion of air in the silo more difficult. Trapped air will cause spoilage through heating.

-more-

add 1 - low moisture legumes

The moisture in alfalfa can be estimated with the "squeeze test." Roll a sample into a ball, squeeze it, and then release it. If the ball opens slowly, it is just right for haylage production. If it opens rapidly, the legume is too dry for making haylage. On the other hand, the legume is too wet if the ball doesn't open at all.

One way to get the proper pH when filling the silo with high moisture legumes is to add a source of carbohydrate. This offsets the effect of the minerals and increases acidity. You can add a carbohydrate material such as dry molasses at a rate of one percent of the total dry weight of the forage.

Haylage has other advantages too. It reduces the risk of crop damage due to rain, wind, sun. It reduces labor costs, and because of its low moisture content, it doesn't freeze to the silo walls.

Haylage has the possibilities of playing an important role in livestock feeding. You may do well by cashing in on its benefits.

## ##

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 11, 1963

To all counties  
Immediate release

ECONOMIC GROWTH  
MEANS PROBLEMS  
IN ADJUSTMENT

Whether your community is growing rapidly or losing population, the problem of adjustment to changing conditions is probably no stranger.

The scope of some of these adjustment problems is described by Paul Hasbargen, extension economist at the University of Minnesota. He emphasizes the fact that adjustment is not just a concern of areas of declining population.

Think of a community which is growing rapidly. Will it follow an orderly pattern of settlement and land use? Only if the community does some planning for expanded recreation, police protection, water and sewage, and other facilities. Pressures for educational facilities will be acute.

Also, and related to the problem of facilities, is the need for cooperation and coordination between different government units. Can village governments cooperate with each other, and with city and county political units?

What happens to agriculture in a growing, urbanizing area? Here, there may be block after block of residential homes right down the road from barns and corn fields. Is the tax valuation system up to date with this trend? Will there be an orderly transfer of land use, with everyone getting equitable treatment?

Next, consider communities in areas of population decline. There may be some real problems in financing adequate community facilities in the face of a declining tax base. Some land use planning and zoning may help here.

What about schools and churches? Hasbargen says community residents may need to consider consolidation. It may be possible to lower costs while improving facilities.

add 1 - problems in adjustment

Furthermore, communities may need to look to coordination of efforts over broader areas than single towns--or even single counties. Hasbargen believes that small towns in rural areas can ill afford to compete too vigorously for a clientele which is either not growing or even going down in numbers.

Declining opportunity for employment in agriculture brings up a rather sensitive point. If there is heavy out-migration from a rural area, is it wise to develop programs to stop this outgoing flow? Not necessarily, Hasbargen says. Rather, he suggests that residents of agricultural areas realistically assess the carrying capacity of their land for economic farm units.

If it turns out that existing farms are too small, Hasbargen says, it won't enhance the economic welfare of the community to maintain the status quo. Instead, it would be better to figure out the realistic resource requirements for an adequate income and then promote programs which will help attain these requirements.

Hasbargen concludes that with an improved understanding of forces behind current population shifts, communities can better plan programs to facilitate their own economic advancement. In terms of their own stated goals, they may find it unwise to expend most of their efforts trying to attract new industries when chances of success are small. Many development groups have found that their time can be better spent at improving existing industries than trying to attract new ones.

# # # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
June 11, 1963

Immediate release

## MINNESOTA SCHOOL LUNCH PERSONNEL HAVE WORKSHOP

Food industry representatives, staff members of the U. S. Department of Agriculture, the Minnesota State Department of Education and the University of Minnesota will be among the speakers and teachers at three school lunch workshops for Minnesota school lunch personnel this month.

The workshops will be held at the West Central Experiment Station, Morris, June 17-20 and on the St. Paul Campus at the University of Minnesota June 24-27. First of the workshops is being held this week (June 10-13) at the Southern School and Experiment Station, Waseca. Mrs. Margaret Dayton, director of lunch rooms, Wayzata Public School, is program coordinator.

School lunch personnel may still register for the Morris and St. Paul Campus workshops by writing the Department of Agricultural Short Courses, University of Minnesota, St. Paul 1.

The workshops are sponsored by the University's Institute of Agriculture and the School Lunch Section of the State Department of Education.

Theodore J. Berning, assistant and deputy commissioner, and Carl Holt, director of School Lunch Section, Minnesota State Department of Education, will speak at opening sessions of the workshops in Morris and St. Paul. Also appearing at both workshops will be Ethel Heaberlin, president-elect of the Minnesota School Food Service Association, and school lunch nutritionist for the State Department of Education; Clarence Gentz, director of the school lunch program, Rochester; Norman Hultinen, the Aslesen Co., Minneapolis; LaVern Freeh, head of the Department of Agricultural Short Courses, University of Minnesota and Mrs. Dayton. Mrs. Dayton will speak on her study of school lunch programs in Europe.

Julianna Austin, area home economist, U. S. Department of Agriculture, Chicago, will be one of the featured speakers at the Morris conference.

Out-of-state speakers at the St. Paul Campus workshop include Mickey Houston, president, Houston Foods, Chicago; Martha Cummings, dietitian and education specialist, Market Forge Co., Everett, Mass.; and Margie Rich, executive consultant, Frank M. Wilson Co., Stockton, Calif.

Nutrition, sanitation, the Type A lunch, tips on purchasing canned goods, fruits and vegetables, labor saving, steam cooking, food management and what's new in food processing, packaging and equipment are among subjects to be discussed.

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63-175-jbn

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
June 11, 1963

Immediate release

## BEEF PRODUCTION GOES UP IN MINNESOTA AND THE U.S.

When you hear talk about declining rural population, you can be sure it doesn't apply to beef cattle.

Numbers of cattle and calves in the U. S. has grown faster than the total human population of the country since 1950. The average inventory per year was 98 million in 1960-1962, according to Ken Egertson, extension marketing economist at the University of Minnesota.

This level is some 23 percent above the average of 78.9 million head in 1949-1951.

Furthermore, the makeup of this cattle population has changed markedly. A decade ago, more than 40 percent of these cattle were dairy animals. Now, dairy cows make up only 30 percent of the total.

Because of this shift to beef, both in proportion and in total number, total production of beef in the country has jumped 55 percent since 1949-1951. Annual beef and veal production nowadays is about 15.6 billion pounds annually.

Cattle and calf slaughter has increased by 24 percent since the 1949-1951 period, Egertson says.

But while cattle numbers are going up, as well as total beef production, so have average weights per animal.

Beef animals are going to market at heavier weights. The average beef carcass weighed 372 pounds a decade ago, compared to about 466 pounds in the 1960-1962 period. Egertson explains three major reasons behind this trend:

(more)

add 1 -- beef production

1. Fewer veal calves. In 1949-1951, 35 percent of the total cattle slaughter was made up of young calves. The figure now is 21 percent.

2. More cattle in feed lots. Only 37 percent of the cattle slaughtered were classified as "fed cattle" in the 1949-1951 period, compared to 52 percent in recent years. This factor alone probably contributed most to increased productivity, Egertson says.

3. Cattle fed to heavier weights. The increase in weight of cattle from feed lots has increased about 5 percent since 1949-1951.

What does all of this mean for the long run beef price outlook? Egertson says it is quite encouraging. Present population estimates are that the U. S. will have at least 210 million people by 1970-1972. Per capita demand of beef increased by almost two pounds per person annually during the 1950's, but this increase will be slightly less during the next decade.

To meet the estimated demand by ten years from now, cattle and calf inventories would have to be about 122-128 million head. That is roughly 25-30 million head above the current annual inventories.

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63-176-pjt

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
June 11, 1963

Immediate release

## CHEMICALLY TREATED BLANKETS HELP CONTROL SHRINKAGE

If you're in the market for a wool blanket, you may be wise to select one that has been chemically treated for shrinkage.

Preliminary results of research being carried on by home economists at the University of Minnesota on the effect of laundering on chemically treated blankets show that the appearance and the hand or feel of the treated blankets in the tests remained much the same with progressive washings. The chemical treatment was especially effective in controlling warp (lengthwise) shrinkage.

After 10 washings, however, from 6 to 9 percent filling shrinkage occurred in both the treated and untreated blankets. Nine percent shrinkage in length of the untreated blanket would be a loss of approximately 8 inches in a 90-inch blanket. As a result, there would be little length for tuck-in, since this loss amounts to more than the depth or thickness of the mattress.

Proper washing of blankets--in softened, lukewarm water with little agitation--is extremely important in maintaining the original warmth and fluffiness of either untreated or treated blankets, according to Suzanne Davison, professor of home economics in charge of the blanket research at the University of Minnesota. A too severe washing procedure--with hot water and much agitation--would felt and stiffen the blankets, whether they were chemically treated or not, though the most damage would be done to those not treated.

Miss Davison gives a progress report of the blanket study in the current issue of Minnesota Farm and Home Science, University of Minnesota Agricultural Experiment Station publication. The findings reported are based on a limited phase of the study being carried out in laboratories of the University's School of Home Economics. The Minnesota Agricultural Experiment Station is working cooperatively with the South Dakota Agricultural Experiment Station to determine the effect of laundering on wool blankets especially treated for controlling shrinkage.

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63-177-jbn

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
June 13, 1963

Immediate release

## MARYLAND 4-H'ERS TO MINNESOTA FOR EXCHANGE

Thirty-six Maryland 4-H Club members and two adult leaders will arrive in St. Paul on June 26 to participate in the Minnesota-Maryland Exchange.

Purpose of the Minnesota-Maryland program is to promote an exchange of ideas on 4-H work and citizenship training and to broaden knowledge of the United States, specifically of the two states represented.

After attending the Minnesota 4-H Junior Leadership Conference June 27, the Maryland delegates will leave by chartered bus for Grand Rapids. Families in 10 northern Minnesota counties will be their hosts from June 28 through July 4.

On July 5, Maryland 4-H'ers and their host families are invited to a picnic in the Mille Lacs Lake area before the delegates leave for 10 counties in southern Minnesota where they will stay until July 11.

Clear Lake Park, Waseca, will be the scene of a final get-together with their second host families at a bean feed sponsored by the Waseca Chamber of Commerce, July 11. A group of 30 Ohio 4-H'ers, participants in a Waseca County-Ohio exchange, will also be guests at the bean feed.

Delegates for the exchange are chosen on the basis of their maturity, citizenship and leadership. Club members are selected who will benefit most from their experiences and share information with other 4-H'ers.

The Minnesota 4-H exchange program began in 1951 when Mississippi was a participant through 1956. For the next three years Minnesota took part in an exchange program with Manitoba. Minnesota-Maryland exchanges began in 1960. That year and again in 1962 Minnesota 4-H'ers traveled to Maryland to visit 4-H families and the National 4-H Center in Washington, D.C. Next year will conclude this exchange when Minnesota 4-H'ers will go to Maryland. Each of Minnesota's 87 counties will have been represented in the exchange by 1964.

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6 3-178 -kmr

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
June 13, 1963

Immediate release

## SOME CHEMICAL RESIDUE IS INTENDED, SOME ISN'T

In the current public issue over chemical pesticides, two questions that keep turning up are these:

How does a chemical move through a living organism, such as a plant? What actually happens between treatment and residue deposit, if any?

Some chemicals leave residues in the plants and soil, and some leave none. The residue itself, up to a point, is what may be needed to accomplish the chemical's job.

Studying the path of a chemical is no simple problem. One investigator who knows this well is A. J. Linck, University of Minnesota plant physiologist, who for several years has been tracing the movement of weed-killing chemicals in different kinds of plants. He discusses the problem in the current issue of Minnesota Farm and Home Science, an Agricultural Experiment Station publication.

Linck says the ideal chemical would be tailor-made to enter the plant readily and move throughout the plant system, if that's what the grower wants. The chemical might make plant cells grow, or it might alter them--whichever is more beneficial. But such a day of tailor-made chemicals is still a fairly long way off.

Not all chemicals enter the plant itself. Some stay on the surface. Cotton farmers use a so-called contact spray which causes the leaves to drop but without getting into the rest of the plant. With 2,4-D, however, effectiveness depends on the chemical's moving throughout the plant system.

If a pesticide does enter the plant, the outcome may depend on both the plant and the chemical.

Some chemicals go to work in their original chemical form, while others must be altered by the crop to have any effect. With 2,4-D, for example, the chemical is broken down by some plants and therefore does not affect them. In weeds, however, the chemical may not be altered at all and is allowed to do its destructive work.

(more)

add 1 -- chemical residue

Some chemicals must move a short way through a plant to do their work, while others must move farther. Some must move from the roots throughout the tops of the plants to be effective.

A chemical residue, Linck states, is a mixed blessing. In some cases, the herbicide accumulates in young seeds. This can prevent the weed seed from germinating in the future, which is all to the good. But it may present a problem in crop plants where seed is harvested for food.

Analyzing plant tissue for the occurrence of chemical residues is not always easy. One test involves adding a chemical substance that turns a certain color if the residue is present. This procedure is based on the principle that most herbicides are colorless to the eye.

But this kind of analysis--called chromatography--also has its problems. Some chemicals, for example, are broken down into components inside the plant, each one of which may cause a positive reaction with the coloring agent. So final analysis is tough unless the research man knows in detail to what extent the chemical has broken down in the meantime.

Residues may also be studied through the use of tagged pesticides. Amino-triazole, for example, may be tagged with radioactive carbon. Then the chemical can be followed throughout the plant with a geiger counter. Here, another problem may arise. The radioactive carbon inside the plant may split off and perhaps join with some other chemical component. Then the count of radioactivity may be somewhat misleading, since the radioactive material will show up wherever it is, regardless of which chemical it happens to be tacked to at the moment.

Linck concludes that it's clear that much more research is needed on the whole problem of chemical residues in plants, and, for that matter, other living organisms.

## STATE HAS SOME FORAGE DISEASES, LITTLE TROUBLE ON GRAINS

Except for a rather widespread occurrence of alfalfa leaf spot diseases, Minnesota growers are having relatively little trouble with crop diseases so far this spring.

Even with the forage diseases, early cutting can in most cases prevent heavy losses in hay quality, say plant pathologists at the University of Minnesota.

Based on observations and reports from around the state and the rest of the nation, the plant pathologists make these statements about different crops:

\* Forage crops--Common leaf spot and black stem on alfalfa are rather widely distributed over the state. These two diseases are most common on the first cutting and could return in the fall. Their damage is confined mostly to defoliation, meaning that if a field is left too long much of the feed value could be lost with the leaves. All varieties are susceptible. Brown spot disease may be a problem later on in the second crop. Some leaf spot has been seen on bromegrass, but again, early cutting is the best remedy.

\* Flax--A rather high incidence of crinkle disease has been noted, because of an abundance of the leafhoppers that are carriers of this disease and blue dwarf in oats. However, yield reduction due to crinkle is not likely to run more than 10 percent even in extreme cases. No chemical treatments are suggested and there should be no reason to plow up flax fields because of crinkle.

\* Wheat--Indications are that unless there are excessive rains and extremely hot weather there will be little rust on hard red spring wheat in the upper Minnesota valley. Even if stem rust should become prevalent, there would be little effect since more than 90 percent of the acreage is planted to Selkirk, a resistant variety. This prediction is based on the fact that the wheat crop in southwestern states is well along or already harvested, with only traces of rust being found.

\* Peas--Little evidence of disease has been found. Peas are a bit late, because of wet weather earlier this year. A danger of root rot exists, but even if it does occur it won't be until early July.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
June 13, 1963

Immediate release

## AMATEUR ROSE GROWERS TO SPEAK ON U PROGRAM

A grower of old-fashioned roses will be one of the headline speakers at the 22nd annual Rose Growers' Day in the Student Center on the University of Minnesota's St. Paul Campus Friday, June 21.

He is Joseph J. Kern of Mentor, Ohio, a member of the American Rose Society, whose hobby is growing old-fashioned roses. Because of their hardiness and their usefulness in landscaping, old-fashioned roses are increasing in popularity.

A grower of miniature roses, Robert E. Steffen, Winona, will describe his success with this type. He will discuss the various kinds of dwarf roses and give recommendations on their culture.

R. A. Phillips, assistant professor of horticulture at the University of Minnesota, will introduce Viking Queen, a new pink floribunda-type climbing or pillar rose developed by the University horticulture department.

Mrs. Water McKimmon, landscape designer for Elling's Birth Lake Nursery, St. Paul, will suggest ways of using roses in landscaping, and Ronald Twite, rosarian for the Minneapolis Park Department, will give practical recommendations for pest control of roses. L. C. Snyder, head of the horticulture department, will moderate a question and answer session at the close of the morning's program.

A tour of rose gardens in St. Paul is planned for the afternoon.

Registration for the short course is \$2. Bus ticket charge is \$1 for the tour. Programs and advance registration blanks may be obtained from Department of Agricultural Short Courses, Institute of Agriculture, University of Minnesota, St. Paul.

Sponsors of Rose Growers' Day are the University Department of Horticulture, the Minnesota Rose Society, the Minneapolis Board of Park Commissioners and the St. Paul Park Department.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
June 13, 1963

\*\*\*\*\*  
\*For release at 3 p.m. \*  
\*Monday, June 17 \*  
\*\*\*\*\*

## UM RESEARCHERS REPORT STUDIES ON MILK PRODUCTION FACTORS

LAFAYETTE, IND.--Several findings on the milk let-down problem in dairy cows were reported here today by research men from the University of Minnesota.

They explained several aspects of how the amount of milk which a cow releases at milking time is related to interval between milkings, milking machine operation, and other factors. Two principle findings were that let-down is greater with shorter intervals between milking and with faster-than-usual milker machine pulsation rate.

The reports were made at the annual meeting of the American Dairy Science Association at Purdue University.

In several different projects, the researchers measured "complementary" milk, meaning the milk left in a cow's udder after milking is completed. Practically all cows retain some complementary milk, but the actual amount varies widely. Some cows hold back little or none, some as much as 20 percent or more of all they produce.

Milk let-down has been known for some years to depend upon oxytocin, a hormone which a cow secretes upon initial stimulation when milking begins. In general, the better the stimulation, as in udder washing, the better the oxytocin secretion and the better the let-down.

Oxytocin, however, is not secreted at as great a rate once milking is underway, and what was initially produced disappears at the rate of 50 percent in five minutes.

Researchers measure the amount of complementary milk by injecting a cow with oxytocin after milking. Then the complementary milk is released.

Naturally, a dairyman would like cows to hold as little complementary milk as possible. The Minnesota researchers reported these findings:

1. Milking interval. Cows milked four times daily produced nearly 8 percent more milk per day than did those on twice-daily milking. The difference, the researchers concluded, is due both to increased synthesis of milk and to less retention of complementary milk. With shorter intervals, there is less milk to be taken at each milking and therefore less time is required and the milking is completed while there is still enough oxytocin present for maximum let-down. (more)

add 1 -- milk let-down

2. Milker pulsation rate. In another experiment, researchers found that cows could be milked in less time and with less complementary milk left in the udder if the milker rate was 70 pulsations per minute, compared to 50 or fewer. In the past, 50 has been the standard rate used on most milkers. A pulsation is one cycle of vacuum production and release.

3. Operators. One study showed that even with highly skilled men doing the milking, cows would withhold more complementary milk with some persons than with others. Just what makes the difference is not entirely clear; gentle handling seems to be important, but the research men say that probably isn't the whole story.

4. Checking on complementary milk. Any dairy farmer who wants to go to the trouble can find out for himself how much complementary milk a cow is holding, if he can get some oxytocin. He simply removes all the milk possible by machine and stripping and makes the injection. Then the complementary milk is released.

The complementary milk problem has been studied for several years. A cow may have a good mammary system, but will be a poor asset if she doesn't secrete enough oxytocin to let most of her milk down at milking time.

One important thing, research has shown, is stimulation when milking starts, as through washing the udder. And of course, rapid milking is important since amount of oxytocin reduces as time goes on and cows don't keep on secreting it during the milking process.

While much remains to be found out about this problem, many dairy scientists suspect that complementary milk is linked to the early "drying up" of some cows. The hypothesis is that if a cow holds much milk back, it may in time reduce her ability to produce milk.

The Minnesota reports were given by dairy researchers G. E. Miller, G. D. Marx, A. C. Linnerud and K. E. Jorgensen. Others involved in the studies were E. V. Caruolo, J. D. Donker and R. J. Gerrits.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
June 13, 1963

\*\*\*\*\*  
\*For release at 3 p.m. \*  
\*Monday, June 17 \*  
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## FLY CORN SHOWN EFFECTIVE IN UM EXPERIMENTS

LAFAYETTE, IND.-- Pretty but potent strings tacked to barn ceilings offer one way to get rid of houseflies that are such a nuisance to dairy cows and dairymen.

E. C. Frederick, staff member at the University of Minnesota's Crookston experiment station, reported today that insecticide-impregnated colored fly cords reduced housefly populations in dairy barns by 70 to 90 percent in recent experiments.

The technique involves attaching a series of these cords along the ceiling of the barn, high enough to avoid direct contact with cows or people. The cords are thin and brightly colored, such as red, to attract houseflies.

A fly landing on the string is almost a sure goner, and the string maintains its killing power throughout a whole summer.

Frederick compared fly counts in two barns--one with such cords put up in June and one without any until August. During June and July, it wasn't unusual to find 25, 30, or even 40 flies in a 4 -foot square ceiling area of the barn without cords.

Where the cords had been installed, counts on the same days averaged only one or two flies in the same size area. And when Frederick in August installed the cords in a barn previously untreated, fly counts quickly went down to the low levels of the one that had the cord before.

The cords were impregnated with diazinon and parathion. They were effective largely against houseflies only, but had little effect on horn and stable flies. However, houseflies are by far the most common ones inside barns.

Frederick didn't check for effect of fly control on milk production, but the biggest effect is dairy sanitation and cow and human comfort.

The cords are not widely available yet in Minnesota, but are produced by some manufacturers. Cords with other insecticides are also being developed.

The research had been conducted in cooperation with L. K. Cutkomp, University of Minnesota entomologist.

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June 13, 1963

\*\*\*\*\*  
\*For release at 10 p.m. \*  
\*Monday, June 17 \*  
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## UM RESEARCH FINDING MAY LEAD TO TEST FOR DENATURED WHEY PROTEIN

LAFAYETTE, IND.-- A finding that may ultimately lead to a useful method for evaluating non-fat dry milk by cottage cheese manufacturers and other processors was reported here today by University of Minnesota research men.

Dairy industries researchers W. H. Sawyer and S. T. Coulter, and biochemist Robert Jenness described a newly-developed way to determine the amount of denatured whey protein in non-fat dry milk.

The report was given at the American Dairy Science Association meeting at Purdue University.

"Denatured" whey protein is that which is altered in heat treatment, as in dry milk manufacturing. A large amount of denatured whey protein would lower the quality of cottage cheese made from non-fat dry milk.

Estimating the amount of this denatured whey protein has been extremely difficult, especially with dry milk of unknown previous heat treatment. The more the heat, the more the denaturation. Non-fat dry milk is therefore classified according to high-, medium-, or low-heat treatment.

But let's say a manufacturer has a sample of non-fat dry milk and doesn't know what the previous heat treatment was. He can separate out the non-denatured whey protein by acid precipitation. Denatured whey protein, however, then remains with the casein, the other kind of milk protein.

The problem, then, is in distinguishing the denatured whey protein from the casein. Sawyer, Coulter, and Jenness tested a chemical analysis which effectively made the distinction. The procedure may not be developed into a usable test for some time, but the principle has been established.

The analysis involves a procedure that breaks some of the chemical bonds in the protein molecules, thereby setting free molecular components containing sulfhydryl groups. The presence and amount of these groups can be determined directly, thus estimating the amount of total whey protein. Then the amount of denatured whey protein is the difference between the amount of non-denatured whey protein and the estimated total.

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63-181-pjt

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June 18, 1963

Immediate release

#### 4-H'ERS TO ATTEND STATE JUNIOR LEADERSHIP CONFERENCE

Approximately 750 Minnesota 4-H Club members will attend the State 4-H Junior Leadership Conference June 25-28 on the St. Paul Campus of the University of Minnesota.

This 43rd annual 4-H educational event at the University is planned to help junior leaders gain leadership skills and become better acquainted with the University, according to Stanley Meinen, assistant 4-H Club leader at the University of Minnesota.

LaVern Freeh, director of Agricultural Short Courses at the University, will speak on "Leadership--Opportunity, Obligation," opening the conference June 25. After the assembly, delegates will visit points of interest on campus before hearing about the National 4-H Conference from the four Minnesota delegates.

Wednesday, June 26, George Donohue, extension rural sociologist at the University of Minnesota, will discuss group leadership. Through group discussion, 4-H'ers will analyze leadership roles within a group. The remainder of the day 4-H'ers will take part in workshops, enjoy a barbecue and attend the Twin-Detroit ballgame.

Featured speaker at Thursday's assembly program on "International Dimensions in Citizenship" will be Charles T. Vetter, Jr., lecturer, U. S. Information Agency, Washington, D. C. Vetter will talk about his experiences in Russia and will give deeper insights into the American democratic system by playing the role of a Communist in answering questions. That afternoon delegates will attend a career exploration session and in the evening they will be guests at a banquet sponsored by the Minneapolis Chamber of Commerce.

Following the banquet 4-H alumni awards will be presented to Mrs. Albert Sarver, Ada; Mrs. Charles Bishop, Wells; Clifton Paulson, Aitkin; and Richard Fitzsimmons, Argyle. The new Friends of 4-H will also be announced.

Three International Farm Youth Exchange delegates, Maria Angeles, Peru; James Swain, Northern Ireland; and William Spencer, Australia, will speak to the delegates Friday morning before the installation of the new 4-H Federation officers.

This year's conference is emphasizing group discussion. Thirty-five older 4-H members have been invited to be discussion leaders. This new feature of the conference is made possible financially by the Fullerton Lumber Company which is providing scholarships for the 35 young people to attend the conference.

Thirty-five Maryland delegates who will live with 4-H families in the state will be guests at the conference.

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Immediate release

### PARISITOLOGISTS TO MEET AT UNIVERSITY JUNE 24-25

A discussion of tropical medicine in Central America and Mexico will highlight the 15th annual Midwestern Conference of Parisitologists June 24-25 at the University of Minnesota.

Franklin G. Wallace, University of Minnesota zoologist, will be the speaker at the conference banquet at 6:30 p.m., June 24, in the Junior Ballroom of Coffman Memorial Union on the Minneapolis Campus. All the other sessions will be held on the St. Paul Campus.

Wallace recently toured Central America and Mexico for 8 weeks as a part of a five-member team studying tropical medicine and parisitology.

The conference will open at 9 a.m., June 24, with registration in the St. Paul Campus Student Center. A series of demonstrations on parisitology will be conducted in the afternoon in the Veterinary Science Building, and there will be a short business meeting.

A symposium on "Host Specificity of Animal Parasites" will be held the morning of June 25. Besides Wallace, the panel will include R. M. Cable of Purdue; G. L. Hoffman of South Dakota; L. J. Thomas, and N. D. Levine of Illinois; A. C. Todd of Ohio and D. T. Clark of Michigan.

About 80 zoologists and parisitologists from all over central United States are expected at the conference.

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63-186-vln

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June 18, 1963

Immediate release

## AGRICULTURE NEEDS 'BASIC ' RESEARCH MINNESOTA SCIENTIST SAYS

Many of the arguments about what is "basic" research and what is not have little relevance for agricultural scientists, H. S. Sloan, director of the University of Minnesota Agriculture Experiment Station, said this week.

He discussed basic research at a session of the Land Grant Administrators' Seminar in Agricultural Administration now underway at Colorado State College in Fort Collins.

Sloan said that the agricultural scientist generally feels that basic research has to produce some useful results, if only that of providing starting places for work of other basic researchers. In any case, he said, it is frequently difficult to tell where the basic research leaves off and the applied research begins.

Sloan did not minimize the importance of doing basic research. He said that the "reservoirs of knowledge" must constantly be replenished by the basic researcher as the applied researcher uses the knowledge to meet the increasing challenge of our technology.

Sloan said he does not feel that any advantages would derive from pulling together all the researchers under their basic science discipline; for example, putting all biological scientists together. This procedure has been suggested.

He said that many advantages result from having the basic researchers working in the various departments of agriculture and in the experiment stations. There is a stimulation of ideas which comes from having them in day-to-day "conversation range" of the applied researchers and the others in the departments and in the seminars, staff meetings and group discussions so much a part of departmental operations. Basic researchers also become stimulated by contact with practical needs of agriculture, he said.

(more)

add 1 -- basic research-Sloan

Sloan pointed out that experiment stations and institutes of agriculture provide an effective setting for cross disciplinary interchange deemed so important in today's scientific communities. The representation of many different disciplines in the agricultural experiment stations permits solution of a wide variety of problems, many of which do not fall into a strict departmental or disciplinary area.

Agriculture in underdeveloped countries likewise will tend to benefit from the agricultural departments keeping their basic researchers, Sloan said. Few new nations can afford to do basic research for which they rely on the U. S. and other agricultural scientists, but they are getting to the place where applied researchers can convert "basic" data to the needs of their own soil, climate and agricultural situations.

Graduate programs in the institutes of agriculture likewise benefit from having basic researchers on their staffs to stimulate and give guidance to students whom agricultural colleges will be training in increasing numbers, Sloan said.

He mentioned the contribution of research to the tremendous agricultural achievements of World War II.

He pointed out that from doing practically no basic research, experiment stations have moved forward until now 35 percent of their research is "basic" and funds from federal sources are constantly being increased for this purpose.

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63-187-pjt

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 18, 1963

To all counties  
Immediate release

CORN SILAGE  
WON'T ALWAYS PAY  
FOR BEEF CATTLE

Corn silage may produce good gains in beef cattle, but not always at a profit for the beef man.

The problem is that silage, while making more beef per acre, does add some extra cost. It calls for extra protein supplement, specialized equipment, and more labor for harvesting.

Agricultural economists W. A. Tinsley and S. A. Engene at the University of Minnesota recently analyzed this problem. They used data from University feeding experiments and corn records from the Southwestern Minnesota Farm Management Service.

In three feeding trials, involving some 200 yearlings, a ton of silage replaced 7.4 bushels of corn. An extra 56 pounds of protein supplement were used.

Now look at data from the farmers. They harvested about  $10\frac{1}{2}$  tons of silage, or 61 bushels of corn per acre annually since 1955. Therefore, for every ton of silage they harvested they gave up 5.8 bushels of ear corn.

Since the feeding experiment showed that a ton of silage substitutes for 7.4 bushels of shelled corn, the economists reason, you can subtract 5.8 from 7.4 and end up with a net gain of 1.6 bushels of corn. However, the 56 extra pounds of protein supplement costs \$2.62, while the corn saved is worth \$1.92.

In other words, the net amount of shelled corn saved by harvesting the corn as silage did not pay for the extra protein.

In a University of Illinois study, a ton of silage saved about 7.6 bushels of corn, and required only 36 extra pounds of supplement. Here there was a saving in favor of silage.

add 1 - corn silage

Tinsley and Engene mention a number of other considerations in evaluating corn silage as a substitute for shelled corn. One is that storage costs are probably greater for silage than for an equivalent amount of shelled corn. Initial investment per ton of silage is about \$8.30 per ton of silage for an upright silo. Investment in shelled corn is \$.70 per bushel. Annual costs of owning both types of storage are about 10 percent of the original investment.

Equipment for harvesting silage costs about \$1 per ton of silage annually. But since nearly all farmers own corn pickers, annual costs of these machines are virtually no greater when all corn is harvested as grain than when part is harvested as silage.

Also, labor and field costs for harvesting and feeding silage are usually greater than for ear or shelled corn. More water must be handled with silage. When you add the cost of extra protein supplement and storage to the extra handling cost, you get this picture.

In the Minnesota experiments with yearlings, a ton of silage would have incurred an extra \$3.82 per ton of silage, compared to feeding shelled corn. The extra costs would be about \$2.92 with the Illinois experiments with calves.

By substituting the silage, in either experiment, there would have been about 1.6 bushels of corn for sale or for other use. With only the factors mentioned above, there would seem to be a high cost for saving that amount of corn.

Some farmers, however, already have silos and silage making equipment available. In such a case, the extra costs for use of this equipment would be small. Also, many farmers like silage because it helps reduce risks and spread the work load.

The analysis made by Tinsley and Engene applies only to replacing part of the shelled corn with silage, and it considers only whole plant silage.

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Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 18, 1963

To all counties  
Immediate release

TIMING OF HAY CROP  
CAN UP PROFITS  
BY \$18 TO \$25

From \$18 to \$27 more in your pocket from each acre--that's what this talk about time of hay cutting is all about.

Years of farmer experience and careful research show that cutting at the right time and getting three hay crops can increase total feed value by three tons per acre. Since that extra feed actually cuts your concentrate feed bill, it's money saved.

So says W. W. Brookins, acting extension agronomist at the University of Minnesota.

He says heavy rainfall in early June further emphasized the need for prompt handling of the first crop and good curing or silo storage.

That rain meant that soil moisture reserves are good and the sod should be pushing along a good regrowth. So Brookins urges, don't get caught with July hay down in full bloom. When every plant has a blossom, protein content and digestibility have dropped well below levels that the field had up to the  $\frac{1}{4}$  bloom stage.

When first crop hay was harvested in the bud stage, second and third crops should be taken in  $\frac{1}{4}$  bloom. This is a good plan. Alfalfa needs a period of growth to build up food reserves in the roots, to maintain the stand.

You can look for regrowth of alfalfa and grasses to start blooming about the second week of July.

Third cut should be made not later than September 1. Then with plenty of top growth before freeze-up, to catch snow, the stands will have good protection against drying out and low winter temperatures.

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Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
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To all counties  
Immediate release

**IN BRIEF.....**

More milking, more milk: Cows milked four times daily produced nearly 8 percent more milk per day than did those on twice-daily milking in University of Minnesota experiments. The difference, researchers believe, is due both to increased synthesis of milk and less retention of milk with the more frequent milking. Investigators also found that cows could be milked in less time, and with less milk held back, if the milker machine rate was 70 pulsations per minute, compared to 50 or fewer. In the past, 50 was the standard rate on most milkers.

\* \* \* \*

Pretty but potent: Colored, insecticide-impregnated cords hung along barn ceilings may be just the thing for controlling houseflies. Such cords reduced housefly populations by 70 to 90 percent in experiments at the University of Minnesota's Crookston experiment station. The cords contain parathion and diazinon. A fly landing on one is almost a sure goner, and the cords retain their killing power all summer.

\* \* \* \*

Crop diseases have been of rather mild importance in Minnesota so far this year. Common leaf spot and black stem are widely distributed in alfalfa fields, but early cutting will save the crop in most cases. Indications are that rust will not be a major problem on wheat, since the wheat crop in southwestern states is well along or already harvested, with only traces of rust being found.

\* \* \* \*

Beef cattle numbers are going up. The U. S. had an average annual inventory of 98 million cattle and calves in 1960-62, according to Kenneth Egertson, extension economist at the University of Minnesota. This level is some 23 percent above the 78.9 million head of 1949-51. Furthermore, the makeup of this cattle population has changed markedly. A decade ago, more than 40 percent of these cattle were dairy animals, while the figure today is only 30 percent.

\* \* \* \*

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 18, 1963

To all counties  
Immediate release

MANY FARM HOMES  
ALREADY HAVE  
FALLOUT PROTECTION

Special fallout shelters may not be common, but more than 70 percent of farm households in Minnesota and other nearby states have some fallout protection.

In a recent survey by the U. S. Department of Agriculture in Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska and Kansas, 71 percent of the farm households or more than two in three, had a tight basement or cellar under the house.

Slightly more than one in five had a storm cellar not under the house and one in 25 had some other kind of underground protection.

Fewer than one in 200 had specially designed fallout shelters. And one in seven had no fallout protection of any kind.

Clifton Halsey, extension rural civil defense agent at the University of Minnesota, says that partially exposed basements in one and two story homes will protect a family against 50 to 90 percent of the outside radiation. Basements without exposed walls will keep out 90 to 98 percent.

Basement shelters recommended by the Office of Civil Defense will keep out 99 percent of the gamma rays. Structures which will provide 90 percent protection are fairly adequate against radioactive fallout as near as 100 miles directly downwind from the surface explosion of a 100 megaton nuclear weapon.

Basement shelters recommended by Civil Defense will give adequate fallout protection to within 30 miles of one such explosion.

-more-

add 1 - fallout protection

Farmers in the region could provide some degree of fallout protection for 88 percent of their milk cows, according to the survey. This protection varies with the type of barn or shed available. Basement barns with 12 or more feet of baled hay in the mow may keep out as much as 90 percent of the radiation. Large wooden barns may keep out 50 percent, pole sheds, 25 percent or less. Cattle can stand a little more radiation than people.

Farmers in the area can store about 20 percent of their annual gasoline needs and 30 percent of their annual diesel fuel needs. During periods of impending crisis, it is wise for farmers to keep good supplies of tractor fuel on hand.

Adequate protection against radioactive fallout and emergency supplies of farm fuel are a necessary part of the total defense effort. Farmers can obtain more information on rural civil defense from the county extension agents or civil defense directors.

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Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 18, 1963

To all counties  
4-H NEWS  
Immediate release

LEARN ANOTHER  
WAY OF LIFE  
BY LIVING IT

Would you like to learn, in an informal and first-hand way, about the people, customs, government, agriculture and youth activities of another country?

Perhaps you might like to find out more about the Netherlands, Pakistan, Guatemala, Australia, Peru, Portugal or the Union of South Africa.

A sincere interest in living, learning and working with families in foreign countries is an important qualification for young people who are considering applying for the 1963-64 International Farm Youth Exchange (IFYE) program, says Evelyn Harne, associate state 4-H Club leader at the University of Minnesota. Purpose of this international exchange is to promote better understanding among people of different nations.

To qualify for the IFYE program, delegates must be 20 to 30 years of age, single, in good health, have at least a high school education, a background of rural life, experience in 4-H or similar rural youth groups. Knowledge of a foreign language is desired, but not required.

In addition to studying the geography, history, culture and agriculture of both the United States and the country the IFYE will visit, he will have the opportunity to receive a week of orientation at the National 4-H Center, Washington, D. C.

Young people interested in taking part in the IFYE program should check with the county agent for further details. Applications are due in his office July \_\_.

The IFYE program has exchanged 3,026 young men and women between the United States and 63 cooperating countries since 1948. Plans for 1963 include a total of 135 two-way exchanges.

Minnesota 4-H clubs pay \$1,000 for each IFYE they send abroad. The home county of a delegate selected is asked to contribute up to \$500. Other counties make smaller contributions, and support also comes from industry. Often groups which have had IFYE speakers wish to contribute to the program.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 18, 1963

To all counties  
ATT: Home Agents  
Immediate release

MILDEW IS THREAT  
IN HOT, MOIST  
WEATHER

When muggy summer weather sets in, beware of mildew!

Mildew can damage clothing, shoes, books and even wood in hot, humid weather.

Molds causing mildew flourish wherever it is damp and warm in poorly aired and poorly lighted rooms -- in cellars and closets, on draperies and rugs in basement recreation rooms, on shower curtains, on damp clothes rolled up for ironing. As molds grow, they discolor fabrics and sometimes cause them to rot. They also cause wood to decay and discolor leather and paper. A musty odor is often the sign of mildew.

Prevention is worth a pound of cure when it comes to combating mildew.

Extension clothing specialists at the University of Minnesota give these suggestions on preventing mildew:

. Keep clothing and storage places clean. Clean garments before storing them. Keep closets, dresser drawers and basements as clean as possible. Soil on articles can supply enough food for mildew to start growing when moisture and temperature are right.

. Keep rooms and clothes aired and dry. Good ventilation is important to remove moisture caused by cooking, laundering and bathing. Ventilate the house when outside air is drier than inside air. Run an electric fan in places that can't be exposed to outdoor breezes.

Hang garments so air circulates around them. Store shoes and suit cases on shelves off the floor.

add 1 - mildew threat

Mechanical dehumidifiers will get rid of dampness in the air but should be used with doors and windows closed.

. Get rid of musty odors. They probably indicate mold growth. Anti-mildew sprays containing a chemical to stop growth of molds are effective in removing mustiness from closets.

. Never let clothing or linens lie around damp or wet. Dry soiled clothing and damp towels before putting them into the laundry hamper. Spread out wet shower curtains. Sprinkle for ironing only as many articles as you can iron in a day. And be sure to dry all clothing wet by rain or perspiration before hanging it in a closet.

-jbn-

Information Service  
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Immediate release

#### 4-H'ERS WILL PARTICIPATE IN DISTRICT FUN FESTS IN JULY

Over 10,000 Minnesota 4-H'ers are expected to take part in six district Share the Fun festivals during July.

The district events will be held at 1 p.m., July 9, Preston High School Auditorium; 8 p.m., July 10, Prior Lake High School Auditorium; 1:30 p.m., July 11, St. James High School Little Theatre; 1:30 p.m., July 16, Benson High School Auditorium; 7 p.m., July 17, Mahnomon Elementary School Auditorium; and 2 p.m., July 18, Aitkin High School Auditorium.

Acts selected from county shows will comprise the district events, according to William Milbrath, assistant state 4-H Club leader at the University of Minnesota. From these programs, 15 to 18 acts will be chosen for the state Share the Fun Festival held during the Minnesota State Fair. The acts will include instrumental, vocal, dramatic and novelty numbers as well as folk and square dancing, stunts and skits.

Share the Fun began in 1959 as an outgrowth of the 4-H Search for Talent contest co-sponsored then, as now, by the University of Minnesota Agricultural Extension Service and Cargill, Inc. District and state participants will be chosen on the basis of their performance, audience appeal and appearance and their ability to contribute to a well rounded entertainment program. No winners are chosen at the state event.

The program promotes fun and fellowship for participants, encourages creativeness, gives confidence and develops leadership as 4-H'ers share their talents with others, says Milbrath, in charge of district and state events.

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63-188-kmr

## FRUITS, VEGETABLES WILL HELP YOU WATCH WEIGHT

Fresh fruits and vegetables coming to market in abundance during summer can be a real friend to the weight watcher.

Fruits can substitute for pastries and other desserts with empty calories, extension nutritionists at the University of Minnesota point out. Foods with empty calories are those that contribute little in the way of vitamins, minerals or protein but do rate high in calories. Both fruits and vegetables, on the other hand, are low in calories but high in nutritional content.

Given below is a list of fruits and vegetables with their caloric content. Calories are for a half-cup portion, except where stated otherwise, served without added fat, sugar or sauce.

10 to 15 calories--cabbage, snap beans, greens, cauliflower, celery, mushrooms, green peppers, kraut.

20 to 25 calories--summer squash, asparagus, carrots, turnips, tomato juice, half a cantaloupe (5 inches in diameter).

30 to 40 calories--Brussels sprouts, onions, one tomato, berries, cherries, raw fresh pineapple, one peach, plum.

40 to 50 calories--grapes, one pear, half a white grapefruit.

55 to 60 calories--three apricots, fresh, unsweetened canned or frozen orange juice, half a pink grapefruit, one medium orange, ~~14x8~~ 14x8-inch wedge of watermelon.

70 calories--one apple, apple juice.

75 to 85 calories--one banana.

80 to 90 calories--one-fourth avocado.

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June 20, 1963

Immediate release

#### FORAGE MACHINE COURSE SET AT ALEXANDRIA JULY 30-31

A forage harvesting machinery workshop is scheduled July 30 and 31 at Alexandria high school.

The session will be conducted by the University of Minnesota Department of Agricultural Short Courses. It is sponsored by the University's Department of Agricultural Engineering and the Minnesota Implement Dealers Association.

Sessions are slated on machine operation, adjustment, maintenance and safety and methods of applying workshop information to vocational agricultural teaching.

The workshop is designed with the needs of vocational agriculture instructors in mind, but is open to anyone.

Enrollment in the workshop costs \$3. Apply to the Department of Agricultural Short Courses, Institute of Agriculture, St. Paul 1.

Noon meals both days will be provided by the Minnesota Implement Dealers Association.

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63-190-vln

Information Service  
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June 20, 1963

Immediate release

#### WEED CHEMICAL RESIDUES BEING STUDIED BY UM RESEARCH MEN

With at least one of the modern weed control chemicals, the soil residue problem may not be as great as was once feared, University of Minnesota research has shown.

Also, the studies are showing that the amount of residue carryover from one year to the next is linked to soil temperature, moisture, and other factors.

This research concerns atrazine, one of the newer chemicals used to control weeds in corn. It is applied either before the corn comes up or shortly after the young shoots emerge.

A problem is that the year after application, the soil is likely to contain residual atrazine. This residue may be harmful to crops other than corn that may be planted in the field that year.

A similar problem exists with a chemical called simazin, which has been used by many farmers in recent years. But 2,4-D, the most popular of the current herbicides, does not remain in the soil long after application and does not produce a carryover problem.

On one field, agronomist Richard Behrens applied 22 pounds of atrazine per acre between 1959 and late May 1962. Analysis of plants growing after the last application, however, indicated that fewer than 5 pounds of atrazine per acre were still available in the soil. By October, less than 2 pounds was available.

(more)

add 1 -- weed chemical residues

What had happened to the residue? Behrens and a soil chemist, Russell Adams, are studying residue disappearance. They say chemical residues in soil may disappear in one or more of several ways. One common way is through alteration by microorganisms. Another is direct chemical change.

Some chemical is removed by the plants and some is absorbed into soil colloids. Some may be lost by leaching, some goes off as vapor and some is lost through photo-chemical changes.

Research men are especially interested in chemical change through micro-biological activity. Behrens has data which suggest that how well these microorganisms break down chemical residues depends on soil temperature and soil moisture. That is, atrazine residue in the soil goes down sharply as soil temperature goes up. This might be one reason why fields tend to have less residue in late summer than in early spring.

Then there is the moisture aspect. If the soil is low in moisture, the micro-biological activity may be slower. With good rainfall, on the other hand, activity may be higher and residue may be less of a problem. This, then, might help explain why weed chemical carryover is sometimes more of a problem in the drier soils of west central Minnesota than in the soils of higher moisture, such as in the southeast.

There is also evidence that microorganisms adapt themselves to atrazine and other chemical residues. Loss of this residue seems to be faster a few years after the chemical was first applied than occurs shortly after the first treatment.

While these studies have dealt mainly with atrazine, the findings should have wider implications, Behrens says. They help develop a better understanding of the general residue problem, not only with atrazine, but with other chemicals as well.

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63-191-pjt

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Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 25, 1963

To all counties  
Immediate release

HERBICIDES INCREASE  
FARM INCOME

The weed chemical 2,4-D, sort of an old reliable among farmers, is boosting Minnesota farm income some \$6 million per year, University of Minnesota agronomists estimate.

And they add that this economic value makes it ever more important to understand some of the dangers with these chemicals and to find ways to avoid harmful effects.

In the recent issue of Farm and Home Science, an Agricultural Experiment Station publication, agronomists Richard Behrens and Harley Otto point out that Minnesota farmers annually spray nearly 3 million acres each of small grain and corn, about 300,000 acres of flax and about 200,000 acres of pasture.

This is for weed control only. And by far the most popular chemical, especially for corn, is 2,4-D which is also one of the least toxic to animals.

For farmers, the benefits of anti-weed chemicals are clear. At six experimental locations around Minnesota, use of chemicals plus cultivation recently increased corn yields by 10 bushels per acre. Soybean yields averaged 2.6 bushels per acre higher.

The potential hazards, however, are recognized. Behrens and Otto list them as :

- \* Danger to those handling the chemicals;
- \* Possible damage to the crop sprayed or other susceptible plants;
- \* Accumulation of unsafe residues in the soil or crop.

University researchers are making extensive investigations to assure safety to the crop sprayed before suggesting the use of an herbicide. Injury to crops may occur in some cases--but benefits from weed control more than offset injury to the crop.

add 1 - herbicides

The U. S. Department of Agriculture requires residue and toxicity data on herbicides as well as other chemicals before label approval is granted. In fact, most herbicides were granted label approval on a no-residue basis.

At least five new weed chemicals of value to Minnesota farmers have been cleared in recent years. Atrazine was cleared several years ago for use on corn, but only after extensive testing. Amiben was approved for soybeans two years ago.

In 1962, 2,4-D butyric was approved for two kinds of use--for controlling cockleburs in soybeans and for broadleaved plants in alfalfa. In 1963, dalapon and linuron were cleared for use on corn.

# # # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 25, 1963

To all counties  
ATT: Home Agents  
Immediate release

TURKEY TOPS LIST  
OF GOOD BUYS  
DURING JULY

Consumers can count on a wide assortment of foods in abundance for indoor and outdoor eating throughout July.

Turkey, a good buy all month, is an excellent choice for barbecuing outdoors for a big family gathering, according to Robert Berg, extension poultry specialist at the University of Minnesota. The turkey can be roasted whole on a spit or it can be cut up and the individual pieces barbecued.

Summer vegetables such as lettuce, tomatoes, corn, beans and beets will be filling produce bins with more variety than shoppers have seen in months.

Among fruits, peaches and watermelons will be plentiful. In selecting peaches, remember that ripeness is a prime measure of quality, says Mary Ryan, extension consumer marketing specialist at the University of Minnesota. Best indicator of ripeness is a whitish or yellowish ground color of the skin, not the blush. A green background color suggests that the peaches were immature when picked and will not ripen well.

Watermelon should be firm to the touch. It may be solid green to gray, depending upon variety. The underside may be yellowish, but if it is white or pale green, the melon is probably immature.

Milk and dairy products will continue to be abundant. Look for specials on half-gallons of ice cream at your grocery store.

Food shoppers should find peanut butter, vegetable fats and oils wearing attractive price tags during July -- three pound cans of shortening will be featured as specials in many stores.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 25, 1963

To all counties

Immediate release

IN BRIEF.....

Minnesota has scabies-free status: The U. S. Department of Agriculture, as of June 20, certified Minnesota as a "Sheep Scabies Free Area." This is the end result of a program involving county agents, vocational agriculture teachers and representatives from state and federal agencies. Some 18,000 flocks were examined and a total of 15 flocks were determined to be scabies-infected. The result should be more freedom of movement of sheep across state lines. North Dakota, South Dakota, and Wisconsin also have scabies-free status.

\* \* \* \*

Residue carryover of atrazine, one of the newer weed chemicals, may not be as great as was once feared. University of Minnesota agronomists applied 22 pounds of atrazine per acre between 1959 and late May, 1962. Analysis of plants growing after the last application, however, indicated that fewer than 5 pounds of atrazine per acre were still available in the soil. By October, less than 2 pounds was available. Apparently, much of the other chemical applied had been removed, through leaching, plant removal, microbial activity and other ways.

\* \* \* \*

Fertilizer use in Minnesota climbed to over half a million tons in 1962. That's compared to about a quarter million tons in 1953 and a mere 7,000 in 1933. Kind of fertilizer has changed markedly, too, say soils men at the University of Minnesota. In 1933 the nitrogen-phosphorus-potassium ration was 2-to-10-to-8. In 1962 it was 7-to-12-to-7, indicating the tremendous increase in use of nitrogen.

\* \* \* \*

Headed bluegrass makes poor pasture. A University of Minnesota acting extension agronomist, W. W. Brookins, has this suggestion. When you start to see heads, disk or harrow the area to spread the droppings. Then apply 30 to 50 pounds of nitrogen per acre to pep up the regrowth. Start grazing when the regrowth is 8 to 12 inches high.

\* \* \* \*

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 25, 1963

To all counties  
Immediate release

RECORDS TELL  
GRIM STORY  
OF FARM MISHAPS

It happened on Minnesota farms a year ago this month.

A farmer near Wheaton was mowing hay with his tractor. The cutter bar developed trouble, so he stopped the tractor and shut off the engine with the mower blade lifted off the ground. Just as he walked under the cutter bar to work on it, the hydraulic lift system on the tractor failed, dropping the mower and pinning the farmer on the ground.

This farmer's luck didn't run out entirely. His quick-thinking, six-year-old daughter raced to his house to get help. The farmer was freed, given first aid, and sent to a hospital where he received treatment which saved his life and limbs.

Other farmers were less fortunate. A worker near Roseau lost a leg in a baler accident. A farmer in Polk County nearly lost his arm in a similar mishap. An eleven-year-old boy in Sherburne required major surgery following injury in a tractor accident. And a farmer near Gaylord narrowly escaped with his life when his tractor caught fire while he was pouring gasoline into the tank.

These accidents have at least three things in common: First, they all involved farm people. Second, they involved machinery. Third, they all occurred during this busy time of summer.

Glenn Prickett, extension safety specialist at the University of Minnesota, reminds Minnesotans of these hazards as we approach Farm Safety Week, July 21 - 27. The theme of this week is "Inspection + Correction = Protection." Many accidents might have been avoided if the individuals had been more fully aware of the condition of their equipment and the circumstances under which they were working.

add 1 - farm mishaps

Tractors continue to be the single, most common cause of farm work accidents in Minnesota. In fact, the increased use of tractors and other power equipment helps explain the continued high level of farm work fatalities in Minnesota, even though farm population is declining steadily.

While there are fewer people on farms, more and more of the farm operations are mechanized. Modern power equipment is safer than ever, but only if properly used.

With the safety devices on power take-off equipment, fewer accidents seem to occur involving power shafts. Many of the machinery accidents, if not most, can be traced to carelessness, pure and simple, Prickett states. Many tractor accidents involve tipping, as along ditches and banks. Several result from tractors tipping over backward -- an unlikely mishap if a tractor is used only with intended equipment.

Some farmers, for example, seem to throw all caution to the winds when a tractor gets stuck. Prickett says you're asking for sure death if you tie a post to a tractor wheel to try to get it out of the mud. One of two things might happen: The tractor might rear up and tip over backward, or the post might spin around, still attached to the wheel, and strike the operator himself. Both accidents happen all too frequently.

# # # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 25, 1963

To all counties  
Immediate release

INSECTS MAKE  
LIGHT ATTACKS  
SO FAR IN '63

Except for a heavy buildup of face flies that bother cattle, insects are not causing major problems so far this year for Minnesota agriculture.

Small grains and forages have escaped heavy damage from aphids, army worms and leafhoppers, according to John Lofgren, extension entomologist at the University of Minnesota. Whether grasshoppers, corn rootworms and borers will cause extensive damage remains to be seen.

Based on evidence to date, Lofgren makes these observations about the 1963 insect situation.

SMALL GRAINS: While there was some early concern over leafhoppers, these insects caused relatively little damage. The percent of hoppers carrying virus diseases turned out to be quite low. Green bugs showed up in a few localized spots in oats fields, but did not spread much. Some evidence of more than usual injury from wheat stem maggots was seen; the extent of damage normally does not exceed about 1 percent. Some farmers have reported localized infestations of army worms, especially in lush, growing or lodged spots of small grains. Where serious, army worms can be controlled through spraying with toxaphene or dieldrin.

FORAGES: The biggest threat is from grasshoppers in sandy soil areas of central Minnesota. Grasshoppers do little damage on first crop hay. There isn't much hatch, usually, until about the end of June, but the extent depends on temperature. Extended periods of hot, dry weather favor grasshopper hatches, which could be serious on second crop alfalfa. Also, potato leafhoppers could be a problem on second growth legumes, especially where the first crop was cut early.

add 1 - insects

CORN: Cutworms caused some damage in low, poorly-drained areas early this spring, but were not widespread. Borer attacks will probably be spotty, with the heaviest infestations on the more advanced corn in west central and southwest counties. Much corn in Minnesota is behind borer development; borers are not likely to become established in extremely small corn. The rule for borers is to treat any fields where 75 percent or more of the plants show leaf feeding (shot holes in the whorl leaves). Chemicals to use are DDT, sevin or endrin. It's too early to predict effects of corn rootworm, which is most likely to affect continuous corn fields, causing lodging and goosenecking.

LIVESTOCK--With warmer weather ahead, flies will become more numerous, especially the bothersome face flies that first came into Minnesota only a few years ago. They are not biting flies, but they are a serious nuisance to cattle and horses. They can be controlled on dairy cattle by daily applications directly on the animal's face, of DDVP baited spray. For beef cattle the use of backrubbers will help control face flies and also do a good job of knocking out horn flies.

# # # #

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 25, 1963

To all counties

ATT: 4-H AGENTS  
HOME AGENTS  
AGRICULTURAL AGENTS

Enclosed are five 4-H exhibit and demonstration stories for use before your county fair. However, with some adaptations, they may be used at other times. Some of this material may be useful in newsletters.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 25, 1963

To all counties

4-H NEWS

For use before county fair

CONTINUITY IS  
KEY TO HOME  
IMPROVEMENT

Continuity is a key idea in the 4-H home improvement-family living project.

If you select the same area for your 4-H record, exhibit and demonstration, you will increase your skill and knowledge in that area. You may choose from modern laundry, baby sitting, money management and home accessories.

The item you choose to exhibit should be suited to your age, the phase of the project you select and the amount of skill required to make it, says Mrs. Claudia Woker, assistant state 4-H Club leader at the University of Minnesota. Your item should be something useful to you. Perhaps you will use it in your home, in your room or for baby sitting.

Construction and general appearance are important in judging. To receive top ratings, exhibits must be tops in workmanship. If you use machine stitching, it must be straight, even and have exactly matching thread. If your article must be laundered and is hand stitched, the stitches need to be close enough to withstand the kind of wear and care it will be given. The fabric dictates the kind of stitching most suitable.

Perhaps you decided to construct a laundry bag. Your stitching should be even and straight and match the material. If you trim it with bias tape, take time to do a good job. Bias is difficult to apply, especially if you are not careful. Make good joinings of the tape. Select appropriate designs and materials if you plan to decorate the bag. Embroidery thread, for example, should be comparable in weight with the fabric. When you are constructing the bag and planning the design, remember to keep it clean--an important part of its general appearance.

Simplicity is important in this project. An overdone design detracts from your work because the beauty is lost in all the trimmings. A structural design lends beauty through its basic construction and organization. You may add a decorative touch, but don't overdo. If you add a design, it should follow the basic shape of the item. For example, a design on a circular pillow will follow the curved lines of the pillow. Keep in mind harmony of color, texture, shape and line in your object. They should all blend together in good proportion, balance and rhythm.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 25, 1963

To all counties

4-H NEWS

For use before county fair

TWO SENSES ARE  
INVOLVED IN  
DEMONSTRATING

You remember 20 percent of what you hear, 30 percent of what you see and 70 percent of what you see and hear. Hence, two important ingredients of a demonstration are knowledge of your subject and the visuals to illustrate it, according to Marian Larson, assistant state 4-H Club leader at the University of Minnesota.

Since a demonstration is a learning situation, choose a topic which is a challenge to you, Miss Larson urges 4-H members and other young people planning demonstrate. If you select a topic you're interested in, you will probably be more enthusiastic and confident in your demonstration. These two facts will make the "hearing" part of your demonstration more interesting to your audience.

Find out all you can about your topic. Knowledge will give you ease in talking during the actual demonstration and in answering questions. After studying the 4-H bulletins on your topic, consult school and public libraries, books, magazines, bulletins and local authorities. Then check with your county extension agent.

After doing your research, plan your ideas in a logical way. Make a brief outline to help you organize your thoughts, and for use as a quick reference in a talk. Relate the topic to yourself and your experience in the introduction. Speak in terms of your own experience and what you have learned. You are learning a teaching technique in a teaching situation so be certain your information is accurate.

-more-

add 1 - senses involved

Use visuals if they add to your demonstration. Visuals can help you tell the story and explain many points. Whenever possible, use actual objects. They're familiar to the audience, can affect all five senses and bring action into the presentation. If it's not possible or practical to have the real object, use a model or pictures showing a step-by-step process. Models are good aids in livestock, health and safety demonstrations while pictures, or actual photographs, are an excellent way to show improvements you made in the home yard or a room.

If you have some artistic talents, you may wish to visualize with a chalkboard, flip chart, flannelboard or magnet board. Movable pie charts and bar charts show comparisons of before and after figures.

The most important visual in a demonstration is YOU! A well groomed demonstrator attracts attention and interests the audience. The clothes you wear should be appropriate to the job. Often your 4-H uniform is a good choice. A cheerful smile and plenty of practice will help you to be poised and self-confident and thus give the audience confidence in you, the demonstrator.

-kmr-

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 25, 1963

To all counties

4-H NEWS

For use before county fair

CORRECT POSTURE  
HELPS YOU FEEL  
AND LOOK BETTER

Fashion suggests a tall, slender figure with a small waist, narrow hips and a high, firm bustline. Is this what you see when you look in the mirror?

Naturally, not everyone can have this figure, but correct posture can help you achieve this effect and make you feel better at the same time, says Mrs. Claudia Woker, assistant state 4-H Club leader at the University of Minnesota. If you're planning to model in the 4-H dress revue, keep these suggestions in mind and you'll feel and look better all the time. These suggestions apply to non-modelers, to girls and mature women alike.

Hold your head high and let your shoulders float free and easy on each side. This gives you a pretty neck and shoulders particularly evident in the popular collarless sheaths.

To make your waistline smaller, tighten your stomach muscles and lift your ribs. That "spare tire" around the middle may not necessarily be excess weight, but poor posture.

Learn to tilt the pelvic bone upward in front for the narrow hip look. When the body parts are held in correct alignment the figure appears smaller. There's an imaginary vertical line from the center of the head, through the center of the chest, to the center of the hips, ending at the outside bone of ankle. Pretend a hook is attached to this imaginary line from which you are perpetually hanging.

Poise and assurance come from having control of your body through correct posture and knowledge of basic modeling techniques. Here are some dress revue tips from Mrs. Woker.

add 1 - correct posture

Watch for your cue to come on stage. Then walk on briskly, smile and keep moving in a graceful, easy going manner.

So the audience can get a better view of your outfit, make one or two turns as you walk across the stage. Begin the pivot on your right foot, slightly ahead of the left. Turn to the left, pivoting on the ball of the right foot. Follow through with a backward glance at the audience and take a few steps forward and repeat on the left foot.

Going up and down stairs is no problem if you let the movement flow. To go up stairs, slant your whole body slightly forward and place the entire foot on the next step. In going down stairs, place the ball of your foot on the tread first and the heel follows. Let your leg muscles do the work.

To point out a pocket, collar or any fashion detail, point to them with one hand, keeping the palm toward you. Listen to the narrator as she describes your costume and point out some of the details as she mentions them.

It takes practice to be a good model. And when the dress revue is over that's no time to let down. Correct posture makes your clothes look better because you wear them more gracefully. And you feel better, too.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 25, 1963

To all counties

L-H NEWS

For use before county fair

LIMIT TOPIC  
IN A SAFETY  
DEMONSTRATION

"For an effective safety demonstration limit yourself to one main topic."

If you're considering giving a safety demonstration at your county fair this summer, keep in mind some advice from Glenn Prickett, extension safety specialist at the University of Minnesota.

Prickett suggests several areas for safety demonstrations.

. Fall prevention in the home. A demonstration on this topic should include constructing hand rails on the porch, terrace or stairway; using skid-retardant materials on scatter rugs; painting the top and bottom step with aluminum or white paint; using a skid-retardant product which is adhesive on one side and corrosive on the other for steps in the home.

. Fall prevention on the farm. Safe, sturdy ladders which are long enough for the particular job and adhesive-corrosive tape for the mounting steps on machinery are two important points which should be brought out in a fall prevention demonstration.

. Home safety. An often overlooked topic in home safety is the safe use, care and storage of kitchen cutlery.

. Safe use and storage of liquid fuels. When operating tractors and other small gasoline engines, the demonstrator should remind his audience to shut off the motor and cool it, shut off the hose nozzle and use a safety gas can. Store the safe storage tank at least 50 feet from the building.

. Safe operation of farm machinery. Prickett reminds demonstrators to emphasize keeping shields in place. Farmers should shut off power when servicing or adjusting their machines. Reflectorizing machinery to be used on the highway after dark and placing warning flags for daytime use are good safety practices.

For all safety demonstrations, Prickett has this helpful advice. Know your subject matter. This will give you confidence to give a good demonstration. Be able to describe or show clearly the product you are making or the topic you're presenting. You can choose from a wide variety of types of visual aids to illustrate your topic. But remember that charts and other visuals should be plainly visible from 15 to 25 feet.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
June 25, 1963

To all counties

4-H NEWS

For use before county fair

CONSIDERATIONS  
VITAL IN 4-H  
SHOP PROJECT

If you are planning to exhibit in the 4-H shop project, consider the general appearance, mechanical quality and finish of your article, suggests Earl Bergerud, assistant state 4-H Club leader at the University of Minnesota.

The general appearance of an article has much to do with how an observer forms a first impression. Consider the proportion of the object in relation to its function and the general workmanship.

Choosing material suited to the function of the article you make and its design is an important part of mechanical quality. For example, wood that doesn't mar too easily is suitable for a table top. The wood should not split and drawers and doors should operate smoothly.

Don't distort screw heads, Bergerud advises. Before installing a screw, drill a hole for it. Nails spread the wood fiber and get their holding power by friction. Screws, however, aren't intended to spread the wood fiber. They get their holding power from the threads cutting into the walls of a pre-drilled hole. Hinges that fit and fastenings that work smoothly are vital to the mechanical quality.

Select a finish that is suitable for your article and provides a pleasing color combination. A common fault of refinished or new furniture is that the surface wasn't smooth when the finish was applied and succeeding coats of finish were applied without a rubdown between coats. Sometimes pieces are allowed to dry in a dusty place. Then the final coat is left with a glaring shine rather than a smooth satiny sheen.

Hammer marks, rough edges and other mechanical defects have no place in your article. Prepare the surface so it's suitably sanded and screws are countersunk, except round head screws.

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
June 25, 1963

Immediate release

## FARM SAFETY WEEK TO BE OBSERVED, JULY 21-27, 1963

Minnesota's variable record in farm and farm home accidents will come under scrutiny during Farm Safety Week, July 21-27, according to Glenn Prickett, extension safety specialist at the University of Minnesota.

After a steady decline during the 1950's, the number of farm work fatalities spurted upward in 1960 and '61. The trend so far in 1963 suggests that the toll this year will be above the low level of 37 in 1957.

Total number of farm work fatalities since the low point was 48 in 1958, 65 in 1960, 63 in 1961, and 48 in 1962. Ten such fatalities were recorded between January and April of 1963, which is higher for that period than for any previous year since 1959.

Farm home fatalities, on the other hand, have tended to show a downward trend in the past five years. Such fatalities totaled 111 in 1958, 95 in 1960, and 90 in 1962.

Prickett suggests that farm home fatalities seem to follow the downward trend in rural population. Farm work accidents, however, are probably related to several other factors--such as the increased use of machinery and seasonal weather conditions which result in more haste by farmers.

Tractors and other power machinery continue to be the most important single cause of farm work fatalities. As an example, Prickett points to some accidental death reports from April of this year. One farm worker in Traverse and one in Mahnomen County were killed when tractors tipped backwards. A Marshall County woman was run over and killed by a tractor. Similar accidents killed men in Fillmore and Blue Earth Counties. And a Clearwater County farmer was killed when his tractor tipped over while he was trying to free it from being stuck in the mud.

(more)

add 1 -- farm safety week

Other causes of death include falls, fires, drowning, plane accidents, farm motor vehicles, and falling objects. A Fillmore County farmer was killed in an accident with work horses.

Farm children are subject to a variety of dangers. Of 46 farm deaths involving persons 14 years and under in 1962, 12 involved tractors and other machinery. Nine were drowning accidents, eight resulted from suffocation, four involved firearms, and the rest were due to house fires and other causes.

Prickett says one key to reduction of farm and home accidents is awareness of the problems, the potential dangers, and ways to lessen these dangers. These points are stressed by theme of National Farm Safety Week, which is "Inspection + Correction = Protection."

National Farm Safety Week is sponsored jointly by the National Safety Council, the U. S. Department of Agriculture, and other educational agencies such as the University of Minnesota. It is endorsed by all leading farm organizations.

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63-194-pjt

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
June 25, 1963

\*\*\*\*\*  
\*For release at 6:00 p.m. \*  
\*Thursday, June 27 \*  
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#### AWARDS GIVEN TO 4-H FRIENDS, ALUMNI

A dean, a business man and a superintendent received Friends of 4-H awards this evening (Thurs., June 27) at a 4-H banquet given by the Minneapolis Chamber of Commerce at the Pick Nicollet Hotel, Minneapolis.

The banquet was attended by 750 4-H junior leaders meeting for their state conference on the University of Minnesota's St. Paul Campus this week.

Leonard Harkness, state 4-H Club leader at the University, presented plaques for "meritorious service" to 4-H clubs to Harold Macy, retiring dean of the University's Institute of Agriculture; Nathan Haw, manager of Rural Sales, Northern States Power Company; and William Matalamaki, superintendent of the North Central School and Experiment Station, Grand Rapids. The three men were also made honorary members of the Minnesota 4-H Key Club.

Other recipients of plaques were four state winners in the national 4-H alumni recognition program: Mrs. Albert Sarver, Ada; Mrs. Charles Bishop, Wells; Richard Fitzsimmons, Argyle; and Clifton Paulson, Aitkin. They were selected for their leadership, interest in youth and participation in civic, public, church and school activities. Their awards were given by Olin Mathieson Chemical Corp., Plant Food Division, Little Rock, Arkansas.

Macy has addressed many 4-H groups, interesting them in the value of continuing education. He is recognized for his enthusiasm and personal interest in the work of 4-H and individual young people. He has helped win the interest and support of members of the business and professional community for the educational work of 4-H.

Haw was cited for his support of the 4-H program as an adviser to the State 4-H Office in developing 4-H electric literature, as a member of the National 4-H Electric Development Committee, as a member of the initial planning committee of the state 4-H Electric Conference, as a key representative from the Minneapolis Chamber of Commerce in planning the annual 4-H banquet, as a supporter of the State Junior Livestock Show.

Matalamaki was praised for his interest and support in the whole 4-H program, particularly his part in the district 4-H Club weeks at the North Central School and Experiment Station. As a speaker at county 4-H events in the area, he has actively promoted interest in continuing education.

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63-193-kmr

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
June 25, 1963

Immediate release

## BARBECUE TURKEY THIS SUMMER

A turkey barbecue may be just the answer to the kind of meal to prepare for visiting friends or family on the Fourth of July or anytime this summer.

Turkey is one of the July plentiful foods and is an excellent buy, according to Robert Berg, extension poultry specialist at the University of Minnesota. Turkey is high in protein and low in calories and cholesterol.

For barbecuing he suggests a fryer-roaster under 8 pounds in weight. However, it's possible to barbecue a larger turkey if you have the time.

Here are Berg's suggestions on barbecuing a whole turkey:

Place about 2 inches of briquets or a double layer in the back of your barbecue. Then pile the briquets neatly and light them with an electric starter or lighter fluid. After about 20 minutes, when the briquets are gray, spread them out slightly, keeping the fire concentrated in the back of the barbecue. After each hour, add about half again as much charcoal.

The turkey must be completely thawed before being placed on the spit. If you plan to inject the bird with barbecue sauce, allow another 12 hours for the sauce to distribute throughout the muscles. If the bird is injected, basting is not necessary.

Tie the wings against the body. Pin the neck skin against the back with a skewer. Tuck the legs back under the bar of skin. Now place the spit as close to the breast as possible and make sure the bird is well balanced on the spit.

Allow about 20-30 minutes to a pound to barbecue the turkey. A six-pound fryer-roaster will take about 2 1/2 hours. A piece of aluminum foil placed over the open side will help to conserve heat and adds a mild smoke flavor. Turn the barbecue away from the wind.

If you prefer to cut up the bird, fairly small individual pieces will barbecue in about an hour and a half. Be sure the fire is not too hot or the turkey will dry out. Turn and baste the pieces every 5 minutes. For juicy turkey, the pieces may be put into a covered pan and simmered in some of the barbecue sauce for 10 to 15 minutes before serving.

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63-192-jbn

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
June 27, 1963

Immediate release

#### SMALL ENGINE WORKSHOP SET AT WILMAR AUG. 6-7

A two-day workshop on operation, maintenance and repair of small engines is to be held at the Willmar Community College starting at 8 p.m. August 6.

Sponsored by the Willmar Community College and the University of Minnesota Department of Agricultural Engineering, the course will feature both class and practical type work. There will be special sessions on trouble shooting to find out why engines work poorly or fail to work. There also will be safety sessions.

The workshop cost is \$3. Applications should be made to the Department of Agricultural Short Courses, Institute of Agriculture, University of Minnesota.

The short course is offered by the Department of Agricultural Short Courses at the Institute of Agriculture. It is designed with the particular needs of the vocational agriculture teachers in mind, but is open to anyone.

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63-195-vln

Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 -- tel. 647-3205  
June 27, 1963

Immediate release

### HAM, CHICKEN, TURKEY: TAKE YOUR CHOICE

Ham, hamburger, pork roasts, frying chicken, chuck steaks, turkey--take your pick among these good meat buys in planning your week-end or Fourth-of-July meals.

Ham and hamburger head the list of good values in meat, and present prices should continue until the Fourth of July, according to Mary Ryan, extension consumer marketing specialist at the University of Minnesota. Pork roasts, fryers and chuck steaks are being featured at some supermarkets. Turkey is in plentiful supply and will be a good buy all month.

Fresh vegetables and fruits in good supply and reasonably priced this week include cantaloupe and watermelon, radishes, onions, green peppers and celery. Locally grown strawberries, cabbage and spinach, New Jersey blueberries and seedless grapes are still moderately high priced but supplies of these products are increasing.

Grocery items featured at below average prices this week include canned tomato soup, quart jars of salad dressing, pickles and coffee. Frozen orange concentrate is selling in some stores for as low as 22-25 cents per can. Beet sugar is available at some markets in 10-pound sacks for as low as \$1.39 - \$1.49.

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6 3-196-jbn

Information Service  
Institute of Agriculture  
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St. Paul 1 -- tel. 647-3205  
June 27, 1963

Immediate release

## WASECA STATION SOILS FIELD DAY TO BE JULY 10

Crops and livestock research, safety and civil defense and proper use of pesticides will be featured topics at the annual Crops and Soils Field Day Wednesday, July 10, at the University of Minnesota's Southern School and Experiment Station, Waseca.

Special field tours are being arranged for farmers, homemakers, and persons interested in lawn and garden care, according to Deane Turner, superintendent of the School.

Wagon tours through the station field plots will begin at 8 a.m., and will cover several research projects. Among these projects are:

\* Chemical weed control, including treatment for quackgrass in oats and relationship between chemical weed control, row spacing and populations of corn and soybeans. Calibration and use of weed spraying equipment will be demonstrated.

\* Forage crops, including plots of Berseem clover, seeded alone and with companion crops, in comparison with alfalfa. Research with reed canary grass, both for seed and forage, will be reported.

\* Fertility experiments, featuring results of seven years of tests with nitrogen, phosphorus and potassium at different rates on continuous corn. This will be compared to corn raised in a rotation system. Different kinds of nitrogen sources and applications will be demonstrated. A new weather station will be shown.

\* Row spacing in corn and soybeans, comparing medium and late maturity soybeans at 24 and 40-inch row widths, and corn row spacings varying from 10 to 40 inches.

\* Livestock research, such as feeding of Holstein steers, management of sheep and lambs in dry lot, and crossbred performance of the Minnesota inbred lines of hogs.

Also featured at the event will be a plant pest control clinic. Visitors may bring samples of insects, weeds, and crop diseases for identification and recommended treatment.

Demonstrations will include one on fire safety and another on protection of livestock against nuclear fallout, and use of insecticides and herbicides.

The women's tour will include stops at the fruit and vegetable garden of the station, where use of insecticides, garden management and landscaping will be discussed.

A special presentation on "Agriculture in Brazil" will be given at 1 p.m. by Russell Jongeward, Soil Conservation Service official from Little Falls.

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Immediate release

#### STATE 4-H FEDERATION OFFICERS ELECTED

A 19-year-old young man will head an organization of 53,000 4-H Club members in Minnesota this year.

He is Thomas Burke, Blooming Prairie, who was elected president of the State 4-H Federation during the State 4-H Junior Leadership Conference on the University of Minnesota's St. Paul Campus this week (June 25-28).

Elected to other offices by voting delegates representing every Minnesota county were Jean Hartwick, 17, Darwin, vice president; Paul Johnson, 18, Maple Plain, secretary; and Patricia Berglund, 17, Scandia, treasurer.

All officers are long-time 4-H members.

Burke is an 11-year 4-H'er and has been in junior leadership six years. His main projects are hogs and beef and he has won many honors in these projects. In 1960, Burke was the grand champion showman at the State Fair and exhibited the grand champion heifer. At the Junior Livestock Show in 1961, he was reserve champion-- Angus steer, and in 1962 he received the livestock achievement award and a \$100 bond. At the State Fair in 1962 he was the high individual general livestock participant. A 1961 graduate of Blooming Prairie High School, Burke served as vice president of the Minnesota Future Farmers of America. He was also president of the Junior Angus Association. Currently, the new 4-H president is farming with his father and twin brother.

Miss Hartwick has served as treasurer, recreation leader, and president of the Ellsworth Lakers 4-H Club in Meeker County and is now president of the county federation. Other achievements include president and vice president of her local church group and president of the area youth conference. As a senior at Litchfield High School, she will be president of the local Future Homemakers of America chapter. An eight-year member of 4-H, Miss Hartwick has been in junior leadership three years.

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add 1 -- state 4-H officers

Johnson, the new 4-H secretary, has had training for his job. In his junior year at Orono High School, he took shorthand--the only boy in the class of 20. In nine years of 4-H he has been active in the home yard improvement, garden, health, dairy and soil and water conservation projects. Three weeks ago he attended the State 4-H Conservation Camp and was elected to the continuation committee for next year. He is vice president of the Armstrong 4-H Club and president of the county federation.

Miss Berglund graduated from Lindstrom High School this spring and plans to go into engineering at the University of Minnesota this fall. She is treasurer of the Panola Rockets 4-H Club and president of the county leaders' council. In her 10 years in 4-H and four years as a junior leader, she has been active in the sheep, health, forestry, safety and clothing projects. Her family raises sheep and she "patronizes the sheep project by sewing." Last year she was selected to the Dress Revue Court of Honor at the State Fair and was Minnesota's representative to the National Sew-It-Yourself with Wool Contest in January in Las Vegas.

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