

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota

To all counties

For use week of
July 8 or later

July 1, 1957

FARM FILLERS

To maintain top milk production this month, it may be necessary to feed hay or silage liberally in hot weather and when pastures taper off, advise extension dairymen at the University of Minnesota. Even on good pasture, some grain should be fed to good producers throughout the summer.

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In tests with alfalfa silage in plastic bags during the past year, total dry matter losses averaged only 5 percent, reports Rodney Briggs, University of Minnesota agronomist. Also, there was no surface spoilage and none of the silage from the plastic bags needed to be discarded.

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Of 189 Farmers Home Administration borrowers studied, average cash farm income was \$5,936, according to Reynold P. Dahl and Peter Helmberger, University of Minnesota agricultural economists. Cash farm operating expenses averaged \$3,806, leaving a net cash farm income of \$2,130.

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Despite increasing efficiency, American farmers are still getting their share of crop disasters and serious financial problems. The U. S. Department of Agriculture says that from 1953 through 1956, the Federal Crop Insurance Corporation paid a total of more than \$112 million in crop insurance indemnities.

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Milk production in May, for the nation as a whole, reached a record high of some 13 billion pounds. That's 2 percent above May, 1956, and 6 percent above the average for the month.

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Generally, 13 or 14 hours of light each day is most favorable for maximum egg production.

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July 1 1957

HELPS FOR HOME AGENTS

(These shorts are intended as fillers for your radio programs or your newspaper columns. Adapt them to fit your needs.)

In this issue:

Family Fun in Summer
Nutrition Before Birth
Herbs and Spices Pep Up Food
Currant Quickie

Perspiration Stains on Dark Cottons
Wash Dark Cottons Alone
Mildew on Leather
Blanket Washing Tips
Soak Heavily Soiled Clothes

FAMILY LIFE

Family Fun in Summer

Summer offers many possibilities for a variety of activities the family can plan together. Charles Martin, extension family life education specialist at the University of Minnesota, says that families that have fun together build a wealth of common experiences and memories that will go far in strengthening relationships and unity.

Money is not the answer to the fun a family can have during the summer. Recently more than 600 boys and girls between the ages of 6 and 16 were asked, "What do you enjoy doing with your parents?" Results of the study showed:

1. It is not what parents do for children, but what they do with them that counts.

2. Careful planning of activities by the whole family is important, so that all are interested in the type of recreation that is planned. That is the best assurance that everyone will be satisfied. Remember, too, that the very act of planning is fun in itself.

-jbn-

FOOD AND NUTRITIONNutrition Before Birth

A child's health depends a good deal upon the state of nutrition at birth, says Annette Gormican, assistant professor of home economics at the University of Minnesota. It's often very difficult, if not impossible, for the newborn infant to consume enough food to supply his present needs and to make up for prenatal deficiencies. That's why it's important for expectant mothers to plan their diets carefully.

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Herbs and Spices Pep Up Food

Use herbs and spices to pep up your vegetables and brighten the eating atmosphere of your table. Here are some tips from Verna Mikesh, extension nutritionist at the University of Minnesota:

- Add a pinch of celery or caraway seeds to fresh cabbage or kraut.
- Cook two or three whole cloves with your beets or carrots. Remove the cloves after cooking is finished.
- Add a few grains of nutmeg to the melted butter poured over asparagus.
- Add bay leaf to the cooking water of parsnips or potatoes. Remove after cooking.
- Crush a clove of garlic. Let it stand in warm butter about $\frac{1}{2}$ hour. Pick out the garlic and pour the butter over squash.

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Currant Quickie

When the currants ripen in your garden, you'll want to preserve some of their tangy flavor for good eating next winter. Here's a quick method of making frozen currant preserves.

Wash and stem the currants and weigh them. Put them on a big platter and add an equal weight of sugar. Then crush them with a potato masher till every currant is broken. Stir frequently till the sugar is dissolved. Package in small rigid waxed containers, half-pint size if available, and freeze immediately.

To serve, cut away the pasteboard from the stiffly frozen pack, turn the currants into a dish and serve at once without thawing. The frost will be out by the time the preserves are on the plates. This currant "quickie" is delicious and fresh-tasting, and it's easier to make than jelly.

CLOTHINGPerspiration Stains from Dark Cottons

Cool dark cottons are popular for summer wear. But many warm weather dress styles are not cut to be worn with dress shields; so perspiration stains and discoloration of dark clothing sometimes results. Here are some suggestions from U. S. Department of Agriculture textile chemists to help you deal with these stains on washable cottons.

The fresher the stain, the better your chances for removing it. Pressing a dress that is even slightly stained may set the stain and cause more discoloration. First try washing the stain thoroughly in warm water, rubbing soap or synthetic detergent well into it. If the fabric has discolored, try sponging a fresh stain with a little vinegar and water solution; for an older stain try a little ammonia and water. This may help restore the color. Rinse thoroughly.

Read carefully and save any tags on ready-to-wear and yard goods. Some dark cottons carry a label saying that the dye is fast to perspiration. Other labels give facts about both the fabric and its finish that will be helpful when you need to remove a stain at home.

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Wash Dark Cottons Alone

Wash dark-colored cotton dresses alone or with other dark garments if you don't want them to pick up lint. Then iron them on the wrong side on a lint-free ironing board cover.

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Mildew on Leather

Any traces of mildew that appear on shoes, handbags, gloves, luggage or other leather goods in flooded areas - or in muggy summer weather - should be removed promptly before the mildew grows into the leather and leaves permanent stains or other damage.

To remove mildew from leather goods, wipe with a cloth wrung out of a mixture of denatured alcohol and water, half and half, and dry in a brisk current of air. Or wash leather with a thick suds of mild, neutral soap or saddle soap, wipe with a damp cloth and dry promptly.

HOME LAUNDERINGBlanket-Washing Tips

Because of the cool weather, you may have been putting off the blanket washing job. When you do wash your wool blankets, try the easy soak method of getting them clean. Researchers have found that woolens shrink chiefly because of the agitation of wool in water. Here are tips on washing blankets to save shrinkage:

Soak the blanket for 15 to 20 minutes in the washer. Use moderately warm water and a synthetic detergent. Turn the blanket over two or three times by hand, but don't run the washer. Put through the wringer, or spin off the water. Next, soak-rinse the blanket 5 minutes in clear, warm water, again turning the blanket two or three times. Put through the wringer or spin off the water and repeat the process for a second soak-rinse.

After the final spinning or wringing, stretch or block the blanket to its original size. It's easier to stretch the blanket if two people pull it from opposite ends, but be sure not to distort its shape by tugging only at the corners. Hang the blanket across two lines to distribute weight, and turn end for end several times to prevent line marks.

To dry in a dryer, preheat dry bath towels and "mix" the blanket with them. After 15 minutes at high heat, remove the damp blanket and stretch.

To raise the nap, brush it vigorously on both sides with a nylon or a wire pet brush. Then steam-press the bindings on both sides.

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Soak Heavily Soiled Clothes

Whether your washing machine washes summer clothes to your satisfaction depends partly on whether you give attention to pre-washing jobs. No matter what type of washer you have, you'll need to do some work in advance of the regular washing.

Advance soaking is recommended for clothes that are heavily soiled or have soil worked deeply into the fabric so that it is difficult to remove with ordinary washing. How to soak and how long to soak depends on the condition of the clothes. You may want to soak muddy overalls in a tub of cool water in advance of washing. But a soak in lukewarm water and detergent may be more successful for the "worn in" soil on collars and cuffs of men's shirts. One of the methods found most effective for loosening hard-to-remove soil in tests in U. S. Department of Agriculture laboratories was a 10 to 15-minute "agitated soak" in the washing machine, using lukewarm water and about half as much detergent as is needed for regular washing.

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or after

USE SHORT CUTS
AT HOME TO SAVE
TIME, ENERGY

Come summer and warm weather, most homemakers look for easier ways of doing household chores to make time for more leisure.

Home Agent _____ points out that a few steps here and a few motions there soon add up just as pennies do in a piggy bank. Jobs at home can be studied and improved just as in industry. She passes on some short cuts in food preparation from Mrs. Esther Trammell, assistant professor of home economics at the University of Minnesota.

- Instead of cutting one stalk of celery or rhubarb at a time, cut several stalks together on a cutting board, using a French knife.
- Pare vegetables or fruit directly onto newspaper, so the peelings can be put into the garbage without extra handling.
- Bake cookies such as chocolate chip or oatmeal in a shallow cake pan, then cut while still warm before removing from the pan.
- When making rolled cookies, cut cookie dough into squares, strips or diamond shapes with a pastry wheel. Cookies will have attractive edges and there will be fewer scraps to reroll. Children don't mind odd shapes of rolled cookies - so why re-roll?
- Use a pastry canvas for rolling cookies as well as pastry. But in using canvas, work flour into it with your hands before rolling dough on it the first time after the canvas has been laundered. Then less flour will be needed for later rollings. To store the pastry canvas, wrap it in waxed paper and store it in the refrigerator until you need it again. This saves washing each time and prevents fat on the cloth from becoming rancid.
- After using the grater for lemon rind or cheese, clean the grater with a vegetable brush.
- When beating eggs by hand with a rotary beater, place a damp cloth beneath the bowl to prevent it from sliding on the table top.
- If you find that your food grinder tends to slide, too, prevent this by inserting a piece of sandpaper, rough side next to the board or a piece of felt.

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ATT: CLUB AGENTS
For use week of July 8
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First of two stories on barbecuing poultry

MAKE A BARBECUE
PIT FOR BACKYARD

Looking for a way to turn an ordinary picnic into an extra-special occasion? Then try a barbecue with chicken, or turkey, suggests Club (Home) Agent _____.

For a backyard barbecue with family and a few friends as guests, the equipment can be simple with less than five dollars tied up in a few cinder blocks and some wire for a grill. This portable equipment can easily be placed in the trunk of the car and transported to a picnic site away from home.

Constructing the barbecue pit is a good do-it-yourself project for 4-H'ers and other young people, _____ says. Milo Swanson, associate professor of poultry husbandry at the University of Minnesota, says cinder blocks, 6 inches x 8 inches x 16 inches are ideal for building a barbecue pit of any size. They are merely stacked in courses without being cemented together. Avoid using cement blocks, Swanson cautions, for they are heavy to transport and are subject to cracking from heat.

Here are Swanson's directions for constructing the pit:

For a family-size barbecue, 18 blocks will make a pit large enough to accommodate 10 chicken halves. Select a level site and stack the blocks 2 blocks wide, 2 blocks long and 3 courses high. This will provide a cooking area enclosed on three sides. The grill for this pit can simply be a 2 foot x 3 foot piece of 1 inch x 1 inch or 1 inch x 2 inch welded wire supported by three 2 foot welding rods.

Charcoal briquettes are the most convenient and satisfactory fuel for barbecuing poultry, giving a great deal of heat with little or no smoke. For a family-size pit, from 10 to 20 pounds of charcoal will be necessary.

To start the fire, pour the briquettes from the bag into a pile, then soak lightly with kerosene and light with a piece of burning paper. When the flames have disappeared and the briquettes are burning, as evidenced by small white spots on their surfaces, distribute the briquettes evenly over the bottom of the pit so they are no more than one layer deep. A garden rake is convenient for this purpose. Allow time for the odor of the kerosene to disappear before placing the birds on the pit - about 15 to 20 minutes from the time the fire is first lighted.

Next weeks issue will carry an article on the cooking procedures in barbecuing poultry.

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NOTE TO AGENT: The Bulletin Room has a limited number of copies of BARBECUING POULTRY -- Here's How! in case you want to write for a few for your bulletin rack. Directions are given for constructing pit and for barbecuing.

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A U. of M. Ag and Home Research Story

LIMING INCREASES
ALFALFA YIELDS

Liming has long-time benefits for all crops in a rotation, according to County Agent _____.

He points to a recent research report from A. C. Caldwell, soils scientist at the University of Minnesota, who has conducted liming trials for six years at the Rosemount Agricultural Experiment Station.

Caldwell, in fall 1951, applied lime treatments of 0, 3, 6, 12 and 24 tons per acre on land that was put into a corn, oats, hay, hay rotation. All plots received the same fertilizer treatment. The only difference was in the amount of lime applied.

Hay yields in 1956 were .36 tons per acre higher where 3 tons of lime per acre were applied and .42 tons higher where the land received 6 tons of lime per acre. Higher liming rates, though didn't bring hay yield increases large enough to pay the added cost for the lime.

The 3 and 6-ton liming rates increased oat yields by 3 bushels per acre.

Corn yields were no higher, on the average, on any of the limed plots. In liming trials in Mower county, however, lime increased corn yields about 8 bushels per acre.

These findings back up the reasoning used for years by soils men, Caldwell says. Liming pays most often for legumes. It often helps all crops, though, by making phosphate and other nutrients more readily available.

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BE ON GUARD
AGAINST GAS
IN SILOS

A few simple precautions can eliminate most of the danger from "silage gas poisoning" during silo filling this year, says County Agent _____.

Glenn Prickett, extension farm safety specialist at the University of Minnesota, says that nitrogen dioxide gas killed three Minnesota farmers in fall, 1955.

From what is known so far, it seems that formation of this gas is speeded up by combinations of drought, high temperatures and vigorous growth of plants. The gas is given off when corn or grass silage ferments in the silo, shortly after it's put in. The gas is heavier than air and settles around the base of the silo.

Research on this problem is being conducted at the University by Rodney Briggs, agronomist, J. J. Jezeski, dairy bacteriologist and C. K. Otis, agricultural engineer.

They recommend these safety procedures at filling time:

1. Be alert for irritating yellow or brown fumes in or near the silo. If these fumes are present, stay away.
2. Allow no one to enter the silo without first operating the blower from 10 to 15 minutes to completely ventilate the silo, chute and silo room. Do this during filling and whenever entering the silo for the first 7-10 days afterward.
3. Always leave the chute door open at the top surface of silage to prevent accumulation of gases on the surface of the silage.
4. Provide extra ventilation at the base of the chute when silos are attached to the barn. Where there is a separate silage room, this may mean constructing a door to the outside from the room to remove gas at the floor level.
5. Keep children and animals away from the silo area for the 7-10 day danger period.

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University of Minnesota
St. Paul 1, Minnesota
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Immediate Release

ELECTRICITY COSTS RUN LOW FOR DRAINING FARM LAND

It costs less than \$2 per acre annually for electricity to operate a station for a tile drainage system on a Minnesota farm.

That's the report from Curtis Larson, agricultural engineer at the University of Minnesota, based on studies conducted on several Minnesota farms.

In 1955, it took from 2.5 to 43 kilowatt hours per acre per season for pumping out the water that collected in the pumping station. Last summer, the range was from 11.3 to 69 kilowatt hours per acre. The higher average in 1956 was due to heavier rainfall in the areas where Larson conducted the studies.

For the two year period, the average was 26 kilowatt hours per acre, which figures out to less than \$1 per acre, if taken from the farmstead transformer. Where a separate meter is used, the cost runs from \$1 to \$2 per acre, depending on the number of acres drained.

Pumping stations are used in field drainage systems where there is no natural slope for drainage. The tile directs the water into a pump in the station where there is an automatic pump installed. When the water reaches a certain level, the pump starts and moves the water into a drainage outlet.

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University Farm and Home News
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University of Minnesota
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July 1, 1957

For Release at 2 p.m.
Tuesday, July 2

Immediate Release

OATS SILAGE RETURNS MORE T.D.N. THAN OATS GRAIN

NEW PRAGUE—Oats harvested as silage produced 48 percent more total digestible nutrients (T. D. N.) per acre than did oats for grain in 1956 University of Minnesota research, farmers were told here today.

At an oats silage demonstration at the Minnesota Valley Breeders association farm, Agronomist Rodney Briggs from the University said that in trials at 5 branch experiment stations last year, oats as silage averaged 2,374 pounds of T. D. N. per acre.

When put in the grain bin, the average was only 1600 pounds T. D. N. The increase in feed value from putting the oats up as silage, Briggs said, was equal to 17 bushels of corn or 33.9 bushels of oats grain.

He explained two ways to make grass silage:

One way, he said, is to cut the oats early, wilt it, and put it in air-tight silos at low-moisture. This method was demonstrated at the MVBA farm.

The other way—more practical for most farmers—is to let the oats get more mature, cut it in the early dough stage and store it in a conventional silo. It's extremely important to cut at the right time, Briggs said. Oats silage cut too early is apt to get sour. If cut too late, it may "carmelize" or mold.

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B-1558-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 1, 1957

Immediate Release

PURCHASED FEED TIPS PRODUCTION EXPENDITURES FOR MINNESOTA FARMERS

Feed costs are the biggest single production expense on Minnesota farms, according to a 1956 survey.

The study was conducted by R. W. Cox, University of Minnesota agricultural economist, and R. A. Bodin and R. J. Schrimper, officials with the State-Federal Livestock Reporting Service.

Based on a sample of farmers, the researchers found that expenditures for production items averaged \$6,052 in 1955. Feed costs made up \$1,112, or 18 percent of the total.

Second biggest cost item was for buying motor vehicles, machinery and other equipment--\$845. Third largest was purchase of livestock and poultry, averaging \$609 per farm.

Other high costs were: petroleum products, \$522; repair and operating costs for vehicles and machinery, \$430; construction and land improvement, \$401 and property taxes, \$337.

These data are intended, partly, to serve as a base for determining the net farm income and also for determining the index of prices paid by Minnesota farmers.

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B-1559-pjt

University Farm and Home News
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University of Minnesota
St. Paul 1, Minnesota
July 2, 1957

Immediate Release

VARIETAL TRIALS TO BE FEATURED AT SOUTHWEST FIELD DAY

Comparisons of different varieties of farm crops will be featured during the Southwest Minnesota Field Day Monday, July 8, at the Norman Thompson farm near Rushmore.

Ross Huntsinger, Nobles county agent, is in charge of arrangements for the event, which is sponsored jointly by the Southwest Minnesota Crop Improvement association, the University of Minnesota Agricultural Extension Service and the University Agricultural Experiment Station.

Visitors will see varietal trials of winter wheat, winter rye, barley, oats, flax, spring wheat, soybeans, sunflowers and grain sorghum. There will also be a demonstration of pea-oats and pea-vetch mixtures for silage, compared with oats alone and oats fertilized with nitrogen.

The field day starts at 1:30 p.m. To reach the Thompson farm, drive west from Worthington 10 miles on U. S. highway 16. Turn left at Rushmore, go south 5 miles, then turn east and drive $\frac{1}{2}$ mile.

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B-1560-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
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Immediate Release

FARM WORK ACCIDENT DEATH RATE DECLINES

The death rate from farm work accidents in Minnesota is steadily declining.

In 1956, there were 52 fatalities from agricultural work accidents in the state--about 20 percent below the average for the past 10 years.

These figures come from Glenn Prickett, extension farm safety specialist at the University of Minnesota, who points to a recent report from the Minnesota Department of Health. Prickett reminds state residents of Farm Safety Week, July 21-27.

There were 57 farm work accident deaths in the state in 1955. Sixty people died from these accidents the year before and the toll was 73 in 1950. Average for the past 10 years was 65 deaths annually. From 1940-49, the annual average was 83.6 deaths from farm work accidents.

At the same time, tractors on Minnesota farms increased from 152,000 in 1945 to 255,000 in 1954. Combines jumped from 16,000 to 61,000 in the same period. No field choppers or field balers were listed in the Minnesota census at the end of World War II, but there were 15,000 choppers and some 25,000 balers in 1954.

These machines have made an increase in accident danger, Prickett points out. Yet, the number of deaths from farm machinery accidents has changed little from year to year. There were 27 farm machinery deaths in 1956, 28 in 1954 and 33 in 1950.

After a four-year decline, farm home accidents increased in 1955 and 1956, Prickett adds. Fatalities from these accidents totalled 94 in 1956, 81 in 1955, 63 in 1954, 77 in 1953, 78 in 1952, 99 in 1951 and 107 in 1950.

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Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
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Release at 2 p.m.
Wednesday, July 3

NEW SILAGE MAKING SYSTEM DEMONSTRATED AT U FIELD DAY

ROSEMOUNT--A new idea in forage preservation--low-moisture, baled grass silage--was unfolded before farmers attending the annual Station Day at the University of Minnesota's Agricultural Experiment Station here today. (Wed. July 3)

The system was explained by Rodney Briggs, University agronomist. He said the method will be extensively tested in the future, but there's little reason why it shouldn't be successful.

Rosemount station staff men showed how it works: They cut the hay, let it wilt until it contained about 40 percent moisture, then baled the hay without chopping it. They stacked the bales on one end of a large sheet of plastic, then pulled the loose end of the sheet over the stack and stapled it together so that the result was an air-tight bag of baled silage.

Low-moisture silage itself is known to be successful. But in the past, it's been stored only in glass-lined, airtight upright silos--which few farmers have. Briggs used the same principle, but baled the hay instead of chopping it and stored it in plastic bags, which have already worked out well for all kinds of silage.

Briggs said the system should simplify harvesting, eliminate most spoilage and make the silage easy to handle.

With conventional silos, grass silage is a "touchy" proposition, Briggs pointed out. It's normally chopped in the field and put in the barn at 70-75 percent moisture. If there's more moisture than that, it tends to sour. With too little moisture, it molds. That means the farmer must be extremely careful to get the right moisture content at harvest time, or he must put a preservative in the silo.

(more)

But if the silo can be kept airtight, the material can be put in at a lower moisture content without any spoilage, Briggs stated. No preservative is needed, either. Silage ferments without air. And plastic bags have proven to be effective, airtight silage containers.

Hay can be baled at 40 percent moisture with most modern hay balers. Newly-developed hay pelleters could also be used, Briggs added. Either bales or pellets of silage would be easy to feed to cows, he said. A farmer could also make low-moisture grass silage with a conventional field chopper, Briggs said. The bales or pellets just make it easier to handle.

Forage usually needs to be wilted for 3-5 hours after cutting to be reduced to 40 percent moisture, Briggs explained.

Rollin Dennistoun, staff member at the Rosemount station, and George Blake, University soil scientist, showed farmers four equipment setups that can be used for wheel-track corn planting, on undisked, freshly plowed ground. They pointed out that by eliminating disking and harrowing and by cultivating corn less, a farmer can save up to a full hour or more of man and machine time for every acre of corn he raises.

Many Minnesota farmers who have tried this system have reported corn yields as good or better than with conventional planting systems, Dennistoun and Blake said.

Laddie J. Elling, University agronomist, told visitors that winter-hardy alfalfa varieties showed up well during the 1956-57 winter in field plots at the Rosemount station. Last winter, he said, was one of the roughest in years and therefore put all alfalfa varieties through a severe test.

Where the alfalfa was properly managed--not clipped in the fall--Vernal winterkilled 12 percent, Narragansett 16 percent and Ranger 18 percent. University breeding stock winterkilled 14-15 percent. DuPuits and Lahonton, both less winter-hardy, winterkilled 53 and 75 percent respectively.

The tests also showed the importance of correct legume management, Elling explained. Where the alfalfa was clipped in September and again in November, only 10 percent of Ranger and 42 percent of the Vernal plants survived the winter.

Fall clipping, Elling said, is not recommended for newly-established alfalfa. All varieties in these tests had been seeded in spring, 1956.

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B-1562-pjt

University Farm and Home News
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Immediate Release

COOL WATER MAY BE SAFEST FOR FRUIT STAINS

Cool water may often be safer than boiling water for removing the fruit stains that are a perennial summertime problem.

It is true that laying stained fabric over a bowl, then pouring boiling water on the stain from above is a fast and effective way of getting rid of fruit stains, particularly on table linen, according to Athelene Scheid, extension clothing specialist at the University of Minnesota.

However, she reports that recent U. S. Department of Agriculture research shows that boiling water may damage some fabrics. Boiling water removes some special finishes on cotton, shrinks Dynel and some wools and may fade or affect the texture of silk.

Cool water may be used safely on any fabric that will not water spot. If the stain is mostly on the surface, you may be able to sponge it off with a damp cloth. Or, lay the stained fabric, face down, on a pad of cleansing tissues or on an absorbent cloth and force water through the stain with an eye dropper or small syringe to prevent as much as possible of the surrounding fabric from getting wet.

If the fabric is washable and will be going into the laundry anyway, soak it overnight in cool water. Work the stain between the hands to soften the fabric and loosen the fruit particles. After soaking, rub soap or synthetic detergent on the stain, wash it and then rinse thoroughly. If a trace of the stain remains, it may be necessary to use a bleach diluted in water. Avoid chlorine bleach if there is a chance that the fabric has a resin finish, as many "wash-and-wear" cottons have.

The sooner you treat the stain, the easier it is to remove. If possible, apply water while the stain is still moist.

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iversity Farm and Home News
nstitute of Agriculture
University of Minnesota
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July 2, 1957

Special to Wilcox
County Agent Introduction

Good dairy cows need good pastures, these three men agree. Examining a renovated pasture of sweet clover, red clover, birdsfoot trefoil, bromegrass and alfalfa are (left to right) Vernon Lindberg, Farmington, his son, Larry, and George Whalen, extension county soils agent in Dakota county. Whalen is a 1950 graduate of the University of Minnesota. He was a veterans' agriculture instructor at Adams until 1954, when he was appointed to his present position.

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July 5, 1957

For release at 3 p.m.
Monday, July 8

WINTER WHEAT ISN'T RELIABLE IN SOUTHWESTERN MINNESOTA

RUSHMORE, MINN.—Winter wheat isn't reliable for southwestern Minnesota, farmers were told today by R. G. Robinson, University of Minnesota agronomist.

Speaking at the Southwest Minnesota Field Day on the Norman Thompson farm near here, Robinson said that none of the winter wheat varieties are reliably winter-hardy in this area. He showed visitors trial plots of winter wheat which suffered severe damage from winter-killing.

Robinson explained that in southwestern area field tests in past years, all winter wheat varieties have been severely winter-killed about one-third of the time. That, he pointed out, makes winter wheat too risky as a standard crop.

Winter rye, on the other hand, is very dependable in this part of the state, Robinson added, if you use recommended varieties—Adams or Caribou. Trial plots of both varieties came through last winter very well on the Thompson farm.

Most other winter rye varieties, though, fared no better than did winter wheat.

Robinson also explained varietal trials of other important farm crops during the event.

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University Farm and Home News
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St. Paul 1 Minnesota

Timely tips for The Farmer, issue of July 6

Don't vaccinate your poultry flock for all diseases at the same time. The best procedure is to allow at least 3 to 4 weeks between vaccinations. But complete all vaccination before the birds go into production.

--B. S. Pomeroy

Bright objects, such as tin can lids attached to electric fences, will attract animals to investigate. Once they are shocked by the wire, there's less chance that they will crowd through the fence.

--John R. Neetzel

Don't refuel your tractor or any other engine while it's running. Stop the engine and wait until it's cool before putting in gas. Even a hot manifold can ignite gas vapors. And as an extra precaution, carry an approved fire extinguisher as part of your tractor and combine equipment.

--Glenn Prickett

You can help keep your hogs gaining normally on hot days by setting up a water sprinkler system in or near the hog house. For hogs on pasture, it's a good idea to have a portable water vat handy for them.

--H. G. Zavoral

From now on, there's more need for feeding hay and silage to the dairy cows, either when pastures get short or when the cows graze less because of hot weather.

--Ralph Wayne

Your oats crop will bring you a larger return per acre by putting it up as silage, if you can use it as a substitute for corn silage or if it enables you to increase the size of your dairy herd. This applies only to oats that you need to grow to establish your seeding. It doesn't mean that it will pay to increase your oats acreage.

--Ermond Hartmans & Hal Routh

-more-

add 1 timely tips

Heptachlor and malathion are recommended and approved insecticides for controlling grasshoppers on forage crops. Remember, though, that a 7-day waiting period between application and harvest is necessary for either of these chemicals. Recommended rates are 2 ounces of actual heptachlor per acre of $1\frac{1}{2}$ pints of the "5-pound" emulsifiable concentrate of malathion.

--L. K. Cutkomp

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
July 8 1957

To all counties
For use week of
July 15 or later

FARM FILLERS

Pullets need to be put into the permanent laying house as soon as they start laying. On the other hand, the large eggs from the old hens bring a good price at this time of year, meaning these birds should be kept, too, says Cora Cooke, extension poultry specialist at the University of Minnesota. It's often a good idea to put the old flock into temporary quarters to make way for the new flock. The old hens can be transferred at this time of year with little drop in production, if they are kept comfortable.

* * * * *

Recent heavy rains have been costly in more than just loss of topsoil, say Curtis Overdahl and Charles Simkins, extension soils specialists at the University of Minnesota. Whenever we lose soil, we also lose valuable plant nutrients and organic matter. It takes more fertilizer--especially nitrogen--on eroded hillsides and considerable time to replace organic matter.

* * * * *

On the average, we spend 15 percent of our food dollar for milk and dairy products, but receive 25-30 percent of our food value in these products, according to extension dairymen at the University of Minnesota.

* * * * *

In field trials during the past year, none of the winter wheat varieties were winter hardy enough to be reliable in southwestern Minnesota, according to R. G. Robinson, University agronomist. Adams and Caribou winter rye, though, withstood the severe 1956-57 winter well.

* * * * *

Purchased feed made up the biggest single production expense on Minnesota farms in 1956. Feed costs averaged \$1,112, or 18 percent of the total, in a University of Minnesota survey.

* * * * *

There were 52 fatalities from agricultural work accidents in Minnesota in 1956. That is about 20 percent below the average for the past 10 years, according to Glenn Prickett, extension farm safety specialist at the University of Minnesota.

* * * * *

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 8, 1957

For Release at 2 p.m.
Tuesday, July 9

PRE-EMERGENCE SPRAYING EFFECTIVE IN CORN AT WASECA

WASECA--Pre-emergence "band" spraying on corn controlled weeds well enough to eliminate one cultivation in experiments this year at the University of Minnesota's Southern School and Experiment Station here.

That finding was reported today by John Thompson, station agronomist, during the station's annual Visitor's Day.

Pre-emergence spraying means applying the chemical after the corn is planted but before it comes up. Band spraying means putting chemicals over the corn rows, with a sprayer mounted on the planter. The chemical used in these tests was a mixture of Radox and $\frac{1}{2}$ pound of 2,4-D ester per acre.

The researchers tried Radox at rates of 4, 5 and 6 pounds per acre. In general, the heavier applications gave better control.

Thompson and University agronomists also tried broadcasting the spray over the entire field, a few days after the corn was planted. Results were equally good with that system, but band spraying was cheaper, since it's confined to a smaller area of the field.

In chemical expense, it cost from \$3-5 per acre for band spraying Radox, depending on the spraying rate. Broadcast spraying the same chemical varied from \$12-18 per acre.

Agronomist A. R. Schmid from the University reported that corn produces the best yields with the least amount of fertilizer when it follows alfalfa in the crop rotation.

(more)

He said that in 1956 experiments at the Waseca station, second-year corn following alfalfa--without extra nitrogen--yielded as much as did second-year corn following grain with 80 pounds of nitrogen per acre added. The nitrogen fertilizer was broadcast in the spring before the corn was planted.

He said the yield increase could be a result of some effect of sod on the physical condition of soil.

In the Waseca trials, corn was raised in 1955 and 1956 on plots that had been in either grain, grass or alfalfa in 1954. In each case, non-fertilized plots were compared with plots that received 20, 40, 60 and 80 pounds of nitrogen per acre.

Most economical results came from adding 20 pounds of nitrogen on second-year corn plots that had been in alfalfa--107 bushels per acre. Unfertilized plots that had been in alfalfa two years earlier yielded 84 bushels per acre.

Where plots had been in grain, though, adding 80 pounds of nitrogen per acre brought yields up to only 81 bushels per acre. The same amount on plots that had been in grass brought corn yields up to 91 bushels per acre.

H. L. Thomas, University agronomist, reported that in clover variety trials, Dollard was doing as well as or better than any other variety being grown here. He said that variety has good disease resistance--including resistance to anthracnose, black stem and to some virus diseases.

A Canadian-developed new red variety, Dollard was made available in limited amounts in Minnesota for the first time this year. It is expected to be added to the Minnesota Agricultural Experiment Station's recommended list as soon as enough commercial seed is available, Thomas said.

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B-1564-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 8, 1957

Immediate Release

RECENT HEAVY RAINS HAVE REDUCED GRASSHOPPER NUMBERS

Recent heavy rains have helped reduce grasshopper numbers around Minnesota.

A. W. Buzicky, associate state entomologist and L. K. Cutkomp, entomologist at the University of Minnesota, report that rains during the hatching season killed a large number of the two-striped hoppers that commonly hatch along roads and highways.

As a result, the entomologists say these particular hoppers won't be as much of a problem in many areas as they have been in some previous years.

The rains had no effect, though, on red-legged grasshoppers that live in hay fields. These hoppers have just started to hatch and can be expected to be out in large numbers in many areas of the state after first hay cutting is completed.

Where grasshoppers aren't too serious, they can be controlled by leaving a strip of hay stand after the second cutting, then spraying the strip. Where there is a heavy infestation, it may be necessary to spray the entire field.

Recommended insecticides on hay or pasture fields are aldrin, at 2 ounces per acre or heptachlor at 2-4 ounces per acre. Aldrin can be used up to 15 days before hay is cut or pastured and heptachlor can be applied up to 7 days before cutting or pasturing.

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B-1565-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 8, 1957

Immediate Release

IFYE FROM SCOTLAND TO MINNESOTA

Margaret Warnock, 21, Eastfield of Coulter, Biggar, Lanarkshire, Scotland, will arrive in Minnesota Wednesday evening (July 10) to live with farm families in Swift county as an International Farm Youth exchangee.

While in Swift county her hosts will be the William Carstens family of Appleton and the Harold Jensen family of De Graff. She will be in Minnesota until August 22.

In Scotland Miss Warnock lives on a large dairy and sheep farm. She is a high school graduate and has attended the Edinburgh College of Domestic Science. She is active in the Young Farmers' Club in her locality and has served as its secretary.

According to Stanley Meinen, assistant state 4-H club leader at the University of Minnesota, Miss Warnock is one of 15 rural young people from 11 countries who will live and work with Minnesota farm families this summer. Seven International Farm Youth exchangees are now in the state from Germany, Greece, Israel, the Netherlands, Norway and India.

In the return phase of the exchange, Minnesota has sent two delegates to Europe -- Genevieve Carter, Bemidji, to Sweden and Duain Vierow, North St. Paul, to the Netherlands -- and will send three others in August and October.

Purpose of the IFYE program is to further international understanding at the grass roots level. The exchange is conducted by the National 4-H Foundation in cooperation with the Agricultural Extension Service.

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B-1566-jbn

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
July 8 1957

To all counties
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A U. of M. Ag. and Home Research Story

CORN YIELDS BEST
FOLLOWING LEGUMES

Minnesota farm scientists have more evidence that you can get better corn yields by planting it in fields that were in alfalfa before, according to County Agent _____.

He points to 1956 field studies conducted at the University of Minnesota's Southern School and Experiment Station, Waseca, by A. R. Schmid, University agronomist.

Schmid found that second-year corn following alfalfa, without extra nitrogen, produced yields as high as did second-year corn following grain with 80 pounds of nitrogen per acre added just before the corn was planted.

In 1955 and again in 1956, corn was raised on plots that had been either in grain, grass, or alfalfa in 1954. In each case, non-fertilized plots were compared with plots that received 20, 40, 60 and 80 pounds of nitrogen per acre, broadcast in the spring.

On second-year corn last year, yields where no fertilizer was applied averaged only 32 bushels per acre following oats, 29 bushels following grass and 84 bushels per acre following alfalfa--which was as high as when 80 pounds of nitrogen per acre was added on corn following grain.

Of all treatments and plots, the most profitable results came from adding 20 pounds of nitrogen to second-year corn following alfalfa--107 bushels per acre. That same nitrogen application brought yields up to only 39 bushels per acre in second-year corn following grain and to 41 bushels in corn following grass.

Schmid says that the yield increase on corn following legumes is due primarily to the added nitrogen in the soil but some of it could be a result of some unknown effect of sod on the physical condition of the soil.

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University Farm and Home News
Institute of Agriculture
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To all counties
ATT: HOME AGENTS
For use week of July 15

ELECTRICITY CAN
BE DANGEROUS

Keep electrical appliances in good repair and you will prevent many home accidents, says Home Agent _____.

Farm home accidents in Minnesota increased in 1956 over the previous year. As Farm Safety Week is being observed July 21-27, _____ urges that farm families make a special effort to make their homes safer.

Electricity can kill or badly shock a person who is in contact with a defective appliance while his body is grounded, says Glenn Prickett, extension safety specialist at the University of Minnesota.

Defective motors in washers may be the cause of a home accident, according to Prickett. Washers are usually not grounded and the added hazard of a wet floor is frequently present. A person who is standing in water and touching the metal frame of a defective washer at the same time may "complete the circuit" and receive a shock. A three-wire cord placed in a three-wire grounded circuit will ground the washer and eliminate the danger.

Avoid working around the kitchen sink with electrical appliances, warns Prickett. If a person is in contact with a defective appliance and a water faucet at the same time he may receive a severe shock.

Using an electric mixer, especially the portable type, on top of the range can be dangerous. It is much better to work on a wooden or plastic surface. If you find it necessary to use the mixer while cooking, avoid touching the metal of the range. As a matter of fact, when using an electrical appliance, avoid touching any metal.

Still another electrical danger in the home concerns radio and television sets. Children have been electrocuted when they touched a defective radio or television set and a radiator or register at the same time. Teach the children to keep hands off these appliances.

Keeping appliances in good repair cannot be over-stressed, says Prickett.

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To all counties
For use week of
July 15 or later

CHECK COMBINE
BEFORE HARVEST

Worn parts or poor adjustment on your combine can rob you of part of your grain crop at harvest time, warns County Agent _____.

He points out that D. W. Bates, extension agricultural engineer at the University of Minnesota, lists four main parts on the combine to check closely before you take the machine out of the shed. These parts are the cutterbar and reels - or pick-up attachment - cylinder, rack and cleaning shoe.

Replace any broken reel slats, or, on a pick-up combine, replace any broken or badly bent teeth.

Check for even clearance between the cylinder and concaves. You may have to replace concaves that have too much wear in the middle. Adjust the cylinder for the right clearance for the crop you'll be harvesting.

Clean out any plugged rack openings before going out in the field.

Look for obstructions or holes in the sieves. Clean them or make any necessary repairs.

Finally, adjust the combine according to the operator's manual for each crop combined. Adjust the power take-off speed, wind blast cylinder speed, travel speed or concave clearance if the grain isn't threshing well.

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University Farm and Home News
Institute of Agriculture
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July 8 1957

To all counties
ATT: CLUB AGENTS
For use week of
July 15 or after

Second of two stories on barbecuing poultry

BARBECUE CHICKEN
FOR A REAL TREAT

(Note: Last week's issue carried a story on how to build a barbecue pit.)

Golden brown chicken, barbecued out of doors, is a taste treat that will tempt appetites of young and old alike.

To be sure the chicken is tender, it's best to select 9 to 12-week old broilers or fryers weighing from 1-3/4 to 2-1/2 pounds (eviscerated weight), says Club Agent _____ . Be sure to select well meated, top quality and uniform-sized birds. If you are buying the birds, buy them cut in halves and ready for the grill.

Milo Swanson, associate professor of poultry husbandry at the University of Minnesota, gives these directions for barbecuing chicken:

Place quarters or halves of chicken on the grill with the skin side up and as close together as possible so there is a minimum loss of heat. Immediately baste the pieces with barbecue sauce. Clean, new dish mops with wooden handles are ideal for this purpose. Fiber brushes may also be used.

If you are barbecuing for the first time, you may want to try a mild barbecue sauce of the New England variety. For 10 halves of chicken you will need 1 cup water, 2 cups vinegar, 1/2 pound butter and 2 tablespoons salt. Bring sauce to a boil and keep hot on the grill.

Turn the birds every five or six minutes and baste after each turning. Use tongs or a pair of clean white canvas gloves to turn the pieces. Sticking with a fork will permit the juices to run out.

Long, slow cooking is the key to successful barbecuing, Swanson says. Allow at least an hour and a quarter, or an hour and a half of cooking time for chicken broilers. The chicken is done when the drumstick can be easily turned loose from the meat.

Generally one layer of briquettes will be sufficient to cook one batch of birds.

Barbecued chicken is best when served piping hot. Swanson suggests that the rest of the menu be ready to serve immediately after the birds have finished cooking.

Accent should be on the barbecued chicken - so keep the rest of the menu simple. Cole slaw, cranberry sauce, potato chips, hot buns, ice cream cups and a beverage will be easy to serve and good accompaniments to the chicken. -jbn-

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To all counties
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VARIE'AL TRIALS
BULLETIN ISSUED

A revised edition of "Varietal Trials of Farm Crops" has recently been issued by the Agricultural Experiment Station at the University of Minnesota, according to County Agent _____.

The publication summarizes trials conducted last year at the University's experiment stations at St. Paul, Rosemount, Waseca, Morris, Crookston, Grand Rapids and Duluth and on farmer's fields in southwestern Minnesota, northern Minnesota and other areas.

At each location, recommended varieties, important old varieties and promising new ones are grown in field plots, which are handled so that factors affecting yield and other characteristics are as nearly the same as possible for each location.

Descriptions of varieties and yields and other comparative information are included in the newly-issued bulletin.

University-recommended crop varieties are as follows:

Oats--Ajax, Andrew, Branch, Garry, Minland, Rodney and Sauk; Barley--Kindred, Traill, Vantage and Fox. Montcalm in most of northern Minnesota and Peatland in all northern counties except in the Red River Valley; Rye--Adams and Caribou; Flax--B5128, Marine and Redwood; Winter Wheat--Minter and Minturki; Spring Wheat--Lee and Selkirk; Durum Wheat--Langdon and Ramsey, for Central Minnesota and the Red River Valley only; Soybeans--Acme, Blackhawk, Capital, Chippewa, Flambeau, Grant, Harosoy, Norchief, Ottawa Mandarin and Renville.

Field Peas--Chancellor and Dashaway; Sunflowers--Advance and Arrowhead; Alfalfa--Ladak, Narragansett, Ranger and Vernal; Medium Red Clover--Midland and Wegener; Biennial Sweet Clover--Evergreen and Madrid; Smooth Bromegrass--Achenbach, Fischer, Lincoln; Timothy--Itasca and Lorain; Sudan Grass--Piper; Birdsfoot Trefoil--Empire.

You can get a copy of the new bulletin from the county agent's office or by writing to the agricultural bulletin room, Institute of Agriculture, University of Minnesota, St. Paul 1.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
July 9 1957

ATT: Agricultural Agent
Home Agent
4-H Club Agent

GARDEN FACT SHEET FOR JULY
By O. C. Turnquist
C. Gustav Hard
Extension Horticulturists

Ornamentals

1. Iris can be transplanted this month. After the blossoms have died and the foliage is beginning to show signs of age, iris can be either transplanted to a new site or divided, as the gardener sees fit. Careful inspection should be made to see that no diseased roots are transplanted. Transplant into a good rich fertile soil and apply a complete fertilizer at the rate of 2 pounds to 100 square feet. Cover the iris roots with about one inch of soil.
2. Careful garden grooming this month will add much to the pleasure of the gardener. Careful edging, watering, removal of dead flowers and control of lawn weeds are essential.
3. Many other perennials can be transplanted late this month. The peony, oriental poppies, bleeding heart can be transplanted. Tulips can be dug up, as well as all other hardy bulbs, and can be stored until the autumn season when they will be planted again. This is especially important if the gardener wishes to rejuvenate the soil this summer.
4. If you let crabgrass go to seed, you'll be increasing the amount of this weed in your lawn. Chemical sprays of phenyl-mercury compounds or potassium-cyanate are recommended. Repeated application may be necessary for complete control. If the bluegrass is burned after application of the chemicals, do not be alarmed; the bluegrass will recover.
5. Watch for thrip injury on the gladiolus. Thrip can be controlled by regular spray with DDT or malathion.

Cooperative Extension Work in Agriculture and Home Economics, University of Minnesota, Agricultural Extension Service and U. S. Department of Agriculture Cooperating, Skuli Rutford, Director. Published in furtherance of Agricultural Extension Acts of May 8 and June 30, 1914.

6. Perennial seeds can be started this month. Plant seeds of Canterbury bell, English daisy, forget-me-not, fox glove, hollyhocks, sweet William and many others in sterilized flats of soil and cover with moist newspaper until they have germinated. The seedlings can be transplanted into the garden in a protected location.

Fruits

1. Cyclamen mites have been especially serious this year on Red Rich, Wayzata Premier and other varieties of strawberries. Seedy or misshapen, poor quality berries usually result, though often the plants remain green and vigorous. After harvest, spray with 50 percent wettable powder of Kelthane. Use 2 tablespoons per gallon of water. Don't spray during period of fruiting, as the material is poisonous.
2. Apple maggot flies are emerging and immediate steps should be taken to spray the apple trees with DDT or methoxychlor. Use 2 tablespoons of the 50 percent wettable powder of either material per gallon of water. Repeat spray after 10 days.
3. If the old planting of June-bearing strawberries is to be left for another year, it must be renovated. Cut off and remove all foliage. Rake out the straw mulch and narrow the rows to about 8 inches, using a plow, cultivator or hoe. Hand hoe the narrow strip remaining to remove old plants and weeds. An application of a complete fertilizer along the sides of the row, using one pound of a high nitrogen fertilizer per 25 feet of row would be desirable.
4. Fruit on your pie cherry trees may be protected from birds by covering the small trees with cheesecloth or old curtain material.
5. Everbearing strawberries should be mulched after a good rain. Ground corn cobs, sawdust, chopped straw or lawn clippings may be used. This mulch will conserve moisture, keep fruits clean and smother weeds.

Vegetables

1. Aphids have been troublesome on tomatoes, cucumbers and other vegetable crops. They are readily controlled with malathion. Follow directions on the container

- for application. Don't harvest the vegetables until six days after treatment.
2. Methoxychlor should be applied to garden plants to control chewing insects. It appears to be less injurious to tomatoes and vine crops than DDT.
 3. Tomato and potato blight may be controlled with zineb (Parzato or Dithane). Follow directions on the container for applications.
 4. If your tomatoes are spaced close together, they should be pruned and staked. Prune out the lateral branches that develop between the stem and a leaf. Allow only two or three stems to develop by pruning the laterals frequently.
 5. Apply a mulch of clean straw, ground corn cobs or lawn clippings around the garden plants, preferably after a rain. This will smother weeds, conserve moisture and keep vegetables clean.
 6. Harvest of asparagus and rhubarb should cease in order that top growth may develop during the remainder of the season for good yields of the vegetable next spring.
 7. In areas where gardens have drowned out because of excessive water, the soil should be cultivated and aerated before new plantings are made. Several vegetable crops may still be planted for a crop by fall. These include carrots, beets, radish, lettuce, turnips, kohlrabi, peas and beans.

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St. Paul 1 Minnesota

To all counties

For use week of
July 8 or later

GET RID OF TURKEYS
IF BLUECOMB HITS

If bluecomb disease hits your turkey flock, the only way to completely eliminate the disease is to sell all the turkeys on the farm before starting a new flock.

That advice comes from J. T. Tumlin and B. S. Pomeroy, veterinary scientists at the University of Minnesota.

After getting rid of the turkeys, thoroughly cleanse and disinfect all houses and equipment. Then wait at least 2 weeks, longer if possible, before replacing the birds.

Bluecomb-one of the worst turkey diseases - caused Minnesota turkey growers a million dollar loss in 1956, according to Tumlin and Pomeroy. Death losses from the disease usually don't go over 50 percent, but complete loss may occur in some flocks.

Recent research shows that the disease is apparently caused by a virus or virus-like agent. Field trials also show that some antibiotics, either alone or in combination, can reduce death losses by 40 or 50 percent. Antibiotics won't completely eliminate the disease, though. But they may be helpful in controlling secondary bacterial infections.

When the disease occurs in growing and range turkeys, the veterinary scientists recommend these steps. Give the birds a flush of epsom salts, at 1 pound per 5 gallons drinking water, or 1 pint of molasses per 5 gallons of water for half a day.

Then use an antibiotic in the water or give it at 100 to 200 grams per ton of feed. Use the antibiotic 4 or 5 days or as long as the flock is sick.

Don't use the flush for bluecomb-infected poults. Instead, use high-level antibiotics at 500 grams per ton feed, or 250 parts per million in drinking water.

To break the disease cycle, though, the only certain way is to completely "depopulate" the farm of turkeys for at least two weeks, the veterinary scientists conclude.

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(see Special) C. A.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
July 10, 1957

To northern and central
Minnesota counties

For use week of July 15
or after

KNOW OF SOME
GOOD WILD
BLACKBERRIES?

_____ county residents may have a part in the University of Minnesota's efforts to develop better and hardier blackberries, black and red raspberries and blueberries for this state.

County Agent _____ announces that Robert Tuveson, botanist with the U. S. Department of Agriculture, is now in the field in Minnesota and Wisconsin looking for unusually good wild blackberries, raspberries and blueberries.

The botanist wants to see the wild plants in fruit and get a sample of seeds. After visiting all possible locations of wild berries, he will return in September and, with the permission of the owner, will dig a few of the plants that are hardy and productive. These plants will be turned over to the University of Minnesota Fruit Breeding Farm and other experiment stations in the North Central states, where they will be propagated and then used as parents with desirable cultivated varieties, in an attempt to develop better fruits for this region.

_____ urges _____ county residents who know of locations where (Co. Agent) good fruiting wild blackberries, raspberries and large blueberries grow to write immediately to Professor A. N. Wilcox, Department of Horticulture, Institute of Agriculture, University of Minnesota, St. Paul 1. The information to Wilcox should include location of the bushes and probable ripening date.

The University horticulture department is especially interested, Wilcox says, in finding wild blackberry bushes that survive and produce fruit in open fields and clearings. It is also searching for hardier black and red raspberries and wild blueberries with exceptionally large fruits. It is important that Wilcox receive information as soon as possible as to locations and probable ripening date of such fruits. Location of the wild fruits will be kept confidential.

Cooperation of _____ county residents in providing this information will help fruit breeders to develop new and better varieties of berries for the North Central states.

University Farm and Home News
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Immediate Release

HOW TO REMOVE GRASS STAINS

Grass, foliage and flower stains—a frequent summer laundry problem—can be safely removed from most washable clothing if the treatment is suited to the fabric.

If you know the fabric is washable, first try rubbing soap or synthetic detergent into a grass or plant stain and then wash the garment, suggest extension clothing specialists at the University of Minnesota. Or, if a test on an inside edge of a seam or other hidden part of the garment shows alcohol won't affect the dye, sponge the stain with alcohol. Use alcohol diluted with water on acetate fabrics.

For stubborn stains, you can use a sodium perborate bleach. Sprinkle the moist stain with bleach, cover the garment with a solution made of 1 tablespoon of sodium perborate per pint of water, and let it soak several hours or overnight. Use cool water for wool, silk and Dynel, and hot water for other washable fabrics. Rinse well.

If the plant stains still are stubborn, you can use stronger sodium perborate on the stain and dip it into very hot or boiling water. Rinse well, and repeat if necessary.

Chlorine and sodium perborate bleaches generally remove the same types of stains, say the specialists. However, chlorine bleaches should never be used on wool, silk, blends containing these fibers or on many of the new "wash and wear" cottons that have resin finishes.

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B-1567-jbn

University Farm and Home News
Institute of Agriculture
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Immediate Release

ARMYWORMS CAN BE CONTROLLED WITH INSECTICIDES

Farmers have some good weapons against armyworms, in case these pests invade Minnesota fields this summer.

Heptachlor, aldrin, toxaphene and dieldrin are insecticides that will control armyworms, according to L. K. Cutkomp, University of Minnesota entomologist.

Heptachlor can be used until 10 days before harvesting or pasturing a crop and 15 days is the rule for aldrin. Toxaphene, though, must not be used within 40 days of grazing or pasturing because of the possibility that some residue from the material may appear later in the milk or meat products.

For dieldrin, the waiting period is 30 days on forage and 7 days on small grains, if only the grain itself is to be used for human or livestock consumption.

Dosage for heptachlor is one-half pound per acre. Mix it this way: Put a quart of the "2-pound" (2 pounds of active ingredient per gallon) emulsifiable concentrate in enough water to spray 1 acre. This will usually be 5-30 gallons of water for a ground sprayer and 2 or 3 gallons for airplane spraying.

If you use toxaphene, apply it at $1-1\frac{1}{2}$ pounds of actual chemical per acre, or use dieldrin at one-fourth pound per acre.

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B-1568-pjt

(see also C.A) Special

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
July 10, 1957

To northern and central
Minnesota counties

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Immediate Release

FREEZING PEACHES THIS YEAR?

Freeze some Early Elberta peaches if you want top-quality frozen fruit.

That recommendation comes from J. D. Winter and Shirley Trantabella of the University of Minnesota food processing laboratory as a result of tests which show that Early Elbertas -- sometimes called July Elbertas -- are among the best peach varieties for freezing. In the experiments, the Early Elbertas scored high when packed in glass jars either with or without ascorbic acid.

Early Elbertas are now in from California. This variety comes on the market about 10 days to two weeks earlier than the regular Elberta peach and is superior to the latter variety for freezing. Early Elbertas from Colorado are usually on the market during the first half of August.

If peaches are not fully ripe when they are purchased, Winter and Miss Trantabella recommend that consumers allow the fruits to ripen at temperatures between 65 and 75, if possible. Peaches that ripen at warmer temperatures will have poorer flavor and color, will be more subject to browning and decay and will be difficult to peel. For best results, peaches for freezing should be well ripened -- slightly riper than for canning.

To be sure of preventing peaches from darkening in the freezer, Miss Trantabella and Winter recommend adding ascorbic acid to the sugar syrup when preparing the fruit. The ascorbic acid will also help preserve the natural flavor of the peaches.

Here are directions for preparing peaches for freezing from Miss Trantabella and Winter:

Dissolve 3 cups of sugar in a quart of cold water and let the syrup stand until clear. When you are ready to prepare the fruit, mix $\frac{1}{2}$ teaspoonful of pure ascorbic acid in a small quantity of water and add it to the syrup, mixing thoroughly. Dip only three or four peaches at a time into boiling water until the skins loosen; chill quickly in iced cold water. Peel. Pack the halves or slices directly into the prepared syrup to which the ascorbic acid has been added. Work quickly. Exposure to the air at this stage may cause darkening of the fruit. Completely cover the fruit with syrup, but leave about $\frac{1}{2}$ inch for expansion. Keep top slices submerged in the syrup by placing a generous wad of crumpled locker paper under the lid.

If ascorbic acid is not available, pack peaches in glass jars for best results.

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B-1569-jbn

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 10, 1957

Release at 2 p.m. Thursday,
July 11, 1957

HORTICULTURE IS MAJOR BUSINESS IN MINNESOTA, SNYDER SAYS

MORRIS, MINN.—Horticultural crops bring nearly \$150 million annually in total sales to farmers and food processors in Minnesota, farm families were told here today. (Thursday, July 11)

Leon C. Snyder, head of the University horticulture department, said that the fruit and vegetable processing industry alone does a \$60 million annual business, and about \$20 million of that total goes to farmers.

Snyder spoke at the annual Visitors' Day at the University's West Central School and Experiment Station here.

Listing other horticultural enterprises, Snyder said farmers sell about \$17 million worth of potatoes annually and vegetable and truck farmers market \$5-10 million. Nurserymen do a \$7 million annual business and florists in Minnesota sell about \$15 million worth of material every year.

The commercial fruit industry sells about \$3 million worth and home fruit and vegetable gardens are worth another \$20 million, Snyder said.

He added that University research has given added impetus to horticulture in the state. In past years, some 60 new fruit varieties—including early tomatoes and muskmelons that do well in west central Minnesota—have been developed by University researchers.

Snyder noted the importance of ornamental plants, without which many farm homes would be quite drab. Right now, he said, the University is testing some 800 varieties of woody ornamentals. He said plans are now underway to develop a landscape arboretum near the Fruit Breeding farm at Excelsior.

He also stressed the importance of fresh fruits and vegetables from the home garden in improving the diets of farm families.

(more)

Higher water solubility in phosphate fertilizers is increasing growth in wheat in field trials, Merle Halvorson, soils research worker at the University of Minnesota, pointed out.

In experiments conducted in cooperation with Roy Thompson, station agronomist and A. C. Caldwell, University soil scientists. Halvorson said that when fertilized with phosphate which was 85-90 percent water-soluble, wheat had grown to 15-20 percent height and was 2-3 days farther along in maturity than wheat receiving low-solubility phosphate.

He added that these results are only tentative and final conclusions will be made after the crop is harvested later this summer.

These trials are set up to test the effect of phosphate solubility on wheat and corn growth in the high-lime soils of western Minnesota. Phosphate solubility percentages being tested are 0-3, 18-20, 40-45, 60-65 and 85-90 percent.

It's too early to note any differences in corn growth from the solubility differences, but Halvorson pointed to visible difference in wheat. The greater the solubility, the higher the wheat had grown.

In wheat, the fertilizer is being tested at three different rates--6, 12 and 18 pounds of phosphate per acre--and was applied with wheat in the drill row.

The phosphate fertilizer was also "tagged" with radioactive isotopes, Halvorson added. That way, the plants can be analyzed at different stages of growth to test the uptake of phosphorus by the plants, as affected by difference in fertilizer solubility.

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B-1570-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
July 10, 1957

Special to agents in Chippewa,
Lac qui Parle, Yellow Medicine
and Swift Counties

ORVILLE GUNDERSON
IS NEW SOILS AGENT

Orville M. Gunderson, St. Paul, has been named soils agent for the Minnesota Agricultural Extension Service in Chippewa, Lac qui Parle, Swift and Yellow Medicine counties.

He will take up his duties Aug. 1 and will be located in the Chippewa county extension office in Montevideo.

Gunderson will cooperate with the Soil Conservation Service on watershed work and will work with agricultural agents in the four counties on soil testing, fertilizer recommendations and general soil management.

A native of Startuck, Minnesota, Gunderson was raised on a 160-acre farm and was a 4-H member for 4 years. He served in Europe with the U. S. Army during World War II.

He later attended the University of Minnesota and graduated with distinction in 1954. He was a University teaching assistant from March to July, 1955, and from that time until recently has been a field representative for a fertilizer company in the Twin Cities.

He is married and has 2 children.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 11, 1957

For release at noon,
Saturday, July 13

"WORLD COLLECTION" AIDS SEARCH FOR BETTER CROP VARIETIES

ROSEMOUNT—Some 10,000 crop varieties from around the world are aiding University of Minnesota scientists in their battle against plant diseases, persons attending the summer conference of the North Central division of the American Phytopathological society were told today.

The group visited the "world collection" of crop varieties at the University's Agricultural Experiment Station here, where 3,000 varieties each of wheat, oats and barley and 1,000 flax varieties are being tested for resistance to plant disease organisms in a "survival of the fittest" project started last year.

J. J. Christensen, head of the University's plant pathology department, told the group that many of the varieties being grown may be good as breeding material, even if they aren't practical for Minnesota farms in their present form.

"The reason," he said, "is that some of these foreign varieties have resistance to diseases common in Minnesota. Plant breeders can use such varieties as 'parent material' in developing new varieties that combine disease resistance with good yielding characteristics."

One of the main reasons for having the world collection of flax, Christensen said, was to find flax varieties with resistance to PasmO. No flax varieties grown so far, he stated, have much resistance to that disease. Another big disease problem in flax is astor yellows, which causes plants to fail to produce seed.

Other important plant diseases in Minnesota listed by Christensen are crown and stem rust in oats, foliage diseases, root rot and head blight in barley, and stem rust, leaf rust and root rot in wheat. The world collection of varieties is being used to develop varieties more resistance to all these diseases, he said.

All told, plant diseases cost Minnesota farmers about \$150 million per year in reduced crop yields, Christensen said.

Varieties in the world collection have been supplied by the U. S. Department of Agriculture. The research work with the collection at Minnesota is being conducted in cooperation with the department of agronomy and plant genetics. ### B-1571-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 11, 1957

For Release at noon,
Friday, July 12

FREQUENT RAINS INCREASE OCCURRENCE OF SOME CROP DISEASES

Recent rainy weather has resulted in heavier attacks of some plant diseases on southern Minnesota crops this summer, J. J. Christensen, head of the University of Minnesota plant pathology department, said this morning.

He added, however, that weather during the rest of the summer will determine the seriousness of these diseases in the northern half of the state. He spoke during a field plot tour for some 200 persons attending the summer conference of the North Central division of the American Phytopathological society, meeting on the St. Paul campus.

Christensen said that "blue dwarf"--a relatively new virus disease--is showing up more than usual in oats. Symptoms are stiff, rigid plants, short leaves and reduced yields.

Crown rust has shown up more on oats in southern Minnesota than a year ago, but stem rust is less prevalent now than in 1956.

Many foliage diseases, caused by bacteria and fungi, have shown up in barley this summer. There has been increased occurrence of head blight, leaf blight, root blight and kernel blight in barley. Virus diseases more serious than usual in barley this summer are yellow dwarf and fall-stripe.

Leaf rust is attacking wheat in southern areas. There has been some stem rust in wheat in recent days, but so far, races of this disease that affect Selkirk or Ramsey and Langdon durums aren't prevalent.

Virtually no rust has appeared on flax, mostly because of resistance in varieties being grown. There is some yellowing in flax, due mostly either to excessive water or to high-lime soil conditions. The most common disease in flax this year is "astor yellows" which distort the flower and prevents the plant from producing seed.

There has also been increased yellowing in soybeans, along with considerable root rot, resulting from infected seed, infested soil and cold weather. Christensen pointed out that in many cases, seed treatment in soybeans before planting would have been helpful this year.

Some root rot has resulted in corn, which may be the reason why some corn fields are uneven in growth. Good weather through the rest of the summer, though, could correct this condition, Christensen said. Warm weather during the past week, he added, has been extremely helpful to crops that have been suffering from root rot.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 11, 1957

Immediate Release

ANIMAL HUSBANDRY PROFESSOR NAMED AT UNIVERSITY

Ralph E. Comstock, formerly a faculty member at North Caroline State college, has recently joined the University of Minnesota staff as a professor of animal husbandry.

Comstock has received three collegiate degrees from the University of Minnesota and was a staff member in animal husbandry on the St. Paul campus from 1938 until 1943, when he went to North Carolina.

He was born at Spring Valley, Minn., in 1912. He received his B. S. degree with honors from the University in 1934, his M. S. in 1936 and his Ph. D. in 1938, specializing in animal breeding and genetics.

At North Carolina, Comstock taught animal breeding and related subjects until 1946, when he went to the Puerto Rico Agricultural Experiment Station for a year as head of the animal husbandry department there.

In 1947, he returned to North Carolina as a professor in the department of experimental statistics.

He is author or co-author of many bulletins, journal articles and other publications on animal breeding and statistics.

Comstock is a member of the American Society of Animal Production, the Genetics Society of America, the American Society of Naturalists and The Biometrics Society.

Last year, he presented two scientific lectures in Japan, at the request of the Japanese government.

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B-1573-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 11, 1957

Immediate Release

FLOCK SELECTING AND PULLORUM TESTING SHORT COURSE SCHEDULED

About 100 persons will attend the annual Flock Selecting and Pullorum Testing Agents' School July 22-26 on the St. Paul campus of the University of Minnesota, according to J. O. Christianson, director of agricultural short courses.

Elton Johnson, head of the University's department of poultry husbandry, is program chairman for the event.

Pullorum is an important disease in turkeys and chickens in Minnesota, but can be controlled through testing and eliminating infected birds. Poultry hatchery employees and others who attend the school will be instructed in testing procedure.

A ruling of the Minnesota Poultry Improvement Board and the state Livestock Sanitary Board requires that a person must attend this school for at least two years and pass at least two examinations to qualify as a flock selecting or pullorum testing agent.

Topics at the school will include selection standards and procedures, pullorum testing and eradication and instruction on other poultry diseases and programs for controlling them.

For more information, write to the Director of Agricultural Short Courses, Institute of Agriculture, University of Minnesota, St. Paul 1.

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B-1574-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
July 12, 1957

HELPS FOR HOME AGENTS

(These shorts are intended as fillers for your
radio programs or your newspaper columns.
Adapt them to fit your needs)

In this issue:

Choice Grade Beef Good Buy
Oilproof Cottons in the Future
Shopping Tips for Summer Knits
Select Appliances with Care

Top Selling Appliances
Cleaning Your Coffee Maker
Picking Annuals for Bouquets
Making Cut Flowers Last Longer

CONSUMER MARKETING

Choice Grade Beef Good Buy

The Choice grade beef now so plentiful on markets is the highest grade beef sold in most stores. Because of quality, some cuts in this grade can be roasted or broiled, while the same cuts in lower grades would require moist heat, according to Mrs. Eleanor Loomis, extension consumer marketing agent at the University of Minnesota.

Most Choice steaks may be broiled or pan fried, even top round. However, such cuts as bottom round, arm, blade and flank steaks usually are better braised. Most Choice grade roasts will make tender, juicy oven roasts, but cuts like shoulder arm roasts and heel of round roasts of Choice grade need the moist heat of braising to make them tender.

-jbn-

CLOTHINGOilproof Cottons in the Future

Cotton fabrics that are oilproof, as well as waterproof, are promised by U. S. Department of Agriculture research, though they have not yet been perfected

If they prove to be reasonable in cost and practical to manufacture, these fabrics could mean some interesting changes for the home of tomorrow. Cotton work clothes with heavy grease stains would disappear from the family laundry. Cotton aprons and housedresses worn by the homemaker would be as crisp and colorful as ever, but kitchen grease splatters would not spot them. Grease and soil resistant cotton upholstery would make housecleaning easier. Light cotton raincoats would be entirely waterproof, and grease-proof and soil resistant as well.

These new cottons are still in the testing stage in USDA laboratories. Although untreated cottons absorb oil almost instantly, oil poured on these treated cottons simply rolls off. Treated fabrics refuse to soak up moisture. Water applied to them stands in drops until it evaporates.

Researchers are aiming for an improved treatment that will make cotton fabrics oil - and water-proof and soil resistant without changing their color, weight, appearance or texture.

* * * * *

Shopping Tip for Summer Knits

Summer knit fabrics are popular because of their comfort and ease in care. But occasionally a tricot fabric has a tendency to stretch or shrink after laundering. Recent research by the U. S. Department of Agriculture shows that fabric construction is the key to whether a knit keeps its shape, is long wearing or sags and wears out quickly.

If you want a garment that keeps its shape, examine the knitted loops to see that they are fairly round and don't look stretched. If long wear is what you want, buy a closely knit tricot in a heavier weight. Researchers have found that closer knitting and heavier yarns give fabrics greater strength.

If a tricot shrinks or stretches, it's rarely the fault of the yarn. But often the fabrics are pulled lengthwise in finishing and knitting, and the knit loops are pulled out long and thin. As the fabric is laundered, the loops relax, and the garment stretches in width and shrinks in length.

HOUSEHOLD EQUIPMENTSelect Appliances with Care

Careful thought in selecting new electrical appliances will save you money, as well as valuable time and energy. Data Hochhalter, extension home management specialist at the University of Minnesota, gives these pointers in selecting such appliances:

- Consider the expected use. Be sure this appliance will really fill a need.
- Check to see if it is easy to clean.
- See that controls are easy to understand and operate. It shouldn't take a master mind to understand the operation!
- Check on durability of construction. Handles should be large enough so the appliance can be carried without danger of being burned. The appliance should also be heavy enough and sufficiently well balanced so it will not tip easily.
- Be sure that both cord and appliance have the U. L. (Underwriters' Laboratory) seal of approval to show that standards of safety have been met.
- Find out where the appliance can be serviced.

* * * * *

Top Selling Appliances

Do you know what electrical appliances were top sellers in 1956? They were clocks, irons, fans, skillets, coffee-makers, washing machines, food mixers, toasters, vacuum cleaners and refrigerators, in that order. TV, radios and record players were not included in these estimates.

* * * * *

Cleaning Your Coffee Maker

A clean coffee maker always means better tasting coffee! A good way to clean your percolator is to brew a cleaning solution in it -- baking soda in water or a mixture of about one tablespoon cream of tartar to one quart of water. One precaution to remember -- use coffee stain removers only when directed by the manufacturer and follow directions carefully.

-jbn-

HOME BEAUTIFICATIONPicking Annuals for Bouquets

The first rule in cutting annuals for bouquets is to select stems with young, newly opened or just opening flowers, says C. G. Hard, extension horticulturist at the University of Minnesota. Don't expect tight buds to open after being picked.

Annual flowers differ from certain perennial flowers in that cut stems rarely have the ability to continue development so the tight buds unfold. In gladiolus, if the lower florets show color, nearly every tight bud on up the stem will eventually open if the cut stem is well tended. On the other hand, a tight zinnia bud will not open after being cut.

* * * * *

Making Your Cut Flowers Last Longer

The cut flowers from your garden will last longer if you keep a few rules in mind. Here are some tips from R. E. Widmer, floriculturist at the University of Minnesota, to help you enjoy your flowers indoors:

Select flowers in the proper stage of development for cutting. Most garden chrysanthemums are at their best for cutting before the flower is fully open; roses, before the buds open; gladioli, when the first floret is open.

Cut flowers with a sharp knife rather than shears, making a slanting cut to keep the severed surface from resting squarely on the bottom of the container.

Immerse stems in water immediately after cutting to prevent formation of air bubbles in conducting vessels.

Remove submerged leaves to prevent contaminating the water.

Use a clean container.

Change water and cut stems daily.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
July 15, 1957

To all counties
For use week of
July 22 or later

FARM FILLERS

If pastures are getting short, it may be necessary to turn dairy cows into second growth forage or to start feeding grass or oat silage, advises Bill Hueg, extension agronomist at the University of Minnesota.

* * * * *

Electricity is helpful around the farm--but it can also be mighty dangerous. Glenn Prickett, extension farm safety specialist at the University of Minnesota, urges farmers to be careful when pulling high elevators under overhead wires. If the elevator touches the wire, the whole machine will be "charged" and the result may be fatal for the operator.

* * * * *

Another tip on farm safety: Warn your farm visitors that they are strangers to your livestock and therefore, it's best for them to stay "on the other side of the fence." Bulls, boars, rams, sows with pigs and cows with calves can all be particularly dangerous when strangers are around.

* * * * *

According to A. W. Buzicky, associate state entomologist and L. K. Cutkomp, entomologist at the University of Minnesota, rains during the hatching season killed a large number of the two-striped grasshoppers that commonly hatch along roads and highways. The rains had no effect, though, on red-legged hoppers that live in hay fields.

* * * * *

A mixture of Radox and 1/2 pound of 2, 4-D ester per acre, as a pre-emergence "band" spray, gave good control on weeds early this summer in experiments at the Southern School and Experiment Station, Waseca. In some places, the control was so effective that it was possible to eliminate one cultivation.

* * * * *

In 1956 studies at the University of Minnesota's Northwest Experiment Station, Crookston, second-year wheat following alfalfa without added nitrogen yielded about as much as second year wheat following grain with 80 pounds of nitrogen added per year.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 15, 1957

A FARM AND HOME
RESEARCH FEATURE

Winsness
~~Shiue~~
~~Rees~~
~~Shiue~~

CHEMICAL DEBARKER SUCCESSFUL IN UNIVERSITY TESTS

Chemicals can make removing bark from pulpwood a simple task, University of Minnesota forestry research shows.

Foresters L. W. Rees and Cherng - Jiann Shiue have found that a chemical called 2,4,5-T--also used for killing brush--can be sprayed or brushed on standing aspen or tamarack trees that are later cut for pulpwood. Bark from treated trees then peels off easily.

All bark needs to be removed from trees used for pulpwood, but debarking in the past has often been an expensive, time-consuming task. One way is to peel it in the spring with an ax, when the bark slips off most readily. There are also mechanical "drum" debarkers, and, as a last resort, bark can be shaved off by hand from cut pulpwood.

In recent years, sodium arsenite has been tried as a debarker, but it has some disadvantages. First, the tree must be girdled so the chemical is applied to the wood surface just inside the bark. Second, sodium arsenite is poisonous and dangerous to use.

Rees found that 2,4,5-T doesn't have these disadvantages. It works best when applied in a band about 12-18 inches high, about 4 feet above the ground and completely around the tree. At that time, the tree is growing rapidly and tissues under the bark are immature and most easily affected by the chemical. Trees can then be cut any time during the summer or fall.

The trees won't peel easily when frozen, but winter-cut treated trees are easy to peel after they've thawed out. Best results, Rees says, are when the treated trees are allowed to stand through the winter and are cut in spring before natural peeling season.

Early evidence indicates that the chemical doesn't kill all the tree roots. This is desirable, Rees explains, because with aspen, most reproduction is through root suckering.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 15, 1957

Immediate Release

TIMBER MARKET DEMAND BELOW NORMAL

For most Minnesota timber products, market demand this summer will be poor compared to recent years, according to Marvin Smith, extension forester at the University of Minnesota .

He refers to a recent report from J. C. Gannaway, official for the Minnesota Timber Producers association, who advises timber owners to get a contract from the mill or dealer for the timber before doing any cutting in the near future.

Smith and Gannaway say there has been a drop in demand for all grades of Minnesota lumber, and this trend is expected to continue. Lumber used in industrial construction has been in good demand, though, and should remain normal during the summer. Requests for popple lumber should also remain about the same.

Most paper mills have large inventories of pulpwood, resulting in a poor summer market for jack pine and rough balsam pulpwood. There will be a limited market for rough spruce pulpwood. Demand for rough popple is below normal now, but will probably improve after mid-summer.

Markets should take all available peeled spruce and balsam pulpwood. Demand for peeled jack pine and peeled popple will be low, but mills should be in the market for smaller amounts.

Hardwood bolts should have a favorable market. For veneer bolts and match bolts, purchasers should be asked for specifications and proper cutting seasons. There will be no market for match bolts before September.

Demand is fairly good for cedar poles 20-25 feet long. But market for jack pine poles will probably be poor until late summer or early fall. Jackpine post demand is poor now, but should improve later this summer. There is poor demand for cedar ties and summer-cut hardwood ties.

There are large inventories of piling, so buyers should be contacted before any is cut.

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B-1575-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 15, 1957

Immediate Release

KENYON YOUTH WINS SAFETY SLOGAN CONTEST

"Slack up before you crack up" is the winning entry in the 1957 Minnesota 4-H safety slogan contest.

The slogan was submitted by Donald Hjortaa, 18, Kenyon. As first prize, he will take an expense-paid trip to the National Safety Congress in Chicago in October, according to Leonard Harkness, state 4-H club leader, at the University of Minnesota. Hjortaa has been a 4-H club member and a safety project worker for 9 years. He has checked his home for fire and accident hazards, put reflectorized tape on machinery around his home farm and has conducted special safety meetings.

Second-place winner is John Risch, 18, Halloway, whose slogan was "Passengers on tractors are accident factors." His prize will be an expense-paid trip to the 1957 Minnesota state fair.

Donna Brabant, 15, Byron, took third place with her slogan "Careful drivers are survivors." She will receive a \$25 savings bond.

Winners from 27 Minnesota counties took part in the safety slogan contest, in observation of state and national Farm Safety Week, July 21-27.

A kick-off luncheon for the week will be held Thursday, July 18, in the Curtis hotel in Minneapolis.

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B-1577-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 15, 1957

Immediate Release

PICK BEANS AT RIGHT STAGE FOR FREEZING, CANNING

Success in freezing and canning green beans depends to a large extent on picking them at the proper time -- while they are young, tender, firm and crisp -- and processing them as soon as possible after harvesting.

Kentucky Wonder, Blue Lake Stringless, Giant Stringless Green Pod, Wade, Tendergreen and Topcrop are among varieties J. D. Winter and Shirley Trantabella of the University of Minnesota food processing laboratory recommend for freezing.

Scalding is a "must" to prevent loss of quality and to preserve the color and vitamin content of beans and other vegetables, according to tests in the University laboratory. The University freezing experts give these suggestions for preparing beans for freezing:

After washing, trimming and cutting the beans, place about a pound of vegetable in a wire basket or large cheesecloth bag and submerge in a kettle of boiling water. Allow one gallon of water for each pound of vegetable to be scalded at one time.

Keep the kettle covered during the scalding period and have the heat on high. Count scalding time from the moment the vegetable is put into boiling water. Scald beans $3\frac{1}{2}$ minutes. Chill in iced or cold water, drain, package and freeze immediately.

Like other low-acid foods, beans to be canned should be processed in the pressure canner, according to extension nutritionists at the University of Minnesota. Either the raw or hot pack method may be used. In either case, wash, trim and cut the beans into 1-inch pieces.

(more)

University extension nutritionists give these further directions:

Raw pack - Pack raw beans tightly to $\frac{1}{2}$ inch of top. Add $\frac{1}{2}$ teaspoon salt to pints, 1 teaspoon to quarts. Cover with boiling water, leaving $\frac{1}{2}$ inch space at top of jar. Adjust jar lids. Process in pressure canner at 10 pounds pressure, 20 minutes for pints, 25 minutes for quarts.

Hot pack - Cover beans with boiling water and boil 5 minutes. Pack hot beans loosely to $\frac{1}{2}$ inch of top. Add $\frac{1}{2}$ teaspoon salt to pints, 1 teaspoon to quarts. Cover with boiling hot cooking liquid, leaving $\frac{1}{2}$ inch space at top of jar. Adjust jar lids. Process in pressure canner at 10 pounds pressure, 20 minutes for pints, 25 minutes for quarts.

As soon as you remove jars from canner, complete seals if closures are not of the self-sealing type.

Further information on freezing and canning beans and other vegetables is given in Extension Folder 156, "Freezing Fruits and Vegetables," and in U. S. Department of Agriculture Home and Garden Bulletin No. 8, "Home Canning of Fruits and Vegetables." These publications are available from county extension offices or from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul 1.

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B-1578-jbn

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 18, 1957

Immediate Release

REORGANIZATION FOR MORE EFFICIENCY NEEDED IN MANY CREAMERIES

Many creameries in Minnesota would make larger net returns for themselves and dairy farmers if the plants were organized for more efficiency.

In most cases, this would mean increasing the volume of business in the plant.

In other places, it may be necessary to have fewer and larger plants to make economical operation possible, say Arvid C. Knudtson and E. Fred Koller, agricultural economists at the University of Minnesota.

They base these conclusions on a study of 138 Minnesota creameries. A full report of this survey is in "Manufacturing Costs in Minnesota Creameries," a recent bulletin from the University Agricultural Experiment Station.

An analysis of costs in 47 of the creameries showed that total manufacturing costs averaged 7.3 cents per pound butterfat or 5.9 cents per pound of butter. Labor accounted for 37 percent of the total manufacturing cost or 2.7 cents per pound of butterfat. Labor cost varied according to volume of output, kinds of products produced, wage rates and labor efficiency.

Labor cost per pound butterfat was highest in plants with 150,000 to 300,000 pounds annual volume--the "low volume" group. These plants had a 3.49 cents labor cost per pound, compared to 2.26 cents per pound butterfat in the largest plants.

Total cost of processing butterfat ranged from 6.11 cents per pound in plants with a 600,000 pound annual volume to 9.76 cents in plants with 150,000 to 300,000 pounds volume.

Knudtson and Koller found that, in most cases, creamery costs could be reduced by more efficiency in all phases of operation. Plants also need to give more attention to the selection and training of managers and other personnel and provide more incentives for this improvement.

Labor-saving devices and better plant layouts would reduce labor costs in many plants. Manufacturing and packaging supply costs can be reduced by careful purchasing, the economists found.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
July 15, 1957

To all counties
For use week of
July 22

FALLS LEADING
SOURCE OF HOME
ACCIDENTS

A slip of the foot can cost a farm family more than a slip in the price of agricultural commodities.

Home Agent _____ reports that falls are the leading source of all injuries to residents of rural America and that they account for 25 percent of all injuries to farm people.

Injuries from all mishaps, including falls, are expensive. In addition to medical costs and lost time from work is the expense of hired labor, sometimes necessary if the accident occurs at a critical work period on the farm.

Falls killed about 350 Minnesota residents last year. According to Glenn Prickett, extension safety specialist at the University of Minnesota, falls are still the number one cause of fatal accidents in Minnesota homes, especially among people 65 and older. Last year they caused almost half of the accidental deaths in Minnesota homes and a fourth of the accidental deaths among farm residents.

The University safety specialist points out that good housekeeping both indoors and outside can substantially reduce tripping hazards. Around the farmyard, pick up loose bailing wire, boards and scrap metal, and check ladders for safety.

In the home, stairways and steps are danger points for falls. Keep stairways clear of mops, brooms, toys and boxes. Many accidents on stairs could be prevented by lighting steps adequately and installing solid protective handrails low enough for children. A two-way switch at top and bottom of stairs is a good safety measure. Painting the bottom basement step white is another protection against falls.

In the kitchen, protect others and yourself by cleaning up immediately spilled water, grease or foods. A safe step stool will eliminate another kitchen danger -- that of climbing chairs, boxes and other makeshifts when reaching for high shelves.

Loose scatter rugs and highly waxed floors are other invitations to falls. Material is available for skidproofing rugs and non-skid wax may prevent many a tumble. Prickett urges families to make a special effort to remove the hazards of falls during National Farm Safety Week (July 21-27) as well as during every other week in the year.

-jbn-

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
July 15, 1957

To all counties
For use week of
July 22 or later

GIVE GROWING PIGS
PLENTY OF WATER
IN HOT WEATHER

Plenty of water can almost be "growth insurance" for pigs in hot weather, says County Agent _____.

He points out that H. G. Zavoral, extension livestock specialist at the University of Minnesota, lists two important needs that hogs have for water in summer.

First, they need plenty to drink. It takes one automatic watering cup for each 20 pigs. Figured another way, 10 pigs need 25 gallons of water daily in summer.

Second, it's a good idea to have a wallow or sprinkler system so the pigs can cool off on especially hot days. A growing hog, when eating well, will gain up to 2 pounds daily. In hot weather, though, he may eat so little that he gains very slowly or not at all.

That means anything you can do to keep the hog cool will help insure the best possible gains.

A sprinkler system is one "hog-cooling" method that works well. You can put a plain shower-type or sprinkler nozzle on a garden hose and run it in one corner of the hog house. Then you can turn it on whenever the temperature goes above 85 degrees, and you'll find the hogs will scramble to get under the cooling spray.

A sanitary hog wallow is also effective. Up to 50 hogs can use 100 square feet of wallow, if there is shade or shelter nearby. It's also possible to construct portable wallows for hogs on pasture. They can be built on skids so that they can be pulled from one place to another as necessary.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
July 15, 1957

To all counties
For use week of
July 22 or later

FLY CONTROL AIDS
BEEF PROFITS

Horn flies and other insects, if uncontrolled, can take a big chunk out of beef profits.

But fortunately, there are ways to control many of these pests on beef cattle, says R. E. Jacobs, extension livestock specialist at the University of Minnesota.

The best device to use is a treadle sprayer that directs insecticide spray at all parts of the animal's body. Such a device needs to be placed where the animal must walk through it to get to water. That way, the cattle are certain to be sprayed daily.

In summer, 1955, experiments at the University, beef cattle on pasture gained 54 more pounds per animal during a 91-day pasture period when a treadle sprayer was used, compared to no fly control. Pyrethrin compounds were the insecticides used in the treadle sprayers.

Backrubbers are also, effective, Jacobs says, but only against horn flies and other insects found on backs of cattle.

You can make a cable-type backrubber with little difficulty. Hang a small chain or heavy barbwire cable between two heavy posts 12 to 16 feet apart, with the lowest point of the cable about 18 inches above the ground.

Wrap the cable with several layers of burlap and soak the burlap with an insecticide such as methoxychlor and toxaphene mixed with fuel oil. Place the backrubber near the water supply.

There is more information in Extension Folder 192 "Fly Control for Livestock." You can get a copy from your county agent or by writing to the Agricultural Bulletin Room, University of Minnesota, St. Paul 1. # # # # # #

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
July 15, 1957

To all counties

For use week of
July 22 or after

ATT: CLUB AGENTS

4-H'ERS TO TAKE
PART IN STATE
FUN FESTIVAL

_____ different numbers from the district 4-H Share the Fun
(No. - write out)
festival will be included in the state festival during the Minnesota State Fair,
County Agent _____ announces.

Four-H members from this district chosen to participate in the state event
and the numbers they will present are: (list names, addresses and the type of
talent number they will present. This information is given in a letter to you
from Earl Bergerud, district 4-H club leader.) These young people were selected
on the basis of their performance at the district event at _____.

The state 4-H Share the Fun festival has been scheduled for Wednesday
evening, August 28, as one of the 4-H events during the Minnesota State Fair open
to the public. The program will feature 18 different numbers representing the
best talent selected from the four district festivals held throughout the state this
summer. The variety of entertainment will include folk dancing, oboe, cornet,
piano and vocal solos, vocal and piano duets and quartets and a magician's act.

The University of Minnesota Agricultural Extension Service and Cargill,
Inc., are sponsoring the 4-H Share the Fun program.

-jbn-

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
July 15, 1957

To all counties
For use week of
July 22 or later

A U. of M. Ag and Home Research Story

WINTER-HARDY ALFALFA
BEST FOR MINNESOTA

It takes proper management and winter-hardy varieties to get an alfalfa crop that will live through Minnesota's rugged winters, says County Agent _____.

Varieties to use are Ranger, Vernal, Narragansett and Ladak--all winter hardy--according to Laddie J. Elling, University of Minnesota agronomist.

Second, none of these varieties can be clipped in the fall and be expected to last through the winter every year.

Recent field trials at the University's Ros emount Agricultural Experiment Station bear out these conclusions, Elling explains. Last winter was one of the roughest in recent years and put all alfalfa through a severe test.

On the plots where the alfalfa was not clipped in the fall, Vernal winterkilled only 12 percent, Narragansett 16 percent and Ranger 18 percent. But DuPuits and Lahonton, both less winter-hardy varieties, winterkilled 53 and 75 percent, respectively.

Where alfalfa was clipped in September and again in November--an unrecommended practice--only 10 percent of the Ranger and 42 percent of the Vernal plants survived until this spring.

All alfalfa varieties in these tests were seeded in spring, 1956.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 15, 1937

Special to Wilcox
County Agent Introduction

Proper fuel storage is an axiom of farm safety. That point is being discussed here by Harold Karli, right Winona county agent, and Jerry Richardson, a assistant agricultural agent in Winona county. Karli is explaining to be safe, a gasoline tank must be supported on a metal frame, painted red and must be a safe distance from other buildings, as is the one pictured here.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 17, 1957

SPECIAL TO DAIRY JOURNALS
FOR IMMEDIATE USE

DAIRY PRODUCTS INSTITUTE SCHEDULED FOR SEPT. 17-19.

New processing and handling techniques, the economic outlook and quality control in all phases of the dairy industry will be featured during the annual Dairy Products Institute, scheduled for Sept. 17, 18 and 19 on the St. Paul campus of the University of Minnesota.

About 600 persons will hear dairy scientists report on current problems and research in butter, ice cream, concentrated and dry milk manufacturing, market milk and cheese.

Welcoming the opening general session Sept. 17 will be C. L. Cole, head of the University's dairy department. Current marketing developments will be discussed by E. Fred Koller, agricultural economist at the University. P. R. Ellsworth, Milk Industry Foundation, Washington, D. C., will talk on "Costs, Carelessness and Collisions" and F. Grande, staff member in the University's laboratory of physiological hygiene, will discuss "Fats and Coronary Heart Disease."

Speakers at the butter manufacturing session Sept. 17 will include Ralph Turnbull, Cherry-Burrell Corporation, St. Paul; S. T. Coulter, University dairy scientist; J. J. Jezeski, University dairy bacteriologist; L. C. Thomsen, dairy scientist from the University of Wisconsin and J. H. Gholson, extension dairy products specialist at the University of Minnesota. Turnbull, Coulter and Jezeski will discuss "Hot vs. Cold Separation of Milk" and Thomsen will outline newer methods of handling butter. Gholson will talk on determination of total solids in skimmilk and buttermilk.

Topics at the Sept. 17 ice cream session will include food colors, economics of ice cream production, soft and hardened ice cream and ice cream stabilizers. Speakers will be L. A. Richardson, R. J. Anderson, and E. L. Thomas, University dairy scientists, and A. C. Knudtson, University agricultural economist.

Ice cream manufacturers from Minnesota and nearby states will submit entries for the vanilla ice cream educational exhibit to be displayed Sept. 17 during the Institute. All entries must be sent in time to arrive at the University dairy department on or before Sept. 11. Before the event is held, these entries will be judged and analyzed for fat, total solids and bacterial content.

At the general session Sept. 18, speakers will include Gordon Sprague, Land O'Lakes Creameries, Inc.; Harold Macy, dean of the University Institute of Agriculture and W. Bruce Silcox, U. S. Department of Agriculture economist.

Quality control in cottage cheese and raw milk quality control for cheesemaking will be reviewed during the cheese manufacturing session Sept. 18. Speakers for that session will be L. D. Peckham, U. S. Public Health Service, Chicago, J. W. Sherbon, Minnesota dairy research worker and Evert Wallenfeldt, dairy specialist from the University of Wisconsin.

A cottage cheese grading and flavor clinic will be held at the end of the cheese manufacturing session. Cottage cheese manufacturers are invited to bring 4 containers of stock cottage cheese for the exhibit. Entries will be judged before the meeting and again by persons attending on Sept. 18.

A panel of experts will give careful attention to bacteriological problems in dry milk during the concentrated and dry milk session. Panel members will include J. C. Olson, Jr., J. J. Jezeski and S. T. Coulter, Minnesota dairy scientists and Burdet Heinemann, Producers Creamery company, Springfield, Mo. and R. J. Remaley, American Dry Milk Institute, Chicago.

At the market milk session, feature topics will include merchandising market milk, sanitary standards for market milk equipment, physical defects of milk and cream and a "flavor" clinic. Speakers will be K. L. Vail, Rochester, Minn., Dairy; C. A. Abele, Diversey Corporation, Chicago and H. D. McAuliffe, Bowman Dairy company, Chicago.

A combined dinner meeting for the Minnesota Dairy Technology Society and Dairy Products Institute will be held at Worwa's Cafe in Minneapolis at 6:30 p. m., Sept. 18.

Quality control on the dairy farm will be the general subject of the Sept. 19 fieldmen's conference. Speakers slated for that meeting are S. A. Engene, Minnesota agricultural economist; E. L. Thomas and V. S. Packard, dairy scientists; C. A. Abele; B. B. Kiser, Johnson and Johnson company, Chicago; and J. C. Olson, Jr. Afternoon speakers at the fieldmen's conference are Olson, Jezeski, L. C. Peckham and W. C. Lawton, Director, Quality Control Laboratory, St. Paul

H. L. Thomasson, executive secretary of the International Association of Milk and Food Sanitarians, Shelbyville, Ind., will address an evening banquet held by the Minnesota Milk Sanitarians association.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 17, 1957

Immediate Release

INSTITUTE OF AGRICULTURE WINS INFORMATION AWARDS

FORT COLLINS, COLO.--The Institute of Agriculture of the University of Minnesota has been awarded four "excellent" and four "good" ratings for its agricultural and home economics information work during the past year.

The awards were made at the annual meeting of the American Association of Agricultural College Editors at Colorado State university this week. Competition was with 50 other Land Grant universities.

For each division, there were a maximum of five excellent and five good ratings for the country as a whole. Excellent ratings were given to Minnesota for the following:

1. "University Farm and Home News," a news service prepared by Mrs. Josephine Nelson, assistant extension editor, and Phil Tichenor, information specialist. This service includes news releases to newspapers, radio stations and trade papers plus the weekly columns, "Our Land" and "Home Garden Tips" which appear in about 100 Minnesota newspapers.

2. "Fruits for the North," a 20-minute movie produced by Gerald R. McKay, extension visual aids specialist, and telling about the development of new fruit varieties for Minnesota by the University's horticulture department.

3. "Let's Cut Poultry Feed Waste," a radio transcription provided to over 20 Minnesota stations. This transcription featured the late Thomas Canfield, professor of poultry husbandry, and was made only a short time before his death last spring. Canfield was interviewed by Lester Swanson, assistant extension information specialist.

(more)

Page 2, Institute of Agriculture Wins Information Awards

4. "Reaching Rural People," a monthly information training letter prepared by the Information Service for county extension workers.

Good ratings were given the following:

1. "Minnesota Farm and Home Science," a quarterly magazine reporting on the results of University research in agriculture, forestry, home economics and veterinary medicine. It is edited by Earl K. Brigham, agricultural bulletin editor.

2. TV film, "Transplanting Iris," featuring Richard Stadtherr, horticulturist, and produced by Raymond Wolf, extension information specialist, and Gerald R. McKay.

3. TV program script, "Making Maple Syrup," featuring extension foresters, Parker Anderson and Marvin Smith, and produced and emceed by Raymond Wolf.

4. "Fruit Varieties Developed at the University of Minnesota Fruit Breeding Farm," Agricultural Experiment Station Bulletin 441, by W. H. Alderman, retired head of the University horticulture department, A. N. Wilcox, horticulture professor and T. S. Weir, assistant supervisor of the University Fruit Breeding Farm. The bulletin was edited by Maxine Larson, editorial assistant.

The Institute's Information Service, is under the direction of Harold B. Swanson, editor.

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B-1580-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 17, 1957

For release at noon,
Thursday, July 18

SWEETCLOVER BREEDING PROJECT UNDERWAY

CROOKSTON--Minnesota agricultural scientists have launched a research program aimed at developing sweetclover varieties that are resistant to sweetclover weevil and aphid, farmers were told here this morning.

The project is underway at the University of Minnesota's Northwest School and Experiment station here and on nearby farms. Speaking at the station's annual Field Day, F. G. Holdaway, University entomologist, said the research is being conducted under the direction of W. M. Myers, head of the University's agronomy department, entomologists, and staff members at the Crookston station.

This spring, Holdaway said, some 70 different lines of sweetclover were seeded on experimental fields. From year to year, plant breeders and entomologists will select lines that best withstand attacks by weevils and aphids. These selected lines can then be used in developing new varieties.

Sweetclover--an important green manure crop in this area--is sometimes 50 percent killed by sweetclover weevils and aphids. Weevils have been a problem for years on sweetclover in the Red River Valley, but aphids have shown up only recently.

Entomologists have found that both pests can be controlled to some extent by chemical spraying, but many farmers don't find that procedure economical for a green manure crop.

During recent years, Holdaway said, Entomologist Austin Haws from the University has compared 11 sweet clover varieties in preliminary field studies here and found that the varieties varied widely in their susceptibility to weevils and aphids. Unfortunately, some of the newer improved varieties showed less resistance to the insects than have common yellow and white sweetclover.

Now, entomologists and agronomists figure it may be possible to produce varieties that are even more resistant to the insects by selecting individual plants within varieties.

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B-1581-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 17, 1957

For Release at 12 Noon
Friday, July 19

ACCIDENT VICTIMS TELL THEIR STORIES AT LUNCHEON

An accident around the farm buildings, in the fields or in the home does more than inflict pain and misery; it also can spell serious financial hardship.

That was the conclusion of three accident victims who told of their mishaps--and how they could have been avoided--during the Minnesota Farm Safety Week kick-off luncheon today in the Curtis Hotel in Minneapolis. Farm Safety week is July 21-27.

Ernest Damann, farmer near Farmington, told how he suffered a broken leg, had most of his clothing ripped off and was held fast for two hours when he became entangled in an unguarded power-takeoff shaft last winter.

"The hospital bill was more than \$400," he said. "And worse, I wasn't able to do much work around the farm this summer." He is still walking on crutches.

"That accident could have been avoided," Damann stated. "If the shield for the shaft had been on the machine, it never would have happened." He urged all farmers to keep shields in place when using power machinery.

Glen Fishbeck, Minneapolis, told how he was blinded in a hunting accident near Cokato, Minn., last fall. A pheasant flew up between him and his hunting partner, who shot at the bird, but also hit Fishbeck who was only a short distance away.

Fishbeck had a big hospital bill and had to make a complete readjustment due to losing his sight. Fortunately, the same firm for whom he had been working before the accident has continued to employ him since.

Mrs. Boyd Wood, Heron Lake, related how she severely cut her hand with a butcher knife while preparing food for a family picnic this summer. "I was almost done cutting when the knife slipped," she said. "The cut required extensive surgical and medical treatment." More caution with the knife would have prevented this mishap, she added.

The Merit Award for service to farm safety was presented to Jesse Markeson, La Salle, Minn., implement dealer, during the luncheon. The award comes from the National Safety council. Markeson is also a member and past president of the Watonwan county safety council.

Donald Hjortaas, 18, Kenyon, received a certificate award for winning first place in the Minnesota 4-H safety slogan contest. He will also receive an expense-paid trip to the National Safety Congress in Chicago, October 20-25. ###B-1582-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 18, 1957

SPECIAL to Twin City Outlets

RETIRED UNIVERSITY PROFESSOR RECEIVES GRANT FOR RESEARCH

Alexander A. Granovsky, professor emeritus (retired) of entomology at the University of Minnesota, has received a \$7000 grant from the National Science Foundation for research on aphids in Minnesota and nearby states.

Granovsky, an authority on taxonomy of aphids, retired from the University staff July 1, 1956. He will conduct this work as an independent investigator in cooperation with the department of entomology and economic zoology and with the University agricultural experiment station.

Aphids are minute, mostly microscopic insects that cause important damage to farm crops, forest trees, ornaments and wild vegetation. They draw sap from these plants while feeding and transmit many kinds of virus diseases to plants.

Granovsky's research will be concerned with the migratory habits of aphids and their preference for certain plants and areas in the Upper Midwest.

Minnesota and surrounding states are rich in diverse vegetational cover and offer good opportunity for aphid studies, Granovsky says.

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-pjt-

July 19, 1957

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota

Timely Tips for The Farmer, issue of August 3

Hogs gain faster than any other class of livestock. Therefore, they need a good mineral supplement for bone-building and general nutrition.

--H. G. Zaveral

All wood in constant contact with the soil is subject to rot, although the heartwood of some species such as cedar, white oak, tamarac, juniper and redwood will resist decay longer periods than others. But for most woods used for outdoor furnishings around the farm, it's wise to treat them with pentachlorophenol, a wood preservative.

--Marvin Smith

Steer calves or light-weight yearlings that were carried through winter on high roughage rations, even if they are on good grass-legume mixtures, need to be put on a full feed of grain now. Take them off pasture entirely by Sept. 15 and finish them in dry lot for 50-60 days.

--R. E. Jacobs

Know how fast your cows milk out, and leave the milker on accordingly. A recent Nebraska study showed that some cows milked out up to 4 or 5 times as fast as did others.

--Ralph Wayne

If posts, or even boards, in the yard fence are reached by the lawn sprinkler, they will decay more rapidly than other parts of the fence.

--J. R. Meitzel

Be sure your tractor, truck, trailers and other machinery are well-lighted when drawn in the dark on the highway. In the daytime,

Timely Tips for The Farmer, issues of August 3

use cane fishing poles with red handkerchieves to let motorists coming over hills know you are on the highway with slow-moving equipment.

--Glenn Prickett

This is a good time to "take stock" of the new gullies cut by intense rains. Particularly, check the small grain fields. As soon as the field is harvested, smooth the gully area into a wide shallow waterway, and apply needed lime and fertilizer. Then if you seed the area after September 1, use a bushel of rye and 8 pounds of Kentucky bluegrass per acre. Seed legumes next spring.

--Roger Harris

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota

Timely Tips for The Farmer, issue of July 20

Electric debeaking is one of the most dependable cures available against cannibalism in chickens. With this method, it's necessary to remove about half of the upper beak. The debeaking won't upset the birds if they're handled carefully in the process.

--Cora Cooke

Used crankcase oil has little or no value as a wood preservative. It can however, when free of sludge, be used as a solvent for preparing a "penta" treating solution.

--John R. Neetzel

Test your pasture soil before renovating this summer. In general, phosphate, potash, and lime are the necessary nutrients for pastures, but you may also need some nitrogen with alfalfa-brome or other grass mixtures.

--C. A. Simkins

After recent floods and heavy rains in western and southwestern Minnesota, it was noticed that land planted to corn without disking or dragging after plowing took in more rainwater, resulting in less runoff or soil loss than with conventional methods of planting corn.

--Curtis Overdahl and
George Blake

It may be necessary to spray second crop hay for grasshoppers. If they aren't serious enough to spray the entire field, you can leave a strip of hay and spray that area two or three days after removing the cutting. Aldrin can be used up to 15 days before hay is cut or pastured and heptachlor can be applied up to 7 days before cutting or pasturing.

--L. K. Cutkomp

A spark from the ignition or even a hot manifold can ignite fuels in engines. So always shut off the engine and let it cool off before refueling. This applies to tractors and also to auxiliary motors on combines and balers.

--Glenn Prickett

Don't let mange or lice rub out your hog profits. Spray the hogs with one of the new remedies, such as benzene hexachloride, lindane, or chlordane. Follow the directions on the container.

--H. G. Zaveral

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 22, 1957

SPECIAL TO:
Bob Johnson
Minnesota Daily

INTERNATIONAL STUDENTS SERVE PICNIC AT ST. PAUL CAMPUS

Foreign students on the St. Paul campus of the University of Minnesota will serve an American-style picnic supper Friday evening, July 26.

The picnic is sponsored by the International Students Committee of the St. Paul campus union.

Old time dancing and other entertainment will follow the supper.

Tickets for the event are one dollar each.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 22, 1957

Special to Goodhue county

(with mat)

NEW HOME AGENT
HERE SEPT. 3

Four years of teaching home economics in Minnesota schools have prepared Lois Bleichwehl of Albert Lea for the position of home agent in Goodhue county. Miss Bleichwehl will join the county extension staff on September 3.

For the past two years she has taught home economics classes in the Hibbing high school. From 1953 to 1955 she taught home economics in Mapleton. In both schools she organized a chapter of the Future Homemakers of America.

Miss Bleichwehl received her B.S. degree with a major in home economics from Mankato State college in 1953. She has attended summer sessions at Iowa State college and Colorado State university.

During the month of August she will serve as assistant home agent in Dakota county, where she will receive on-the-job training.

-jbn-

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
July 22, 1957

To all counties
For use week of
July 29 or later

FARM FILLERS

For late fall sheep pastures, you can sow rye in early August. This will provide good pasture through September and well into October, says R. E. Jacobs, extension livestock specialist at the University of Minnesota.

* * * * *

There are four ways to help dry grain that was too wet when put in the bin, say plant pathologists and agricultural engineers at the University of Minnesota. You can clean it to remove all foreign material, move it from one bin to another on a dry day, use natural ventilation, or dry it with a power drier using heated air.

* * * * *

In 1956 fertilizer studies at the University's Rosemount Agricultural Experiment station, fertilizer aided legume stands, but whether it was banded or broadcast made no difference. Alfalfa seedlings were larger where oats was taken off for forage, compared to harvesting it as grain.

* * * * *

The number of farms in Minnesota has been decreasing steadily since 1946, and the greatest decrease--2.3 percent--occurred last year, according to Harold Pederson and Luther Pickrel, extension agricultural economists at the University of Minnesota.

* * * * *

Forestry researchers at the University of Minnesota have found that pulpwood can be "debarked" chemically with 2,4,5-T. The chemical is applied in a band about 12-18 inches high, about 4 feet above the ground and completely around the tree. Later on, the tree can be cut and peeled easily.

* * * * *

Grain sorghum, grown for livestock feed by an increasing number of farmers in dry states, sends roots more than 7 feet deep to get water, if necessary.

* * * * *

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minn.

July 22, 1957

Special to Scott County

(With Mat)

NEW HOME AGENT
IS FROM ILLINOIS

Mrs. Barbara Carson, Bartlett, Illinois, will assume the duties of home agent for Scott county on August 1.

Since July 1 she has been serving as assistant home agent in Dakota county, receiving training in extension methods.

Mrs. Carson received a B.S. degree in home economics education from Northern Illinois State college, De Kalb, Ill. During the year 1955-56 she taught vocational homemaking classes in Shannon, Ill., and was local and district adviser of the Future Homemakers of America organization.

For 11 years Mrs. Carson was active in 4-H work in her home county. She grew up on a dairy and grain farm in DuPage county, Illinois.

-jbn-

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
July 22 1957

To all counties

For use week of
July 29 or after

ATT: CLUB AGENTS

4-H KEY AWARDS
TO BE GIVEN
FOR LEADERSHIP

To encourage leadership in the 4-H program, 4-H key awards will be presented again this year to outstanding older 4-H members who have been active in their local clubs a number of years, Club (County) Agent _____ announces.

Purpose of the key award program is to encourage growth of 4-H members in their projects, broaden their experiences and develop their leadership abilities and citizenship responsibilities. It is also a means of giving recognition to club members who have provided leadership in their local clubs and in their county.

For the fifth year the program is being sponsored by the University of Minnesota Agricultural Extension Service and the Cities Service Oil Company.

In the four years the program has been in effect, more than 2,000 4-H'ers in Minnesota have received the award, which consists of a gold key on a necklace for girls and a key mounted on a gold tie clasp for boys. In _____ county _____ (no.) club members have earned the award.

A special luncheon to honor the more than 2,000 Minnesota key award winners will be given this year during the Minnesota State Fair by the Cities Service Oil Company. The luncheon is scheduled for Tuesday noon, August 27, in the main ballroom of Coffman Memorial Union on the Minneapolis Campus of the University of Minnesota.

To be eligible for consideration for this year's key award, a 4-H member must have passed his 16th birthday by January 1, completed three years of active junior leadership and five years of 4-H club work. A special point system assigns a certain number of points for project work, demonstrating, holding office, exhibiting and other 4-H activities.

Four-H members interested in the key award should get a copy of the application form from the _____ county extension office.

University Farm and Home News
Institute of Agriculture
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St. Paul 1 Minnesota
July 22, 1957

To all counties

ATT: HOME AGENTS

For use week of
July 29 or after

MANY WAYS OF
MAKING IRONING
JOB EASIER

Ironing is considered one of the most tiring household tasks, yet there are many ways homemakers can speed up the job, ease the strain on back and feet and turn out a better looking product.

Home Agent _____ says _____ county homemakers can save time and energy by following these tips from time and motion study specialists:

- Fold carefully and put away without ironing as many items as possible -- such as towels, sheets and seersucker garments.
- Have the ironing surface at a comfortable height -- high enough so you will maintain an erect posture while reaching the full width of the board.
- Learn to sit while ironing. Use an adjustable board or a high stool with a back and a foot rest.
- Assemble everything in a convenient place.
- Have good light.
- Avoid unnecessary use of energy by pressing down on the iron. The heat does the ironing, not the pressure.
- Use the thermostat to set the heat for the type of fiber to be ironed. Many fabrics are discolored and some destroyed by too high temperatures.
- Use both hands. Use the left hand to smooth and spread out the garment as the right hand irons. Shift the iron from the right to the left hand to use the iron effectively.
- Iron acetates, rayons, silks, and all dark fabrics on the wrong side. If any of these must be ironed on the right side, use a soft, clean press cloth.
- Iron small areas of the garments first, larger areas last, ironing each area dry before starting another. Iron around buttons, not over them. Heavy places such as collars, cuffs, pockets, and hems should be ironed first on the wrong side and then on the right.
- Allow articles to air awhile before storing so they are well dried. -jbn-

University Farm and Home News
Institute of Agriculture
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July 22 1957

To all counties
For use week of
July 29 or later

NEW GRADING LAW
AIDS POULTRYMAN

The new egg grading law in Minnesota is a help to both egg producers and consumers, say County Agent _____ and Home Agent _____.

It protects the farmer who sells good eggs by making sure he is paid on the basis of "quality delivered," according to Cora Cooke, extension poultry specialist at the University of Minnesota. The law also assures the producer that the eggs will receive good care after they leave his hands.

For the consumer, the law assures good quality eggs sold under proper conditions.

Important provisions of the law are that all eggs bought for resale must be bought on grade, that all eggs sold at retail must be sold on grade and that all eggs must be kept at temperatures no higher than 60 degrees, both by the wholesale buyer and in the retail store.

Grades are A, B and C. At retail markets grade A eggs are graded as large, medium, small and jumbo.

Miss Cooke points out that all eggs sold in Minnesota are equally edible; selling inedible eggs is unlawful. Grade means quality. Grade A eggs are best for breakfast or for freezing and grade B eggs are recommended for baking.

Most grade C eggs in Minnesota are used in the processing industry and aren't sold in retail stores.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
July 22 1957

To all counties
For use week of
July 29 or later

A U. of M. Ag. and Home Research Story

PHOSPHATE INCREASES
ALFALFA YIELDS

In many areas of Minnesota--particularly in west central counties--phosphorus is the plant nutrient most needed to increase alfalfa growth, according to County Agent _____.

That conclusion is based on field tests underway at the West Central Experiment Station, Morris. The tests are conducted by A. C. Caldwell, University of Minnesota soils scientist, in cooperation with Roy Thompson, Morris station agronomist.

Caldwell and Thompson are comparing nitrogen, phosphate and potash alone and in different combinations on alfalfa fields. In first cuttings this summer, plots that received 80 pounds of phosphate per acre, but no other nutrient, averaged 1,434 pounds of forage per acre more than unfertilized plots.

That was higher than for any other fertilizer treatment used--even higher than applying 20 pounds nitrogen, 180 pounds of phosphate and 80 pounds of potash per acre on the same plot.

Adding nitrogen or potash alone in these tests actually resulted in reduced yields for the first cutting--meaning that such treatments obviously weren't profitable on this soil. Where just 20 pounds of nitrogen was applied, first cutting yield averaged 700 pounds less than unfertilized plots. Forty pounds of potash alone resulted in 666 pounds less than where no fertilizer was added.

The first hay cutting was taken on June 18. Hay weights were based on 72.3 percent moisture.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
July 22 1957

To all counties

For use week of
July 29 or later

GRASSES CAN MAKE
GOOD PASTURES

With plenty of fertilizer and good management, permanent grass can make topnotch pastures for cattle or sheep.

This statement comes from Charles Simkins, extension soils specialist, and Ermond Hartmans, extension farm management specialist at the University of Minnesota.

To prove it, they are conducting pasture fertilizer demonstrations around the state. In last year's trials, they found that fertilizing grass pastures with 100 pounds of nitrogen, 60 pounds of phosphate and 60 pounds of potash resulted in 4,333 pounds of milk per acre from the dairy cattle that grazed the area.

Cows on unfertilized but otherwise similar pastures produced only 2,000 pounds milk per acre. These cows received no feed other than pasture. Also, there were 223 "Cow-days per acre" on fertilized pastures, compared to only 101 on unfertilized areas.

Figuring milk at local prices, the increase in milk yield resulted in a net return over fertilizer cost of \$66 per acre.

Fertilizing the grass pastures resulted both in more forage and more feed value. The protein content of the non-fertilized area averaged 14.3 percent, compared to 21.1 percent on the fertilized pasture.

This year similar tests are being conducted at the North Central Experiment Station, Grand Rapids, and on individual farms in Carlton, Itasca, St. Louis, Aitkin, Scott, Brown, Winona and Mille Lacs counties.

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July 23, 1957

Mr. Stephen B. O'Dea, Chief,
Foreign Visitors Desk
Press Service
United States Information Agency
Washington, D. C.

Dear Mr. O'Dea:

Harold Swanson asked me to answer your request for information on
Ing. Otto Gonzales, who recently visited Minnesota.

Enclosed is a short article on some of his experiences here. The
reason that we didn't get more comments from him was that he had extreme
difficulty with English and had no interpreter.

I hope that the information we did get will be of some help to you.

Sincerely,

Information Specialist

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 23, 1957

SPECIAL TO U.S. INFORMATION AGENCY

VENEZUELAN VISITOR VIEWS MINNESOTA FIELD CROPS EQUIPMENT

A unique device used to fill storage bins with potatoes caught the eye of a Venezuelan agricultural official on a recent visit to Minnesota.

Ing. Otto Gonzales, section chief of the experimental farm at the Central Agricultural Station in Aragua, Venezuela, said a bin-filler under test by University of Minnesota agricultural engineers might have some possible uses in his homeland, when the device is perfected.

"That machine would be helpful for Venezuelan potato farmers," he stated. "Potatoes are our fifth most important crop."

Gonzales saw the machine on a farm in Minnesota's Red River Valley. This piece of equipment has a retractible elevator with a variable-length vertical section that extends into a basement potato bin. This makes it possible to carefully lower potatoes into the bin without damage to the tubers and with very little hand labor.

At the University of Minnesota's St. Paul campus, Gonzales viewed equipment used for planting, cultivating and harvesting soybeans.

He was particularly interested in different soybean planting techniques. One system he saw was "alternate double rows," which means planting two rows close together with a wider space between each pair of rows.

"American agricultural scientists have been very helpful to me—in Minnesota as well as in other parts of the country," Gonzales said. "I have seen many things which may be helpful to farmers in Venezuela."

Gonzales visited Minnesota from July 15-19. He was shown experimental farm equipment by H. J. Schwantes, head of the University's agricultural engineering department.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 23, 1957

UNIVERSITY LISTS
SHORT COURSES
FOR LATE SUMMER

Special to Weeklies
for immediate release

Farm families and other agricultural workers in Minnesota and from around the nation will take part in a series of events scheduled by the University of Minnesota during the next 3 months, according to J. O. Christianson, director of agricultural short courses.

Some 400 Minnesota teachers will attend the home economics teachers conference August 19-23. Theme for the conference will be "Implementing Program Planning in Home Economics Teaching." Topics will include "Challenges of everyday life in homemaking," "What homemaking courses tell the visitor," "How we make use of new products," and "Meeting diversity in homemaking."

Livestock and feed men from around the nation will attend the Animal Nutrition Short Course Sept. 9 and 10. This event will summarize the latest research in livestock and poultry feeding.

Up-to-date information on all phases of dairy manufacturing and marketing--including the long range outlook--will be featured during the Dairy Products Institute Sept. 17-19. This event will include an ice cream and cottage cheese exhibit and will be attended by dairy manufacturers and research workers from around Minnesota and nearby states.

Beef feeding trials, the market outlook, pasture experiments and bloat research will highlight the Beef Cattle Grassland Field Day at the University's Rosemount Agricultural Experiment Station Sept. 19.

Topics at Swine Feeders Day Sept. 27 will include effect of protein levels on sow performance, influence of source of protein on growing and fattening pigs and additional information on parakeratosis in swine. Other recent research in swine feeding will also be discussed.

A farm income tax short course has been scheduled for Oct. 7-9, in cooperation with state and federal income tax officials.

For more information, contact the director of agricultural short course, Institute of Agriculture, University of Minnesota, St. Paul 1.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 23, 1957

Immediate Release

ANIMAL NUTRITION SHORT COURSE SCHEDULED FOR SEPTEMBER

The annual animal nutrition short course is scheduled for Sept. 9 and 10 on the University of Minnesota St. Paul campus, according to J. O. Christianson, director of agricultural short courses.

Elton Johnson, head of the University department of poultry husbandry, is program chairman for the event.

Livestock and poultry feeding scientists from the University, other Midwest states and from Canada will discuss up-to-date nutrition research at the short course.

Sessions on swine and ruminant nutrition will be held Sept. 9, along with a panel on thyroprotein feeding.

A poultry nutrition meeting will be held Sept. 10 during the event, which will conclude that day with round table discussion groups on poultry, swine and beef and dairy cattle feeding.

For more information, contact the Director of agricultural short courses, Institute of Agriculture, University of Minnesota, St. Paul 1.

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B-1583-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 23, 1957

Immediate Release

FOUR FROM MINNESOTA TO ATTEND LEADERSHIP CAMP

Four Minnesota youths will attend the American Youth Foundation Leadership Training camp at Camp Miniwanca, Shelby, Michigan, in August.

Camp scholarships are presented annually by the Danforth foundation and Ralston Purina company, St. Louis, Missouri, to a 4-H club girl and boy in the state and a home economics junior and freshman at the University of Minnesota.

Representing Minnesota 4-H'ers will be Patricia Angell, 18, Pipestone and Don Kroneman, 19, Fergus Falls, selected on the basis of leadership and a good all-round record in 4-H work. Rachel Munson, 20, Atwater, and Rona Robbins, 18, Moorhead, were chosen for outstanding leadership and scholarship to represent the University at the leadership training camp. The girls will attend camp July 29-August 11, and Kroneman will be at the boys' camp August 12-25.

Miss Angell, a sophomore at Hamline university, has been secretary and treasurer of her local 4-H club, has received the 4-H key award, and twice went to the State 4-H Health camp as representative county health achievement winner. A junior at Concordia college, Moorhead, Kroneman has held offices in his local club, has received the 4-H key award and has won grand championships in the county on numerous exhibits.

Miss Munson, who has just completed her junior year at the University, has been active in Home Economics association, Clovia, Lutheran Student association, and is a member of Phi Upsilon Omicron and Chimes, honorary organizations. Miss Robbins' activities include Alpha Gamma Delta, Panhellenic council, Lutheran Student association and Gopher Progressive party. In June she attended the annual session of Minnesota Girls' State, where she served as editor of "The Moccasin," Girls' State newspaper. Miss Robbins will be a sophomore at the University next fall.

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B-1584-rlr

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 23, 1957

For release at noon,
Thursday, July 25

PERMANENT PASTURES CAN HELP BRING TOP DAIRY PRODUCTION

GRAND RAPIDS--Sixty-seven 10-gallon cans of milk from 1 acre of bluegrass pasture in less than 7 days of grazing--that's possible if the pasture gets plenty of nitrogen fertilizer and if the cows receive some extra grain and hay.

These results from a "Feed or Frolic" pasture fertilizer demonstration were reported at the annual Field Day at the University of Minnesota's North Central Experiment Station here today.

Making the report were A. B. Salmela, and Nils Grimsbo, station staff members and Charles Simkins, extension soils specialist and Ermond Hartmans, extension agricultural economist at the University.

They said that in a 1-acre bluegrass pasture plot where 200 pounds of nitrogen fertilizer was applied early this year, 31 cows grazed for 6.5 days, received 3.4 pounds grain daily plus free-choice hay and produced 5,432 pounds of milk during that time.

That amount of milk figures out to more than 67 10-gallon cans, with 80 pounds of milk in each can.

On a non-fertilized 1-acre pasture plot the cows only had a half day's grazing, produced 457 pounds of milk and $1\frac{1}{2}$ tons silage were taken from the field. These results were based on pasture use up to June 28, 1957.

Cows in these tests were handled by the "strip grazing" method, so that they had just enough area for a half day of grazing.

The reason for this demonstration, the specialists said, is to "point out that permanent pastures in northern areas of Minnesota can provide good feed for dairy cows, instead of just a 'frolicking area' for the cattle." They said final conclusions would be reported at the end of the 1957 pasturing season.

(more)

Page 2, Permanent Pastures Can Help Bring Top Dairy Production

R. E. Nylund, University horticulturist, said research being conducted at the Grand Rapids station this summer indicates that tomatoes may be more practical for home gardens in northern Minnesota, if the gardener uses plastic mulches and tents.

Nylund compared several methods, alone and in combination, to get tomatoes to mature earlier. The big problem with tomatoes in this area of the state has been that the growing season is often too short for them to ripen before the first frost.

Where plants were set out in "disposable" peat pots, treated with a "starter" solution, the soil was covered with black polyethylene plastic mulch and plants were covered with a clear plastic "tent," plants are now 5-6 times as large as where none of these special treatments were used.

Tomato plants at Grand Rapids where all experimental techniques were used were about as mature now as are plants being grown conventionally in the Twin Cities area, Nylund said. The variety used in these tests is Faribo Hybrid E, a University-developed tomato.

Using the plastic mulch without the tents gave some increased growth, but not as much as when mulch and tents were used together, Nylund said. He also pointed out that where mulch was used, the plants were greener and there are no weeds, meaning that hoeing is eliminated.

The mulch is a strip of plastic 4 feet wide, with slits in the center for the plants. The mulch was first laid, the edges were covered with soil and the plants were put through the slits and set in the soil June 6. Where tents were used, they were set up at transplanting time and removed 2-3 weeks later, when the first flower cluster appeared. The tent is 24 inches wide and 18 inches high in the center.

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B-1585-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 23, 1957

SPECIAL TO WILCOX
County Agent Introduction

Recent heavy rains have caused an increase in some plant diseases in crops in southern Minnesota. Examining an oats field for signs of disease damage here are left, Martin Hachfeld, Faribault, Minn., farmer and certified seed producer and Warren Liebenstein, Rice county agent. Liebenstein is a 1950 graduate of the University of Minnesota, served as assistant agent in Brown and Olmsted counties before taking the Rice county position in 1951.

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-pjt-

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 25, 1957

Special Twin City Outlets

UNIVERSITY RECEIVES GRANT FOR CORN BREEDING RESEARCH

A \$6,000 grant for corn breeding research has been presented to the University of Minnesota's Institute of Agriculture by the Pioneer Seed Corn company, Johnston, Iowa.

The grant was made through the Greater University Fund, according to W. M. Myers, head of the department of agronomy and plant genetics. It will be used for basic studies on corn breeding methods.

This fund is to be used over a two-year period.

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-pjt-

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 25, 1957

For Release at noon,
Friday, July 26

TRACE ELEMENTS NO HELP TO CROP YIELDS AT DULUTH STATION

DULUTH--Minor elements were no help to crop yields in recent field experiments at the University of Minnesota's Northeast Experiment station here.

W. W. Nelson, agronomist at the Duluth station, reported that finding this morning during the stations' annual Field Day.

In fall, 1955, Nelson and University soils researchers added manganese, magnesium, molybdenum, boron, copper and zinc to legume-grass mixtures. Elements were added alone and in combination with sulfur.

Otherwise, all plots received the same fertilizer treatment--220 pounds of 0-12-36 per acre.

On the first hay cutting the following year, plots that received none of the minor element treatments averaged 2.22 tons per acre. Most of the plots where the minor elements were added averaged slightly less than that, although none of the differences either way were important.

It also made no difference whether the minor elements were added individually or all together; the yields were not increased.

Results were about the same on the second hay cutting, Nelson said.

W. P. Martin, head of the University soils department, told Field Day visitors that there may be a place for "slow nitrogen release" peat products in northeastern Minnesota farming. But he added that an effective product of this kind has not yet been developed for local production.

Some European peat-nitrogen products, though, have given better results on small grains than have conventional inorganic nitrogen fertilizers, Martin said. Experimental Minnesota peat products so far have given results intermediate between the European and the inorganic compounds.

Staff members at the Duluth station, in cooperation with University soils scientists, are checking for residual effects of these peat-nitrogen products on hay crops that were seeded in small grains, Martin explained. They are also checking for any soil structure improvement that may result from these products.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 25, 1957

Immediate Release

FRUIT BREEDERS SEARCHING FOR GOOD WILD BERRIES

The search is on for better and hardier berries for Minnesota and other northern regions.

According to A. N. Wilcox, professor of horticulture at the University of Minnesota, residents of this state can play an important role in the efforts of University scientists to develop better and hardier blackberries, black and red raspberries and blueberries for northern areas by reporting locations where good wild berries grow.

University fruit breeders are particularly interested in productive wild blackberry bushes that survive in open fields and clearings. They are also searching for hardier black and red raspberries and wild blueberries with exceptionally large fruits.

Residents of Minnesota and Wisconsin who know of locations where good fruiting wild blackberries, raspberries and large blueberries grow should write immediately to A. N. Wilcox, Institute of Agriculture, University of Minnesota, St. Paul 1. Information should include location of the bushes and probable ripening date.

The information on location of wild berry plants will be relayed to Robert Tuveson, botanist with the U. S. Department of Agriculture, who is now in the field in Minnesota and Wisconsin. The botanist wants to see the wild plants in fruit and get a sample of seeds. After visiting all possible locations of wild berries, he will return in September and, with the permission of the owner, will dig a few of the hardiest and most productive plants. These plants will be turned over to the University of Minnesota Fruit Breeding Farm and other experiment stations in the North Central states, where they will be propagated and then used as parents with desirable cultivated varieties, in an attempt to develop better fruits for this region.

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B-1587-jbn

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 25, 1957

Immediate Release

COMMERCIAL APPLE GROWERS TO HAVE TOUR

Commercial apple growers in Minnesota and western Wisconsin have scheduled their annual orchard tour for Tuesday, Aug. 20, in Hennepin county.

Sponsors of the annual event are the Minnesota Fruit Growers' association and the Wisconsin Horticultural society. In charge of arrangements is J. D. Winter, secretary of the Minnesota Fruit Growers' association and associate professor of horticulture at the University of Minnesota. George Roadfeldt, Hennepin county agricultural agent, is assisting with arrangements.

The tour will begin at 10 a.m. at Dumas Orchard, Long Lake. Commercial growers will spend the afternoon at the University of Minnesota Fruit Breeding Farm southwest of Excelsior viewing experimental plantings of apples on dwarfing stocks, new fruit varieties and seeing results of various spray programs.

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B-1588-jbn

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 25, 1957

Immediate Release

HAY CRUSHERS REDUCE DRYING TIME, SAVE HAY LEAVES

FARIBAULT--Crushing the hay as soon as it's mowed can cut the field drying time in half and put better quality forage in the hay mow, a group of Rice county farmers have learned.

These farmers are using hay crushers--devices that are pulled by a tractor, operated by power takeoff and operate roughly on the same principle as a washing machine wringer.

The crusher doesn't "wring" the moisture out of the hay, though. Instead, it cracks the stem so that moisture can evaporate quickly. That way, the stems dry as fast as the leaves--which contain much of the hay feed value--and the hay can be put up with less loss of leaves.

Rice County Agent Warren Liebenstein reports that crushers are gaining popularity in this area.

John Olson, owner of a 170-acre dairy farm here, says that crushing means he can cut his legume hay late in the morning and start baling it by noon of the next day. "That's only half the time it would take to get the hay dry without crushing it."

Like most other local farmers who have crushers, Olson has a model that has corrugated rollers. This device actually "crimps" the hay. There are also crushers with flat, smooth rollers.

It's important to crush the hay as soon as it's cut, Olson emphasizes. "We have a second tractor pulling the crusher, just one swath behind the mower. If you wait until the hay is wilted, the crusher won't work well."

Olson has had his crusher since he started haymaking this year. Every time he cuts, he leaves a small patch of hay in the middle of the field uncrushed, just to check the difference. "Every time, the bales from the center are too wet to be put in the barn the same time as the rest," he says.

(more)

Page 2, Hay Crushers Reduce Drying Time, Save Hay Leaves

Olson has a small amount of sweetclover--a coarse, heavy-stemmed legume--on his farm and finds that the crusher is especially helpful with this crop. "Ordinarily it takes several days to get this hay dry. But by crushing it, we found it dried almost as fast as the alfalfa."

Martin Hachfeld, farmer and certified seed producer, tried using a hay crusher on six acres of hay this year and feels that, based on the results, the machine would be a good investment.

"It would probably be even better to use the crusher along with a dryer in the hay mow. That would just about make it possible to cut the hay and haul it into the barn the same day," Hachfeld believes.

Saving the leaves was a big advantage of a hay crusher for Lowell Albers, another dairy farmer near here. "Crushing the hay makes the stems dry as fast as the leaves. Without a crusher, by the time the stems are dry enough to put the hay in the barn, the leaves are so dry they shatter off when the hay is put up."

Albers chops his hay, and says it's possible that crushing the hay even makes for better distribution in the barn. "Hay that was crushed dries so evenly that all particles are about the same weight after it's chopped," he explains. "Then the hay blower distributes more evenly. Otherwise, the stems would be heavier than the leaves and the lighter particles always blow farther."

His crusher was a particularly big help this year when there was a lot of rain during the haying season, Albers adds. Like Olson and Hachfeld, he found that crushing the hay cut field-curing time in two. "With less time needed for field drying, we can make much better use of the sunshine that we do get."

Olson, Hachfeld and Albers all use crushers that are independent of the mower. Some models include both a mower and crushing unit, and other crushers are made to hitch on to the same tractor that pulls the mower. The crusher is then hitched in such a way that it crushes the swath that was cut on the previous round.

Hay crushers vary in cost from \$700-1500 depending on whether they are just crushing units or include both a mower bar and a crusher.

Harold B. Swanson
Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 26, 1957

*File
Special Stone*

Special to Extension
Service Review

"May I Help You?". Those cheerful and simple everyday words greet visitors as they enter most Minnesota County Extension offices.

More important they reflect an attitude of service... an attitude that is the key to improved public relations and better working conditions in every Extension office. In this article we review a few similar everyday ideas, familiar to most of you, that some of our agents use to improve their public relations, their office efficiency and their communications with leaders in their county.

First, let's look at the way our secretaries greet and meet the public, either on phone or as office visitors. C. J. "Dick" Kunau, Goodhue County Agent, has recognized the important part secretaries play in these words;

"While the county agricultural agent is the administrative head of the staff, we consider the office secretary the "key" member on the team around whom the whole extension program unfolds. Her telephone "hello," her smile, and her courteous replies to all callers set the atmosphere for the office and make the first impression on the public."

Standard procedure among secretaries, of course, is to "usher" guests to the agent they wish to see or provide them with a chair and magazines, bulletins or other reading material if they have to wait.

A bigger problem, however, arises when the agent is out. Many Minnesota secretaries handle this well, using the opportunity to tell a little about the county extension work.

Eugene Pilgram, Chippewa county agent, reports that his secretary explains to visitors or callers that the agent is out on the job, actually telling them where they are and what they are doing. This helps acquaint visitors with the nature of the Extension job, Pilgram feels. At the same time the secretary tries to help them with bulletins, etc. so they won't go away empty handed. If there is a question or message naturally it's left for the appropriate agent to answer as soon as he or she returns.

Most secretaries take notes on the questions and problems posed by visitors, making sure to get their complete name and address for later follow up. Nobles county's Ross Huntsinger finds that such a list on his office daily sheet is a valuable reference.

As in many offices, the Houston county extension office where Wayne Hanson is agricultural agent, keeps the secretary well informed as to the whereabouts of the agent and when he or she is expected back. Here the responsibility rests squarely on the agents shoulders-- a responsibility that helps the secretary and makes for better relationships with the public.

Don Hasbargen and his Mower county staff make it a policy to keep the office secretary informed on seasonal topics. During the past summer, for example, she was given the grasshopper control recommendations to keep on her desk so that she could answer calls on this important problem while the agents are out.

Also basic to good relations within the staff and with the public is the keeping of all the staff informed as to what is going on and making sure that everyone understands and appreciates his or her part of any job.

Monday morning conferences are a traditional Extension method of doing this. Here agents become familiar with what each other is doing and here, too, many agents schedule when circular letters and other big jobs the office secretary must handle are to be done.

In Mower county, planning the work load is planned even further ahead. The office starts working on county fair in January when they made a list of signs, poster and letters that have to go out between then and county fair time. 4-H club newsletter and "Farm and Home Science" mailings are planned well in advance too; so addresses can be typed, etc.

Most agents agree, however, that the weekly conference is not enough and that the staff should meet together even more often even if only over a cup of coffee in a separate office. "Admittedly says Huntsinger, "we are great conferencers. I have found it is necessary to meet schedules and other elements in the general plan of work together. Often this leads to a more even sharing of responsibilities.

Extension agents, too, have to be familiar with and work with others who serve agriculture. To do this many counties throughout the country for years have had "Ag Councils" made up of representatives from various governmental agencies serving agriculture.

In Mower county this is done through the "PAWS" club. This professional ag workers group in the county includes vet and vo-ag instructors, SCS, FHA, and Extension. Meeting once a month, the club calls upon outside speakers and discusses special problems such as liquid fertilizer, weed control, etc. In this way all agencies are telling the same story when dealing with farm people.

Keeping the Extension Committee and local leaders informed about Extension activities is still another facet of good Extension relations.

Among other methods, Duane Wilson, Sibley County agent, prepares a form he calls "Monthly Report to Extension Committee". Here he gives a statistical breakdown of what the agents have done and leaves room for comments by the agents and the listing of coming events.

In Chippewa county the agents give a brief report on activities and progress at each extension committee meeting. Many counties illustrate these reports with slides and black and white pictures.

C. J. Campbell, Kittson county agent, has a special mailing list for his extension committee. Thus members receive notices of every meeting and event plus other general material.

In Mower county, the agents contact each member of the Extension committee personally about major problems. In this way committee members have the opportunity of thinking about a problem before they face it in their planning meetings.

Most Agents, too, have found that they can enhance their relationships with the public and with leaders as well as improve their teaching through cooperation with the press and radio. This cooperation goes well beyond the mere issuance of releases.

The old advice that the agent drop in the newspaper editor or radio station manager occasionally is followed religiously by many Minnesota agents. Invitations to meetings, special help on important events, a call, a letter, all add to the fund of good will that the mass media can provide Extension.

Houston county's Hanson makes sure, at the request of the weekly papers, that they have the news on time. He mails most of his releases on Friday for the coming week's editions so papers have plenty of time to set it in type, too.

He goes on to point out, that dependability and regularity are extremely important for best relationships with radio and press. He says, "Our two radio programs each week have been on continuously for many years. Regardless of work load, the tapes are at the stations and on time."

Campbell points out that all his news material is sent to all papers on the same day. Relationships, he says are kept good by strict adherence to the timeliness of the articles and regular events.

Wilson says that an occasional cup of coffee plus short to the point releases help his program greatly.

Agents thus agree that the success they have with local news and radio perhaps depends more on regularity, dependability, personal contact and timely subject matter than on brilliance of presentation.

There's nothing new in most of these ideas, but practicing the principles they point to cannot but help extension do a better educational job.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 29, 1957

LIVESTOCK FEEDING FEATURED
AT ANIMAL NUTRITION SHORT
COURSE

Special to Trade
Publications.

Livestock and feeding specialists from around the University of Minnesota and the Midwest will report on up-to-date nutrition research at the annual Animal Nutrition Short Course, Sept. 9 and 10, on the University of Minnesota's St. Paul Campus.

The speaker's slate will even include an animal scientist from Canada, according to Elton Johnson, head of the University poultry husbandry department and program chairman for the event.

Speakers at the Sept. 9 session will include H. J. Sloan, director of the Minnesota Agricultural Experiment Station, R. J. Meade, University livestock scientist and A. J. Wood, animal science professor from the University of British Columbia, Vancouver. Meade will discuss "Formulating rations and protein supplements for essential amino acids required by swine" and Wood will take on "Enzymes in baby pig nutrition".

At a ruminant nutrition meeting Sept. 10, J. D. Donkers, Minnesota dairy husbandman, will discuss energy in dairy cattle feeding, and "Rumen microbiology as related to concentrate and roughage feeding" will be the topic for C. F. Huffman, dairy husbandman from Michigan State university. A. J. Wood will discuss "Value of grain screenings for cattle" at this session.

A panel of experts will discuss thyroprotein feeding during the ruminant nutrition session Sept. 9. Heading the panel will be C. E. Cole, head of the University of Minnesota dairy department, along with R. Ahlin, Doughboy Industries, New Richmond, Wisc.; L. V. Burns, Agri. Tech, Inc., Kansas City, Mo; J. D. Donkers; C. F. Huffman; R. J. Meade and A. J. Wood.

R. H. Thayer, Oklahoma A & M college, will talk on the nutrition of cage layers during the Sept. 10 opening session on poultry nutrition. "Management and economics of layer programs in north central states" will be the topic for D. H. Sherwood,

add 1 nutrition short course

General Mills, Indianola, Ia. and C. W. Carlson, poultry husbandman from South Dakota State college will discuss "Antibiotics for layers". P. E. Waible, Minnesota poultry scientist, will discuss "Results of a turkey hemorrhage survey."

R. H. Thayer will explain latest concepts in turkey nutrition and C. W. Carlson will talk on energy-protein relationships with growing turkeys during the Sept. 10 afternoon session.

The short course will wind up that day with informal round table discussion groups on poultry, swine and beef and dairy cattle feeding.

The University dairy department will provide special exhibits for the short course.

For more information, write to the director of agricultural short courses, Institute of Agriculture, University of Minnesota, St. Paul 1.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
July 29 1957

To all counties
For use week of
August 5 or later

A U. of M. Ag and Home Research Story

RANDOX, 2,4-D GIVE
GOOD WEED CONTROL
IN CORN FIELDS

A mixture of Randox and 2,4-D ester gave good weed control in corn in University of Minnesota field tests this spring and summer.

According to R. S. Dunham, University agronomist, and John Thompson, agronomist at the Southern Experiment Station, Waseca, these chemicals when applied as a pre-emergence "band" spray controlled weeds so well that, in some cases, it was possible to eliminate one cultivation later on.

The tests were conducted at the Waseca station.

Band spraying means placing the spray directly over the corn rows in bands about a foot wide. In the Waseca tests, this was done with a sprayer mounted on the planter. Pre-emergence spraying means applying the chemical after the corn is planted but before it comes up.

In all cases, the 2,4-D was applied at 1/2 pound per acre. The researchers tried Randox at 4, 5 and 6 pounds per acre. Heavier applications, in general, gave better control.

Results were equally good when the spray was broadcast over the entire field, but that practice was much more expensive than band spraying. Chemical expenses ranged from \$3-5 per acre for band spraying Randox, depending on the spraying rate. For broadcast spraying, the same chemical varied from \$12-18 per acre.

Dunham and Thompson also found that weeds were controlled well when Randox and 2,4-D amine were applied in the "coleoptile" stage. The coleoptile is the first corn leaf that comes up. They add, though, that a farmer would need to be careful when using this practice. If the corn is sprayed too late, plants with two leaves up will be damaged by the spray.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
July 29 1957

To all counties

For use week of
August 5 or later

TRACTORS ARE
MAJOR CAUSE OF
FARM ACCIDENTS

Tractors and other machinery are still major causes of farm work accidents, says County Agent _____.

He points to a report from Glenn Prickett, extension farm safety specialist at the University of Minnesota, showing that 27 of the 51 farm work accident deaths in the state last year resulted from machinery.

And of the machinery-caused farm work accident deaths, 21 resulted from tractors. There were another 10 tractor accident deaths classified by the Minnesota Department of Health as "farm home" or "highway" accidents during the year, making a total of 31 deaths from farm tractors in 1956.

Actually, that's a decrease from recent years, Prickett points out. There were a total of 35 deaths from tractor accidents in 1955 and 37 in 1954.

Other farm work accident deaths resulting from machinery included 3 power takeoff shaft accidents, 1 accident involving wagons, 1 with a hay loader and 1 accident involving a grain elevator.

In 1955, there were 7 deaths from accidents with power takeoff shafts alone.

Since there is more machinery on Minnesota farms than ever, Prickett says the slight decrease in farm work accidents is an encouraging sign. But he emphasizes the constant need for more caution with farm tractors and other machinery.

He points out that power takeoff shafts always need to be covered with proper shields. Tractors need to be hitched and operated carefully to avoid tipping over-- which often results in fatal tractor accidents.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
July 29 1957

To all counties
For use week of
August 5 or after

ATT: 4-H AGENTS

LOCAL WINNERS
NAMED IN FARM
FIRE PREVENTION

_____, _____ and _____,
(name) (club and address) (name) (club and address)

have been named winners in the county 4-H farm fire-prevention program for their activities in inspecting farmsteads for fire hazards.

The _____ county 4-H boy and girl will each receive a \$5 cash award and will be eligible to compete for awards in the state farm fire-prevention program, 4-H (County) Agent _____ announces.

Club members enrolled in the farm fire-prevention program are playing an important part in helping to reduce the toll of human lives and destruction of property from rural fires, _____ says. Last year reported farm fires were responsible for 14 deaths in Minnesota and destruction of more than a hundred homes and a hundred barns--property amounting to one and a quarter million dollars.

The two county winners and all other 4-H members in the fire-prevention program have made at least four inspections of farms and rural homes in an effort to eliminate fire hazards. Hazards are usually tagged and checked later to see if they have been removed. The story of inspection experiences, demonstrations and participation in meetings on safety and fire prevention are all taken into consideration when fire prevention records are judged.

Winners at the state level--one boy and one girl--will receive a trip to the National Safety congress in Chicago in October, where they will compete for national awards. The top boy and girl in the nation will be awarded a \$100 savings bond and a trip to the annual meeting of the National Association of Mutual Insurance companies, sponsors of the program.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
July 29 1957

To all counties
For use week of
August 5 or later

FARM FILLERS

Sheep are the only livestock that will reach choice slaughter finish on pasture alone, so give them good grazing, advises R. E. Jacobs, extension livestock specialist at the University of Minnesota. If sheep have been on bluegrass up to now, it'll pay you to fence off some second-growth legume-grass fields for them. Use fields that don't contain more than half legumes, though.

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Several kinds of "bedding plants"--such as petunias, zinnias and marigolds--have been successfully raised in experimental plastic-covered greenhouses at the University of Minnesota, according to Floriculturist R. E. Widmer.

* * * * *

Applying maleic hydrazide--also called "MH"--to potatoes during the growing season reduced sprouting by more than 75 percent when the spuds were stored, in recent University of Minnesota experiments. R. E. Nylund, horticulturist, says the treatment worked equally well either as an over spray or as a basal spray.

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Farm wage rates in Minnesota have gone up by more than 300 percent since 1940, according to Hal Routhe and Ermond Hartmans, extension agricultural economists at the University of Minnesota. That compares to a 76 percent increase for motor power and 130 percent for farm machinery.

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About a third of all Minnesota dairy cows were bred artificially in 1956.

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Fifteen percent of all fertilizer mixtures are granulated, according to the U. S. Department of Agriculture.

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For the country as a whole, dairy cows had good eating early this summer. The U. S. Department of Agriculture says dairy pasture conditions on July 1 were 12 percent better than last year and 5 percent above average for that date.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
July 29 1957

To all counties

For use week of
August 5 or later

PASTURES CAN BE RENOVATED NOW

These early August days are ideal for renovating pastures, according to
County Agent _____.

But he adds that before you renovate an area, it's wise to first make certain
the area is worth it.

Bill Hueg, extension agronomist at the University of Minnesota, points out that
renovating costs from \$25-50 per acre. So even though renovation may increase
pasture yields 3-5 times, Hueg advises farmers to first decide whether it might
be even better to use that investment--for fertilizer, seed and better crop manage-
ment--on existing cropland.

If you do decide to renovate, take a complete soil test to find the plant nutrient
needs. Start renovating with a disc or field cultivator as soon as possible now,
because pastures are in their worst condition at this time of year and plants are
most easily killed.

If there is much erosion danger, renovate the slope in strips rather than in a
solid block, to keep erosion to a minimum.

Continue renovating until freeze-up. Then in early spring, apply fertilizer as
called for by the soil test, before the last discing or at planting time.

Seed the pasture about a half inch deep. A bushel of oats per acre may be add-
ed as a companion crop, then pastured off when it's about 10 inches high.

A good general purpose seeding mixture for renovated land is 5 pounds alfalfa,
2 pounds red clover, 1/2 - 1 pound ladino and 6-8 pounds brome-grass. For well-
drained soil, 6-8 pounds alfalfa and 6-8 pounds brome-grass have proven satisfact-
ory in field tests, Hueg says.

For long-term stands in southeastern Minnesota, it's okay to use Empire
birdsfoot trefoil at 5-6 pounds of Empire birdsfoot trefoil and 6 pound of brome-
grass.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
July 29 1957

To all counties

ATT: HOME AGENTS
For use week of
August 5

MIDSUMMER IS
TURKEY TIME

Turkey time is midsummer, so far as the monthly list of plentiful foods for August is concerned, reports Home Agent _____.

Turkey is given the top position on the monthly list issued by the U. S. Department of Agriculture. A record number of turkeys is expected this year. Many of them already have been marketed and more turkey will come to retail stores during this month than in any previous August.

August always brings generous supplies of locally grown fresh vegetables of many kinds. Sweet corn, tomatoes, peppers, snap beans and summer squash are only a few of the vegetables that will be good buys during the month.

The largest peach crop in 10 years will be harvested during August and early September and Bartlett pears also will be plentiful for eating fresh and for preserving. An abundance of lemons and limes will keep all of us supplied with refreshing cold drinks during the hot weather.

Although milk production may be past its peak, supplies of milk are greater than the demand. Milk and dairy products of all kinds are included on the list of plentiful foods.

Fresh fish will be about at the peak of supply during August, along with frozen salmon and halibut.

Peanut butter and vegetable fats and oils, which have been regular items on the list for many months, complete the August roster of plentiful foods.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 30, 1957

Immediate Release

MINNESOTA FARM CALENDAR

- **July 29-Sept. 6 Freshman Foresters' Course, Itasca State Park
- *Aug. 19-23 Home Economics Teachers' Conference, St. Paul Campus
- Aug. 24-Sept. 2 State Fair
- **Sept. 9-10 Animal Nutrition Short Course, St. Paul Campus
- Sept. 10-13 National Barrow Show, Austin
- #Sept. 12-15 State 4-H Conservation Camp, Itasca State Park
- **Sept. 13-14 Flowville, Winona
- #Sept. 15-18 State 4-H Health Achievement Camp, Itasca State Park
- *Sept. 16-21 DHIA Supervisors' Training School, St. Paul Campus
- **Sept. 17-19 Dairy Products Institute, St. Paul Campus
- **Sept. 19 Beef Cattle-Grassland Field Day, Rosemount Agricultural Experiment Station
- **Sept. 27 Swine Feeders' Day, St. Paul Campus
- #Sept. 30-Oct. 3 Junior Livestock Show, So. St. Paul
- *Oct. 7-9 Farm Income Tax Short Course, Lowry Hotel, St. Paul
- *Oct. 22-25 National Home Demonstration Agents Association Convention, Leamington Hotel, Minneapolis.

*Information from Short Course Office, Institute of Agriculture, University of Minnesota, St. Paul 1.

**Information from Information Service, Institute of Agriculture, University of Minnesota, St. Paul 1.

Information from 4-H Office, Institute of Agriculture, University of Minnesota, St. Paul 1.

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B-1590-jbn

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 30, 1957

Immediate Release

DAIRY PRODUCTS INSTITUTE WILL BE HELD SEPT. 17-19

About 600 persons will attend the annual Dairy Products Institute Sept. 17-19 on the St. Paul campus of the University of Minnesota, according to J. O. Christianson, director of agricultural short courses.

Dairy scientists will report on current problems and research in butter, ice cream, concentrated and dry milk manufacturing, market milk and cheese at the event.

Program chairman for the institute is W. B. Combs, dairy professor at the University.

The event will also include ice cream and cottage cheese exhibits and a cottage cheese grading and flavor clinic.

A fieldmen's conference will highlight the program for the final day of the event.

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B-1591-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 30, 1957

A FARM AND HOME
RESEARCH FEATURE

CHEMICALS REDUCE SPROUTING IN STORED POTATOES

A chemical applied to potatoes during the growing season can practically eliminate the sprouting problem later on when the spuds are stored.

R. E. Nylund, horticulturist at the University of Minnesota, has found that maleic hydrazide--also called "MH"--reduced sprouting by more than 75 percent, when applied at 2 pounds per acre between the full bloom and post-bloom stages.

The treatment worked equally well either as an overall spray or as a "basal" spray--applied only to the bottom part of the potato plant. Potatoes sprayed this way were then stored at temperatures of 50-55 degrees for 8 months with little or no sprouting.

Keeping stored potatoes from sprouting has long been a problem. Common practice has been to store them at low temperatures to help prevent sprouting, but this raises another problem. When stored below 50 degrees, potatoes tend to produce undesirable dark potato chips and French fries.

Another way is to treat stored potatoes in mid-December with a material called MENA. But this method is practical only for home use, because nobody who stores potatoes in large quantities would be able to treat them in mid-December.

In recent years, Nylund tried applying MH at different stages of growth, and found that sprouting was reduced most when the material was applied in the late full-bloom to post-bloom stage. At that time, the tubers under the vines are 1-2 inches in diameter.

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B-1592-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota

July 30, 1957

Immediate Release

SIX IFYEs TO MINNESOTA IN AUGUST

Arrival of six young people from India, Iran, Nepal and Guatemala August 11 will bring to 15 the number of International Farm Youth exchangees to spend this summer in Minnesota.

The group will arrive in the Twin Cities from Madison, Wis., after attending the mid-point meeting for IFYEs at the University of Wisconsin August 7-10.

Included in the group will be two men from India, Balbir Singh Basi, 28, Nagar, Uttar Pradesh, and Raghunath Wadkar, 29, Kolhapur, Bombay State; Massoud Khoddami, 22, Garmsar, Iran; two women from Nepal, Lakhi Mahat, 22, Kathmandu, and Tula Shah, 21, West No. 4 Syangja Nawakot; and Nery Oswaldo Melgar, Santa Rosa, Guatemala.

Special activities planned for the IFYEs while they are in Minnesota include attendance at the Minnesota State Fair and at either the State 4-H Health or Conservation camp in Itasca State Park, according to Stanley Meinen, assistant state 4-H club leader at the University of Minnesota.

The IFYEs will spend the remainder of the time until the middle of October living and working with farm families in the following counties: Basi, Yellow Medicine and Dakota; Wadkar, Lac Qui Parle and Scott; Khoddami, Red Lake and Rice; Miss Mahat and Miss Shah, Washington and Nicollet; Melgar, Douglas and Nobles.

Both men from India have lived for 10 years in farming villages and have operated farms. Wadkar has a B. A. degree from Poona university. Basi is a member of the Cane Development and Marketing Cooperative union and the Collective Farm Managing union. They are interested in learning better methods of farming.

Khoddami has completed two years of study at the Agriculture Normal School in Iran and is a village level worker. He has lived for 18 years on a nine-acre irrigated farm. His special interests are livestock and poultry breeding.

Miss Mahat and Miss Shah are instructors in women's village development training centers. Miss Shah has a B. A. from Banaras Hindu university. Miss Mahat has completed high school and has taken a short course in home economics.

Melgar has spent all his life on a large farm specializing in livestock. He is now farming with his father in Santa Rosa, Guatemala.

The IFYE program is conducted by the National 4-H Foundation and the Agricultural Extension Service.

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E-1593-jbn

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 30, 1957

SPECIAL TO WILCOX
County Agent Introduction

Taking a soil sample correctly means much more than just putting a clump of earth into a paper sack. Correct procedure calls for carefully selecting the sampling areas, using the right equipment and taking the sample at the correct depth. This procedure is being demonstrated here by John Grava, left, head of the University of Minnesota soils testing laboratory, and John Olson, assistant agricultural Agent in Freeborn county. Olson is a Rice county native and is a 1955 graduate of the University of Minnesota.

-pjt-

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
July 31 1957

To Minnesota Weeklies
(with mat)

For use week of
August 5

CUTLINE: Learning to use a camera effectively is part of the training Margaret Mallak, Winsted, and Donavan Johnson, Atwater, received before going overseas as International Farm Youth Exchange delegates.

MINNESOTA IFYES
TO INDIA,
GUATEMALA

Two "grass roots ambassadors" from Minnesota will be on their way to the Far East and Central America this month.

Margaret Mallak, 22, Winsted, will sail for India from New York City Aug. 15 on the S.S. Independence. Donavan Johnson, 24, Atwater, will fly to Guatemala from Miami, Florida, Aug. 28. Both will spend several days in Washington, D. C., in orientation before leaving this country.

The two young people are among five International Farm Youth Exchange delegates from Minnesota who will live and work with farm families in foreign countries this year from four to six months. Miss Mallak is the first young woman from Minnesota assigned to India as an IFYE delegate.

Genevieve Carter, Bemidji, is now in Sweden and Duain Vierow, North St. Paul, is in the Netherlands, both as IFYES. A fifth IFYE from Minnesota, Iver Aal, Starbuck, will go to Costa Rica in October.

Miss Mallak taught art and English in Menahga this past year. She holds a B. A. degree from Alverno college, Milwaukee. She was an active 4-H club and Rural Youth member in McLeod county, where she grew up on a 120-acre farm. She and her parents were hosts this summer to Aktadar Arjumand, IFYE from India.

Johnson has been attending State college, St. Cloud, where he is majoring in industrial arts and agriculture. He rents and operates a 120-acre farm with his brother. He was a 4-H club member in Kandiyohi county for 11 years and a member of the county Rural Youth.

The IFYE program, designed to promote better understanding among rural young people, is a two-way exchange sponsored by the National 4-H Foundation and the Agricultural Extension Service. This summer Minnesota will be host to 15 rural young people from 11 different countries in the return phase of the exchange.-jtn-

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
July 31, 1957

SPECIAL to NATRFD Chats

Nearly 300 members of the American Association of Agricultural Editors (AAACE) from 40 states, Mexico, and Canada met in mile high Fort Collins, Colorado for their 41st annual meeting. Highlights of the meeting were the election of officers, task force discussion of the convention theme "AAACE Accepts the Challenges," and announcement of several awards.

Joe McClelland, Arizona extension editor, was elected president of the association. Other officers elected include O. B. Copeland, North Carolina, vice-president; Ralph Reeder, Purdue, secretary-treasurer; Ted Moses, Texas A and M, southern region director; and Bryant Kearl, Wisconsin, north central region director. Officers holding over include Elton Tait, Pennsylvania, eastern district director; Mrs. Anna H. Erickson, Washington State, western district director; and Samuel Reck, Rutgers, immediate past president, who presided over the meeting.

AAACE's highest honor, the Rueben Brigham award, went to Donald Murphy, Wallace's Farmer, Des Moines, Iowa. This award is given each year to the person outside Land Grant Colleges and the USDA who has contributed greatly to agricultural journalism and agriculture through the information media.

Four younger members of AAACE of stature and promise were given the Jeter Memorial awards in memory of the late and greatly loved and respected, Frank Jeter of North Carolina. They included Margaret Mc Keegen, Michigan State university; Hal Taylor, Wyoming; Roderick Reynolds, Maine; and Charles Voyles, Oklahoma A and M.

Lowell Brandner, Kansas State College Experiment station editor, was awarded the \$500 AAACE-National Plant Food Institute award and J. Aubrey Smith, University of Georgia visual aids editor, received the \$500 Farm Film Foundation award. Both awards are made to AAACE members who have made notable progress in their specialized fields.

(more)

Many NATRFD members (active and associate) attended the AAACE meeting. Jack Timmons, RFD prexy, spoke at one of the sessions.

Max Kirkland (New Jersey) chairman of the Radio-TV committee for AAACE reported on the Northeast Regional Radio Workshop held in New York City in April. His complete written report is well worth reading.

In the communications contest held in connection with AAACE, many TRFD's won national honors. In the radio transcription class, "Excellent" ratings were received by Minnesota, Michigan, North Dakota, Indiana, New Mexico and Colorado. "Excellent" radio manuscripts were submitted by New York, Iowa and Pennsylvania. In TV, "Excellents" were given to Indiana, Iowa, Pennsylvania and George for IV film and to Illinois, Michigan, North Carolina, Massachusetts and Vermont for IV scripts.

A large part of the meeting was devoted to the consideration of these five challenges:

1. To find new facts through research in agricultural communications.
2. To encourage competent young men and women to choose careers in agricultural and home economics communications.
3. To improve the professional skills and abilities of agricultural college editors.
4. To improve the communications skills and abilities of all workers in agriculture and home economics.
5. To better know and understand the respective media of communications and the forces which apply in the use of these media.

University Farm and Home News
Institute of Agriculture
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July 31, 1957

Special to Twin City Outlets

U ANIMAL HUSBANDMAN TO COLOMBIA

Harold R. Searles, extension dairyman at the University of Minnesota, has been invited to judge Brown Swiss cattle at the Colombian Exposition in Bogota, Colombia, August 3-7.

Searles will leave by plane from the Twin Cities August 1.

Following the exposition he will spend two weeks classifying Brown Swiss cattle as to type on haciendas in Colombia. He is making the trip to Colombia on the invitation of the Colombian Brown Swiss association.

Searles, who has been extension dairyman since 1922, received this year's \$1,000 DeLaval Separator company award for outstanding service to dairy farmers.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
August 1 1957

HELPS FOR HOME AGENTS

(These shorts are intended as fillers for
your radio programs or your newspaper
columns. Adapt them to fit your needs)

In this issue:

It's Cheaper to Eat

Black Butter Sauce for Vegetables

Speed Important in Getting Corn Ready

Scalding a "Must" for Good-Quality Frozen Corn

It's Jam and Jelly Time

New Water-Resistant Cottons

Cool Fabrics for Hot Weather

Cord into Appliance First

Care of Small Household

Appliances

CONSUMER MARKETING

It's Cheaper to Eat

It's cheaper to eat and wear clothes than it is to do almost anything else, according to the U. S. Agricultural Marketing Service. Clothing costs only about five percent more than it did 10 years ago, and food costs 13 percent more; but rents have gone up more than 30 percent.

In actual dollars and cents, food costs more than it did before World War II, but when you measure costs in terms of an hour's labor, prices are not so high. In 1939, the average hour's pay for a factory worker would buy eight loaves of bread; today an hour's pay buys 11 loaves. In pre-war days, an hour's pay would buy 1.8 pounds of steak; today it will buy 2.2 pounds. That same hourly wage 17 years ago would buy a little over 10 quarts of milk; today it buys 16 quarts. In fact, name any important food, and an hour of today's wages will buy from one-fifth to one-half more than in 1939.

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Cooperative Extension Work in Agriculture and Home Economics, University of Minnesota, Agricultural Extension Service and U. S. Department of Agriculture Cooperating, Skuli Rutford, Director. Published in furtherance of Agricultural Extension Acts of May 8 and June 30, 1914.

FOOD AND NUTRITIONBlack Butter Sauce for Vegetables

Vary the vegetables you serve your family with different sauces. For green beans or broccoli, try this black butter sauce suggested by extension nutritionists at the University of Minnesota: Melt 3 tablespoons butter and brown it lightly. Stir in a tablespoon vinegar, add 1/4 teaspoon salt and a few grains of pepper. Pour over cooked green beans or broccoli.

* * * * *

Speed Important in Getting Corn Ready

One of the most important rules to remember when freezing sweet corn is speed-speed from garden to home freezer or locker. Corn loses flavor quickly when it is held for any length of time after picking, unless it is kept under refrigeration.

* * * * *

Scalding a 'Must' for Good-Quality Frozen Corn

Scalding is a "must" in preparing sweet corn for freezing. Scalding stops enzyme activity, preserves the fresh quality of corn, as well as its color and vitamin content. It also lengthens storage life.

For a timetable on the length of time to scald corn, consult Ext. Folder 156, "Freezing Fruits and Vegetables." You can get a free copy at your county extension office. Complete directions based on University of Minnesota research are given in the folder on freezing a variety of fruits and vegetables.

* * * * *

It's Jam and Jelly Time

Grandmother was famous for her fruit conserves and preserves. Today you can match her fame-and even surpass it - with much less effort. A U. S. Department of Agriculture bulletin, just off the press, "How to Make Homemade Jellies, Jams, and Preserves at Home," offers newer time-saving ways of making jellies and jams that allow for a wider choice of fruit, more fully ripe flavor and more variety in fruit spreads. The bulletin explains in detail all the steps in making jams and jellies and gives many good recipes. You can get a copy of the bulletin from the county extension office. *

-jbn-

* Note to agent: You can order more copies of the bulletin from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul 1.

CLOTHINGNew Water-Resistant Cottons

You may soon be able to get cotton fabrics with built-in wind and water resistance. Through the use of a new loom device developed by the U. S. Department of Agriculture, these resistant cottons are woven densely to shut out the wind and water but porous enough to let cooling air circulate through them.

Most of today's fabrics are made water resistant by chemical treatments that rarely last the lifetime of the fabric and are uncomfortable to wear in hot weather. Water-resistance in the new fabrics can't wear off because it's due to their tight weave.

The new cottons will probably be widely used for rainwear as well as for industrial purposes.

* * * * *

Cool Fabrics for Hot Weather

What fabrics are coolest in hot weather?

All-cotton, all-rayon and cotton-synthetic blends are most comfortable in warm weather because they absorb moisture, according to a cooperative study by textile researchers at the University of Minnesota and South Dakota State college Agricultural Experiment stations. Cotton compared favorably with the newer fibers for blouse and shirt fabrics in both comfort and durability.

Fifteen fabrics selected as typical of those used for men's shirts and women's blouses were compared in the study - cotton, rayon, nylon, Dacron, blends of Orlon and rayon and of Dacron and cotton.

The comfort of a shirt or blouse, particularly in warm weather, may depend considerably on whether the fabric is porous enough to permit air to move freely through it, the home economists report. Fabric made from fibers that don't absorb moisture, such as some of the new synthetics, need to be constructed so the air may circulate through them. Otherwise, moisture on the skin will not evaporate and the wearer will be uncomfortable. For cotton and rayon fabrics an open weave is not essential because these fabrics absorb moisture which movement of air on the outside of the garment can evaporate.

HOME MANAGEMENTCord into Appliance First

One of the responsibilities of today's homemaker is to learn how to handle her electrical appliances properly -- both for the sake of efficiency and safety. Serious injury and even death have resulted from carelessness with electricity. University of Minnesota equipment specialists give some rules to remember in handling cords for electric appliances:

1. Put the cord into the appliance first and then into the outlet.
2. Remove the cord from the outlet first and then from the appliance.

Not only is this procedure a safety measure, it keeps your appliance at top performance longer. Improper use of the cord causes sparking, which wears off the prongs on the appliance.

3. Never wrap the cord around a hot appliance.
4. Keep the cord free from kinks and knots.
5. If the cord is separate, remove it and hang it over a round peg or large spool.

* * * * *

Care of Small Household Appliances

Here are some things to remember in caring for your electrical appliances so they will give you more efficient service and will last longer.

- Follow the manufacturer's directions for use and care of small electrical appliances.
- Oil motors with the type and amount of oil suggested by the manufacturer.
- Use appliances with thermostatic control only on alternating current -- AC.
- Handle all equipment carefully ... avoid dropping, shaking or bumping it.
- Don't immerse the electrical unit of any appliance in water, unless the manufacturer states specifically that it can be done.
- Always clean and dry equipment before putting it away. Wipe with a damp cloth or sponge and dry thoroughly with a soft cloth.
- Always disconnect the appliance and let it cool before cleaning it.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 1, 1957

Immediate Release

SPEED IMPORTANT IN GETTING CORN READY FOR FREEZER

Speed from garden to freezer or locker is one of the important rules to remember when freezing sweet corn.

So say two University of Minnesota experts in freezing, J. D. Winter and Shirley Trantabella of the University food processing laboratory.

Corn quickly loses flavor when held for any length of time after picking. If it cannot be processed immediately after being harvested, refrigerate it.

For top quality, corn must also be at just the right stage of maturity for best eating. It is usually considered at the proper stage of maturity if milk spurts out freely when the thumbnail is pressed into a kernel. When buying corn, check to see that the corn silk is dark brown and shiny, not dry. Husks should be dark green, fresh and should fit tightly around the bottom of the ear.

Tests at the University food processing laboratory indicate that Golden Bantam types are best for freezing. Golden Freezer, Cream O'Gold and Butter Nugget are especially good.

Scalding is perhaps the most important step in preparing sweet corn for freezing, according to the University experts. It preserves the fresh quality of corn, as well as its color and vitamin content, and lengthens storage life.

They give these directions for preparing sweet corn for freezing:

For scalding, use a large kettle that will hold at least 12 to 15 quarts of boiling water. Place the corn in a wire basket or large cheesecloth bag and submerge it in the boiling water. Keep the kettle covered during the scalding and have the heat on high. Always count the time from the second the vegetable is put into the boiling water.

Whole kernel corn to be cut from the cob should be scalded $4\frac{1}{2}$ minutes before cutting. For corn that is to be left on the cob, follow this schedule: Scald 24 midget ears or 14 small ears in 12 quarts of water for 8 minutes; 10 medium to large ears in 12 quarts of water for 11 minutes.

Chill the corn quickly in cold running water or iced water for about one and a half times as long as the period given for scalding. Then drain, package and freeze.

In cooking the frozen corn for eating, partially thaw it first and allow from six to eight minutes for four to six ears, counting the time from the second the corn is put into the boiling water.

Further information on freezing corn is given in Extension Folder 156, "Freezing Fruits and Vegetables." Extension Folder 100, "Home Canning Fruits and Vegetables," contains directions for canning corn. Both publications are available free of charge from county agricultural extension offices or from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul 1. ##### B-1594-jbn

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 1, 1957

Immediate Release

FARM WAGE RATES INCREASE FASTER THAN FARM MACHINERY COSTS IN MINNESOTA

Farm wage rates in Minnesota and the rest of the nation have increased almost three times as rapidly as equipment costs.

Hal Routhe and Ermond Hartmans, extension agricultural economists at the University of Minnesota, point out that farm wage rates have risen by more than 300 percent since 1940, compared to a 76 percent increase for motor power and 130 percent for farm machinery.

They report on these changes in the recent issue "Minnesota Farm Business Notes," a publication of the University Agricultural Extension Service.

Greatest changes in these costs was between 1940 and the early postwar years. Recently, the relationships have held steady and all costs have increased at about the same rate.

The greater increase in wage rates, though, has made it more necessary for many farmers to substitute machinery for hired labor, the economists point out. As evidence, he explains that while farm wage rates have tripled in the U. S. since 1940, total expenditures for farm labor have only doubled.

He expects this trend to continue in the future, as long as there is a high employment level in the general economy.

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B-1595-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 1, 1957

Immediate Release

MINNESOTA SCORES GAINS IN ARTIFICIAL BREEDING

Artificial breeding has made big strides in dairy herd improvement in Minnesota during the past 15 years.

Harold Searles, extension dairyman at the University of Minnesota, points out that more than a half million dairy cows--528,719--were bred artificially in the state during 1956. That's about a third of all Minnesota dairy cows, Searles explains.

This compares to 495,330 in 1955, 453,000 the year before that and less than 300,000 in 1951.

For the nation as a whole, Minnesota since 1953 has been second **only** to Wisconsin in number of dairy cows served by artificial breeding associations.

Artificial breeding made its start in Minnesota in 1939, with the organization of the Floodwood Cooperative Breeding association. By 1943, there were 43,000 cows in the state reported bred artificially. The small local bull studs have been replaced by large, more efficient organization. Most of the breeding in Minnesota is now done by Minnesota Valley Breeders and Consolidated Breeders Cooperative.

Searles says that the better sires through artificial breeding have been a factor in our increased milk production per cow.

By employing artificial breeding, better herd sires are available to more dairy farmers. And for all except dairymen with exceptionally large herds, the cost is lower for artificial breeding--usually around \$5-\$7 per cow.

Keeping a herd sire would cost a farmer from \$150-\$175 annually just for feed. In addition, there is the initial expense in buying or raising the bull.

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B-1596-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 1, 1957

Immediate Release

TAKE STEPS TO PREVENT MILDEW IN HUMID WEATHER

Clothing stored during muggy summer weather can provide the perfect setting for mold growth.

That's why it's particularly important for homemakers to take steps to protect family clothing against mildew damage during this humid weather, Athelene Scheid, extension clothing specialist at the University of Minnesota, said today.

Remove mildew spots as soon as you discover them, before the mold growth has a chance to weaken or rot the material, she urges. Take off any surface growth by brushing clothing out-of-doors to prevent scattering mold spores in the house. Dry-clean fabrics that cannot be washed. Wash at once with soap and water any fresh mildew stains on washable clothing or household articles; then dry in the sun. If a stain remains moisten with lemon juice and salt and spread in the sun to bleach. Sodium perborate is a safe bleach to use on washable material for fresh stains. Chlorine bleach can be used to remove most old stains on white cottons.

To prevent mildew, never let wet or damp clothing lie around, Miss Scheid cautions. Dry soiled clothes, towels and washcloths before putting them into a hamper. Stretch out wet shower curtains. Don't sprinkle clothes in hot, humid weather until you can follow through with the ironing. Dampened rolled-up clothes are an open invitation to mildew-molds.

Cleanliness, good ventilation and dry atmosphere are effective weapons against closet mildew. Since soil on clothing can supply nutrients for molds, always wash or dry-clean clothing before you store it. Hang clothes as loosely as possible, so that air can circulate around them. Store shoes, suitcases and other leather goods on shelves. To dry the air in a closet, burn a small electric light in it. It's wise to open the closet door occasionally or to use an electric fan to keep the closet air circulating. Take special care to ventilate linen closets in bathrooms.

From time to time, check woolen clothing put away in garment bags. Never store textiles in a damp basement, even though they are treated with a mildew-resistant finish.

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B-1597-jbn

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 1, 1957

Immediate Release

TURKEY GOOD BUY THIS MONTH

If you want to take advantage of one of the best protein buys this month, you'll feature roast turkey, hot or cold, in salads and sandwiches in family meals this month.

Turkey is the leading item on the U. S. Department of Agriculture's list of plentiful foods for August. An all-time record supply of turkey is in sight for the year, and more of it will come to retail stores this month than in any previous August.

Mrs. Eleanor Loomis, extension consumer marketing agent at the University of Minnesota, reports that the big birds will be in largest supply and generally the best buy for those who can make use of a great deal of turkey meat. For others smaller turkeys will be available.

To keep company with turkey, a great variety of locally grown vegetables will be harvested in home and market gardens--tomatoes, sweet corn, green beans, cabbage, lettuce, beets, summer squash and many others.

The largest peach crop in 10 years will come to markets during August and early September. Elberta and Hale peaches are in now from California and later in the month will be coming from Colorado. Bartlett pears from a larger than average crop will be plentiful for eating fresh and for preserving. There will be an abundance of lemons and limes, both fresh and processed, for refreshing cold drinks.

Milk and other dairy products will continue to be plentiful during August, as the nation's cows work at a new record of milk production for the year. According to nutritionists, if you're inclined to take more of your milk products in the form of ice cream during August, you're still getting the health benefits of milk.

August is fishing season for commercial fishermen as well as for amateurs. A big variety of fish will be available from rivers and lakes of the Midwest, as well as from the oceans. Frozen salmon and halibut will be in good supply.

Other plentiful foods for August are peanut butter, vegetable fats and oils.

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B-1598-jbn

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 5, 1957

RELEASE:
3 P.M., TUESDAY AUGUST 6

STUDIES ON SPOTS IN EGGS REPORTED AT NATIONAL MEETING

COLUMBIA, MO.—Minnesota poultry scientists have made a finding which may eventually help farmers avoid losses from blood and meat spots in eggs.

N. V. Helbacka, former poultry researcher worker at the University of Minnesota, reported at the Poultry Science association meeting here, Aug. 6-9, that blood and meat spots are two different things.

In the past, it was commonly thought that meat spots were simply blood spots that had darkened. But Helbacka and Milo Swanson, Minnesota poultry scientist, found this wasn't true. Through careful laboratory studies, they found that most meat spots don't contain red blood cells, which are common in blood spots.

Also, by flourescing with ultra violet lights, the scientists found that meat spots contain a material called protoporphyrin, which isn't commonly found in blood spots.

Nobody knows, so far, exactly what causes either of these spots in eggs, but this research should help in further studies, Helbacka said.

Eggs that contain such spots are eliminated before they reach retail outlets, but they cause a big profit loss to egg producers.

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B-1599-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 5, 1957

FOR RELEASE:
NOON, WEDNESDAY, AUGUST 7

OIL SPRAYING KEEPS EGGS FRESH LONGER

COLUMBIA, MO.—Farmers can market higher quality eggs by spraying them with oil shortly after they're gathered, a University of Minnesota scientist said today.

Milo Swanson, poultry researcher, told the annual Poultry Science association meeting here at the University of Missouri, August 6-9, that in recent experiments, spraying eggs with egg-processing oil kept them as high in grade as did complete dipping in oil. Both methods resulted in eggs that were much higher in quality after storage than were untreated eggs.

Spraying, though, is easier for the farmer to do, makes certain that fresh oil is used for each treatment, and costs only a fraction of a cent for each dozen treated.

Swanson compared spraying, complete dipping in oil and covering one-fourth, one-half and three-fourths of the egg surface with no oil treatment at all. The eggs were naturally clean and treated the same day gathered.

After storage for 12 days at 75-85 degrees, sprayed eggs were 95 percent grade A or better and dipped eggs were 92 percent grade A. Untreated eggs were only 12 percent grade A or better and partially-oiled eggs varied between no oiling and dipping. Untreated eggs lost five times as much weight as did sprayed or dipped eggs.

All eggs were edible after storage; the only difference was in grade.

Spraying was done by placing eggs small-end down in one-piece "filler flats" and spraying with a hand-operated insecticide-type sprayer.

Swanson said oiling helps maintain high quality because it prevents natural carbon dioxide in eggs from escaping. Carbon dioxide keeps the albumin and yolk in eggs more stable, meaning that if the gas isn't lost, the eggs stay fresh longer.

Dipping eggs in oil is a well-known practice for eggs in storage and has been used in egg processing plants. But only recently has it been considered practical for use on farms. Spraying makes that possible, Swanson said.

He emphasized, though, that oiling won't prevent spoilage in dirty eggs or spoilage that results from poor washing practices. It's most effective, he said, when done on naturally clean eggs the same day they are gathered.

COMBAT MILDEW IN BASEMENTS

Mildew that has developed on household furnishings in basements during this summer's hot, humid weather has become a serious problem in many homes.

Minnesota homemakers report mildew on rugs, upholstered furniture, leather goods, books and clothing. They complain, too, of musty odors in damp basements. Molds causing mildew flourish in places that are damp and poorly lighted. These molds can rot wood, ruin books and wallpaper, stain and discolor fabrics, leather and paint and leave a musty odor.

Don't allow humid air to strike a cold surface if you want to prevent moisture from forming, cautions Dennis Ryan, University of Minnesota extension agricultural engineer. During periods of rainy or hot, humid weather he suggests keeping entrance doors to the basement and all basement windows closed. Warm, moist air coming into the basement from ^{inside or} outside will condense on the cooler surfaces of basement walls and floors. Ryan says a good rule to remember is to keep all doors leading to the basement and all basement windows closed as soon as the temperature goes above 75 degrees or the humidity above 50 percent.

Electric dehumidifiers will do an effective job of removing moisture and combating mildew. Most of them are on wheels and can be moved from room to room and plugged into any wall socket.

Chemicals will also help to dry the air. Silica gel, activated alumina and calcium chloride, often sold under trade names, help control mold growth by absorbing moisture. Calcium chloride holds twice its weight of water and is cheaper than silica gel or activated alumina. Hang bags of calcium chloride from the ceiling with a pan underneath to catch the water. When the calcium chloride becomes saturated with moisture, it should be replaced with a fresh supply.

(more)

Wick deodorants and spray deodorants such as those with a pine scent will help remove musty odors.

Mrs. Myra Zabel, extension home improvement specialist at the University of Minnesota, gives these suggestions for treating household articles that are mildewed:

- Upholstered furniture and rugs. Take outdoors if possible and remove loose mold by brushing with a whisk broom. Run a vacuum-cleaner attachment over the surface to draw out more of the mold, then sun and air the article. If necessary, sponge lightly with thick soapsuds and wipe with a clean, damp cloth. Get as little water on the fabric as possible so the filling does not get wet. Or wipe upholstered furniture with a cloth wrung out of dilute alcohol--1 cup denatured alcohol to 1 cup water.

- Leather. To remove mildew from any leather articles, wipe with a cloth wrung out of a mixture of denatured alcohol and water, half and half, and dry in a brisk current of air. Or wash leather with a thick suds of mild, neutral soap or saddle soap, wipe with a damp cloth and dry promptly.

- Wood. Wipe mildewed floors and woodwork with a cloth dipped in water to which a little kerosene has been added.

- Wallpaper. After the wallpaper is dry, brush any dry, loose mold from the paper with a clean, soft cloth. If the paper is washable, wipe with a cloth wrung out of thick soapsuds, then with clear water. Take care not to wet the paper more than necessary.

- Books. Spread pages of books out fanwise to air them. If the books are very damp, sprinkle cornstarch or pure talc between the leaves to take up the moisture. Brush off after several hours.

To keep books in closed bookcases from mildewing, dust them at times with paraformaldehyde. Since this chemical may be irritating to some people, use it sparingly.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota

* * * * *
FOR RELEASE:
NOON, WEDNESDAY, AUGUST 7
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OIL SPRAYING KEEPS EGGS FRESH LONGER

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(more)

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62
14

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
August 5 1957

To all counties
For use week of
August 12 or later

FARM FILLERS

Early season increases in corn growth due to fertilizer have been much greater so far this summer than in previous years, according to Charles Simkins and Lowell Hanson, extension soils specialists at the University of Minnesota. In some cases, starter fertilizers doubled the height of corn before tasseling. Cold wet weather in May created nitrogen deficiencies in many soils, say the specialists, because organic matter didn't decompose well. This, together with the small plant's high phosphorus requirement, caused fertilized plants to go ahead of unfertilized corn.

* * * * *

By applying maleic hydrazide to potatoes during the growing season, Horticulturist R. E. Nylund at the University of Minnesota reduced sprouting in storage by 75 percent in recent experiments. He applied the material--also called "MH"--at 2 pounds per acre between the full bloom and post-bloom stages.

* * * * *

Better herd sires are available to more dairy farmers through artificial breeding, says Harold Searles, extension dairyman at the University of Minnesota. He points out an economic advantage, too, in artificial breeding: Keeping a herd sire costs from \$150-\$175 annually, just for feed. In addition, there's the initial expense in buying or raising a bull. Artificial breeding usually costs around \$5-\$7 per cow.

* * * * *

Increases in wage rates have made it necessary for many farmers to substitute machinery for hired labor, say Hal Routhe and Ermond Hartmans, extension agricultural economists at the University of Minnesota. They point out that while farm wage rates have tripled since 1940, total expenditures for farm labor have only doubled.

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While the U. S. is the largest exporter of agricultural and industrial commodities in the world, it's also the biggest importer, according to the U. S. Department of Agriculture. Twelve billion dollars' worth of goods were imported in 1955.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
August 5 1957

To all counties
For use week of
August 12 or after

ATT: 4-H CLUB AGENTS

COUNTY 4-H'ERS
TO STATE FAIR

A trip to the Minnesota State Fair Aug. 25 to Sept. 3 is in store for _____ (number) _____ county 4-H members who have won county honors in demonstrating, livestock exhibiting, the dress revue or the pie contest.

At the fair they will compete with other county winners for statewide honors.

Other 4-H members from the county will be represented by their exhibits, according to Club Agent _____.

Four-H members who will demonstrate at the State Fair are: (give names, addresses and clubs).

Livestock exhibitors will include:

_____ will take part in the dress revue. _____ county's champion pie baker, _____, _____, will vie for state pie queen honors.
(name) (address)

Taking part in the 4-H Share the Fun festival Wednesday evening, Aug. 28, will be _____.

Club members who will have exhibits at the fair include (give names and addresses of members and the division in which they will exhibit).

A total of 2,500 4-H'ers will attend the State Fair, one of the important events of the year for club members. Nearly 1,000 girls and boys will demonstrate on various agriculture and home economics topics on seven different platforms in the 4-H building. More than 1,200 club members will exhibit livestock in the 4-H livestock barn. Their livestock will be judged Saturday, Aug. 31. Livestock and dairy judging teams will compete Thursday, Aug. 29.

Special features of this year's 4-H program include the 4-H Key Award luncheon Tuesday, Aug. 27, honoring club members who have won 4-H key awards for leadership; the Share the Fun festival Wednesday, Aug. 28; the dress revue and naming of the queen, Thursday afternoon, Aug. 29; and the annual 4-H banquet sponsored by the Minneapolis Chamber of Commerce Thursday, Aug. 29.

All demonstrations, the Share the Fun Festival and the dress revue will be open to the public. All 4-H events will be in the 4-H building.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
August 5 1957

To all counties
For use week of
August 12 or later

PENTA TREATMENT PROTECTS WOOD

A simple treatment with "Penta"--a wood preservative--can add years to the lives of fence posts, wagon boxes, lawn furniture and other wood around the farm and home, says County Agent _____.

And how you treat the wood depends on how it's to be used, advises Marvin Smith, extension forester at the University of Minnesota.

For fence posts or poles that will be put in the ground, the wood needs to be well penetrated with penta for best results. In this case, commercial treatment is best. But if you use a home "cold soak" treatment, leave the posts in the solution for 24-48 hours.

But for wooden steps, foundation plates, feed bunkers, door sills, hay racks or any other above-the-ground use, you can simply dunk the wood into a tank of penta solution for 10 to 15 minutes and the wood will be well protected.

For wood in place, such as siding on a building, you can help prevent further decay by brushing or spraying on the penta solution.

In any case, Smith says, the wood must be thoroughly dry to be penetrated well by penta.

Penta--which stands for pentachlorophenol--is available from lumber and some paint dealers in two main forms. One is a ready-to-use solution and the other is a concentrate, to which you need to add number 2 fuel oil.

The concentrate is available in two strengths. With one, you add 1 part of concentrate to 4 parts of fuel oil. The other calls for 1 part concentrate to 10 parts fuel oil.

There's more information on penta treating in extension folder 153, "Longer Lasting Fence Posts with Penta". You can get a copy from the county agent's office or by writing to the agricultural bulletin room, Institute of Agriculture University of Minnesota, St. Paul 1.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
August 5 1957

To all counties

For use week of
Aug. 12 or later

PICKER-SHELLER
WORKS OUT WELL
FOR CORN HARVEST

A picker-sheller and a mechanical drier can reduce harvesting losses in the fall corn crop, according to County Agent _____.

The picker-sheller is a piece of equipment that picks the corn and shells it in one operation, according to John Strait, R. V. Keppel and V. M. Meyer, agricultural engineers at the University of Minnesota.

In tests conducted at the University's Rosemount Agricultural Experiment station in recent years, they found that by using both devices, it was possible to harvest the corn crop earlier. And early harvesting means less corn loss.

Based on these tests, the agricultural engineers say farmers using this equipment can start harvesting corn when the kernel moisture of the standing corn has reached 26 percent. Then sheller losses won't exceed 2 percent and kernel damage should be low enough for corn to grade No. 2.

For feed grain, you can start harvesting at about 28 percent moisture content.

The engineers found that the picker-sheller could be adjusted so that cracked corn and foreign material were low enough to meet grade requirements for No. 1 corn.

Most of the loss that did occur in the University tests was made up of gathering and snapping roll losses--which would have been just as great with a conventional corn picker.

In general, the higher the moisture content of the kernels at harvesting time, the lower the total harvesting loss, the engineers found. Total loss was slightly more than 4 percent on 30 percent kernel moisture corn and about 7 percent at 26 percent moisture later on in the season, during one year's tests.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
August 5 1957

To all counties

For use week of
August 12 or later

STILBESTROL NEEDED IN BEEF RATIONS

Stilbestrol is a "must" for getting the most profit out of beef cattle feeding these days.

R. E. Jacobs, extension livestock specialist at the University of Minnesota, says that in experimental work around the country, feeding stilbestrol to beef cattle has increased daily rate of gain by an average of 17 percent.

Also, on the average, the experiments show you can make a 12 percent saving in amount of feed required for a pound of gain, by using stilbestrol.

Stilbestrol is so inexpensive that a beef farmer can't afford to pass up the advantages he would get from using it, Jacobs points out. If stilbestrol is mixed with the protein concentrate at a level which will provide 10 milligrams of this drug to each pound of concentrate, the added cost of the material is just \$8.00 per ton.

Figured another way, that's less than half a cent per animal daily.

Recommended feeding rate for stilbestrol is 10 milligrams per animal daily if it's started when the animals weigh about 700 pounds apiece. But some experiments show, Jacobs says, that if you start feeding it when the steers and heifers weigh only 400 pounds each, you can feed just 5 milligrams per animal daily for the entire feeding period and get just as good results.

To use stilbestrol, tell your feed dealer how much concentrate you're feeding daily. Then he can mix the material so that the animals will get the recommended rate.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
August 5 1957

To all counties
For use week of
August 12 or after

ATT: HOME AGENTS

**FREEZE, CAN
EARLY APPLES**

Freezing, canning, sulfuring--these are all satisfactory ways to preserve the early apples many _____ county families have in such abundance in their backyards this year, says Home Agent _____.

Most firm-fleshed varieties of apples suitable for pie and sauce freeze well. Freezing tends to soften textures.

The University of Minnesota food processing laboratory recommends this method of preparing apples for freezing.

Peel and cut apples into pie slices. To prevent darkening, submerge the slices for not less than 5 minutes in a sodium bisulfite solution prepared by dissolving 1 teaspoonful of sodium bisulfite (U. S. P. grade) in a gallon of cold water. Mix the solution in glass, earthenware, stainless steel or enameled container. Drain, then pack in sugar, using 5 to 7 pounds of apple slices to 1 pound of sugar, or about 10 cups of sliced apples to 1 cup of sugar. Sprinkle the sugar evenly over the slices, allow to stand for a few minutes or until the sugar is dissolved into fruit juice, then stir carefully until each slice is coated with sugar solution before filling the containers. Freeze immediately. The sugar may be omitted for those who do not eat sweetened fruits.

Sodium bisulfite may usually be obtained at drug stores or locker plants. If it is impossible to get sodium bisulfite, the University food processing laboratory suggests this alternate method:

Soak apples for 15 minutes in a weak brine solution, using 1/2 cup of salt to a gallon of water. Drain. Prepare a sugar syrup of 2 cups sugar, 1/2 teaspoon ascorbic acid and 1 quart of cold water. Fill containers about a third full of the syrup and slice apples into it. Be sure the apples are covered.

The sodium bisulfite gives the best results, keeping apples bright and crisp.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 6, 1957

SPECIAL TO WILCOX
County Agent Introduction

Soils Improvement is an important need of agriculture in northern Minnesota. That's the theme of the discussion here between Edward Becker, right, area rural development agent for the Minnesota Agricultural Extension Service, and Curtis Overdahl, University of Minnesota extension soils specialist. Becker's office is at the University's North Central School and Experiment Station, Grand Rapids. He leads rural development work in Aitkin, Beltrami, Cass, Clearwater, Cook, Crow Wing, Koochiching, Lake, Lake of the Woods and St. Louis counties. He was appointed to this position in October, 1956, was Carlton county agent for three years before that.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 7, 1957

FOR RELEASE:
3 P.M., FRIDAY, AUGUST 9

TALLOW, SOYBEAN MEAL, AID LOW-PROTEIN POULTRY DIETS

COLUMBIA, MO.--Tallow, when added to corn-soybean meal diets with low protein levels, increased growth in chicks in recent University of Minnesota research.

This finding was reported here today by Paul Waibel, poultry scientist from the University of Minnesota, during the annual meeting of the Poultry Science association, Aug. 6-9.

Normally, Waibel said, when extra energy, such as in tallow, is added to a low-protein diet, the chicks would be expected to make less, not more, growth.

He compared chicks fed rations that contained 14.5 percent protein, but that contained different sources of extra energy, with chicks that received conventional rations. In each case when extra energy was added, Waibel also added enough additional protein to keep the protein level up to 14.5 percent.

Growing chicks are usually fed rations containing about 22 percent protein. Levels were kept lower in these tests to test the effect of added energy sources.

Waibel compared corn oil, dextrose and "bleachable fancy" grade tallow as extra energy sources. He also compared soybean meal and corn gluten meal as sources of extra protein needed to make up the protein deficiency when extra energy was added.

Chicks were fed on these rations until they were 4 weeks old.

Birds that received 10 percent tallow and stepped-up soybean meal outgained chicks with no tallow by 10.1 percent. But chicks receiving tallow and corn gluten meal actually had a 1.4 percent reduction in growth.

Also, chicks fed 10 percent corn oil and increased soybean meal had a 2.9 percent growth reduction. Similarly, with corn oil and corn gluten meal, the reduction was 14.5 percent, compared to birds fed conventional diets. There were also growth reductions in birds that received dextrose as the energy source, with the protein deficit made up with either soybean or corn gluten meal. At higher protein levels, though, corn protein seemed to be just as effective as protein from soybean meal.

Waibel said that although this work was done with chicks, it's likely that these feeds have a similar effect on laying hens, which are normally fed lower protein diets.

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B-1602-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 7, 1957

A FARM AND HOME
RESEARCH FEATURE

Immediate Release

PLASTIC GREENHOUSES SHOW PROMISE FOR LIMITED USE

A winter flower garden in your back yard--that could be possible with a plastic greenhouse, one of the innovations in the floral business.

R. E. Widmer, floriculturist at the University of Minnesota, has successfully raised several kinds of "bedding plants"--such as petunias, zinnias and marigolds--in late winter and early spring in plastic-covered greenhouses.

These structures aren't expected to replace conventional glass greenhouses, but Widmer says they do look promising for home use or for commercial florists who need additional but temporary growing area for flowers.

Widmer first tried a plastic greenhouse in winter, 1955-56. That year, he covered an 18 by 20-foot greenhouse frame with a layer of "4 mil" polyethylene plastic on the outside of the studs and rafters and with a layer of "2 mil" on the inside. "Mil" means "millimeter" and is used to measure thickness of the plastic.

The structure came through the winter well, but the plastic was completely deteriorated from wind and sun by August, 1956. Then last winter, Widmer compared 2, 4, and 6-mil polyethylene and 5-mil polyflex plastic as outer covering on the structure. Polyethylene is a cloudy plastic and polyflex is clear.

An advantage of polyflex is that it lets through as much light as does glass. Polyethylene cuts the light down about 10 percent more than glass.

By this summer, Widmer found the 2-mil polyethylene on the south side of the house was completely gone to shreds and the 4-mil material was ruined in some places. The 6-mil material, though, is still holding up well and may possibly be used another winter.

The 5-mil polyflex was badly ripped at the end of the winter. Only the 10-mil size of this material is recommended for greenhouses now.

Plastic greenhouses can be constructed for only a fraction of the cost of glass ones. But the plastic needs to be replaced fairly often and this type structure isn't as sturdy as a conventional greenhouse, Widmer explains.

One problem is that plastic-covered structures are more air-tight than glass greenhouses. Therefore, they need to be well-ventilated to prevent excessive moisture condensation.

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B-1603-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 7, 1957

Immediate Release

ASTER YELLOWS DISEASE ATTACKS STATE FLAX FIELDS

Aster yellows disease this summer is making the heaviest attack to date on Minnesota flax fields, reports Herbert Johnson, extension plant pathologist at the University of Minnesota.

There are signs of the disease in all areas of the state where flax is grown.

However, Johnson, says, no fields have been noted so far where damage from aster yellows is so great that the field shouldn't be harvested.

Where the disease hits, flowers stay green instead of turning blue and bolls fail to develop. However, a single plant may have some diseased flowers and still have others that develop normal bolls. Yield reduction is usually proportional to the number of diseased flowers.

The disease is spread by leafhoppers. The virus of the disease can live from one year to the next on perennial weeds, such as thistles.

From what is known so far, aster yellows doesn't affect the quality of flax seed for oil. Nor does the virus carry over to the next year on flax seed from infected fields.

The only practical way to control the disease is through resistant varieties. All flax varieties now recommended for Minnesota are susceptible to aster yellows, but plant breeders at the University are searching for varieties that will have some resistance to the disease.

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B-1604-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 7, 1957

Immediate Release

CUTLINE: Margaret Mallak, Winsted, and Donavan Johnson, Atwater, learn to use a camera effectively in one phase of the training they are receiving before going overseas as International Farm Youth Exchange delegates.

MINNESOTA YOUTHS TO INDIA, GUATEMALA

Minnesota will send two "grass roots ambassadors" to the Far East and Central America this month.

Margaret Mallak, 22 Winsted, will sail for India from New York City Aug. 15 on the S. S. Independence. Donavan Johnson, 24, Atwater, will fly to Guatemala from Miami, Florida, Aug. 28. Both will spend several days in Madison, Wisconsin, and Washington, D. C., in orientation before leaving this country.

The two young people are among five International Farm Youth Exchange delegates from Minnesota who will live and work with farm families in foreign countries this year from four to six months. Miss Mallak is the first young woman from Minnesota assigned to India as an IFYE delegate.

Genevieve Carter, Bemidji, is now in Sweden and Duain Vierow, North St. Paul, is in the Netherlands, both as IFYES. A fifth IFYE from Minnesota, Iver Aal, Starbuck, will go to Costa Rica in October.

Miss Mallak taught art and English in Menahga this past year. She holds a B. A. degree from Alverno college, Milwaukee. She was an active 4-H club and Rural Youth member in McLeod county, where she grew up on a 120-acre farm. She and her parents were hosts this summer to Aktadar Arjumand, IFYE from India.

Johnson has been attending State college, St. Cloud, where he is majoring in industrial arts and agriculture. He rents and operates a 120-acre farm with his brother. He was a 4-H club member in Kandiyohi county for 11 years and a member of the county Rural Youth.

The IFYE program, designed to promote better understanding among rural young people, is a two-way exchange sponsored by the National 4-H Foundation and the Agricultural Extension Service. This summer Minnesota will be host to 15 rural young people from 11 different countries in the return phase of the exchange.

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B-1605-jbn

UNIVERSITY FARM AND HOME NEWS
INSTITUTE OF AGRICULTURE
UNIVERSITY OF MINNESOTA
ST. PAUL 1, MINN.
August 8, 1957

Special to the Gopher Grad

Atomic energy is doing some important "detective work" at the University of Minnesota.

For with radioactive isotopes, scientists at the Institute of Agriculture are tracing out many of the mysteries of life under the soil and inside plants.

The reason for this work, as with any agricultural research, is to answer many of the complex problems facing Minnesota and other American farmers today.

As A. C. Caldwell, University soils scientist, explains it, "radioactive tracers are one more good tool that help us unlock many of the doors to unknown problems connected with soil and plant growth."

"Being able to 'tag' a plant food and follow it through its various process in the soil and the plant itself gives us research workers an insight into the plant life process that we never had before," he points out.

"As soil scientists," Caldwell continues, "our main business is predicting what will happen to certain plants on certain soils treated in a certain way. To be able to do that, we must be able to relate the information we learn to different soil conditions. And with radioactive isotopes as tracers, we can find out just what happens to fertilizer, for example, under any condition or in any soil we wish to test."

Caldwell did some of the earliest work with radioactive materials on the St. Paul campus. In the late 1940s, he and his co-workers started using P_{32} -- a radioactive phosphorus isotope -- to determine how much of the fertilizer applied to fields is actually taken up by plants. They did this by applying the "tagged" phosphorus in fertilizer to fields, then checking the plants later on with a Geiger counter. This technique was tried with different chemical forms of phosphorus fertilizer, to see if different solubility levels of the fertilizer made any difference in final growth.

add 1 radioactive tracers

There are several advantages in using radioactive materials, compared to older research methods, Caldwell explains. "Without using tracers, the only way you can evaluate a fertilizer is by measuring plant growth or, by complete laboratory analysis, finding out how much total phosphorus is in the plant. The tracer technique takes us one step farther; it distinguishes between phosphorus in the plant that came from fertilizer and that from the soil. And that's the information we really need in evaluating any fertilizer."

"Therefore," Caldwell continues, "if you're comparing one fertilizer against another, being able to check the total uptake of fertilizer phosphorus by plants tells you which fertilizer is better, regardless of plant growth."

One of the first things Caldwell and other soils scientists did with the radioactive phosphorus was to test applying phosphorus fertilizer "broadcast" on alfalfa fields. They used different application rates, different chemical compounds containing phosphorus and applied the fertilizer at different times.

By analyzing phosphorus uptake in plants with a Geiger counter, the soils men made three findings important wherever legumes are grown in Minnesota: First, that broadcasting fertilizer was a good practice for alfalfa; second, that the heavier the rate, the better the plant used fertilizer phosphorus, and third, plants vary in uptake of phosphorus depending on the chemical source of the nutrient.

One question farmers often have is, "How much plant food is there in each acre of my fields?" Conventional soils tests give the farmer a good idea, but radioactive phosphorus helps the soils scientist know more exactly how much phosphorus is in the soil. This technique, Caldwell says, also serves as a good check on the routine laboratory tests.

This check is made by tagging the fertilizer phosphorus, then comparing the amount of fertilizer phosphorus the plant absorbs with the total amount of phosphorus in the plant. Subtract the difference, and you know how much came from the phosphorus originally in the soil. Then with some careful calculations, the scientists can closely

add 2 radioactive tracers

figure the amount of soil phosphorus in each area. The same type of test, Caldwell states, can be used on sulfur.

One recent finding with tagged fertilizers may be a big help to hybrid corn breeders. A hybrid is produced from crossing two or more inbred lines of corn. Inbred lines are selected according to their beneficial characteristics.

Caldwell, along with agronomists E. H. Rinke and Duane Linden, found out that these inbred lines seemed to vary in how much phosphorus they take up from the soil. Early indications also showed that the difference may be inherited, meaning that corn breeders might be able to select inbred lines according to their ability to use fertilizer.

To make this finding, the scientists raised some 50 different inbred lines of corn on soil fertilized with tagged phosphorus. Again, they checked the plants with the Geiger counter, found that some inbred lines took up nearly twice as much fertilizer phosphate as did others. They also found that when two high-phosphate-using inbreds were crossed, the resulting hybrids also tended to be high-phosphate users.

In other tests, Caldwell has found, with the help of the isotopes, that different kinds of nitrogen compounds in the fertilizer have different effects on how much fertilizer phosphorus a corn plant will absorb. He found that the ammonium ion -- in ammonium nitrate fertilizer -- increased phosphorus uptake from superphosphate, which is the most common source of phosphate fertilizers used on Minnesota farms.

The same kind of research with tagged chemicals is helping other scientists on the St. Paul campus to probe the complexities of "iron deficiency chlorosis". This condition is a yellowing that results either from a lack of iron in the soil or from the fact that the iron is tied up in a chemical form that plants can't use.

J. M. MacGregor, another soils researcher, and A. J. Linck, plant physiologist, have been experimenting with "Chelates" (pronounced key'-lates) which are compounds that hold iron in a form that plants can readily use. "Chelate" comes from a Greek word meaning "claw".

add 3 radioactive tracers

So far, MacGregor has been able to correct the chlorosis problem by adding chelated iron, both to the soil and to leaves of plants. Both systems work, but so far the cost of the treatment has been prohibitive as far as large-scale use is concerned. In these tests, MacGregor used tagged iron in the chelates, and was again able to check uptake of iron in the plants with a Geiger counter.

Linck is also using tagged chemical weed killers to find out how these chemicals move through plants. The chemical is applied, then the plant is "counted" with the Geiger counter at intervals later on to see what parts of the plant contain the chemical.

How far and how fast plant roots grow in the soil are other questions that tagged fertilizers are helping soils scientists answer. Contrary to what you might think, you can't always study root growth simply by pulling the plant out of the ground. Some roots are so minute that they are difficult to locate. Also, simple inspection doesn't tell the scientist just where the plant is getting its food from.

In current experiments, the soils men are placing tagged fertilizers at known distances from the center of the plant roots near young plants. Then they check the plant periodically with a Geiger counter. As soon as the plant is "hot" -- radioactive -- the plant has absorbed the fertilizer and the scientist has a better idea of how fast the roots grow.

Soils research workers are only one group of scientists on the St. Paul campus using isotopes as tracers. And the tracer technique is just one of two main methods by which nuclear energy is used in agricultural research. The other involves bombarding cells with X-rays, gamma rays or neutrons to produce mutations, basic structural changes which are then inherited from then on.

Plant breeders, such as E. R. Ausemus, for example, are irradiating wheat seeds to create mutants that will give rise to strains or varieties that are more resistant to stem rust -- an important disease in wheat crops -- than the parent plants were. Similar studies are being made with fruits and vegetables by A. N. Wilcox, University

add 4 radioactive tracers

horticulturist.

Using the tracer technique, University veterinary scientists are injecting irradiated carbon into sick and healthy cows in a study of ketosis, a condition that results from certain poisonous chemicals accumulating in excessive amounts in certain parts of the cattle at calving time. Ketosis causes cows to get rough coats, lose appetite, abort or even die. By tracing the movement of tagged carbon in sick and healthy cattle, veterinarians can find out where poisons are formed, where they move and where they accumulate.

A good deal of the work with nuclear energy on the St. Paul campus is part of the "Atoms for Agriculture" project, financed by a grant of \$20,000 annually for five years. The grant was made to the Minnesota Agricultural Experiment Station by four power companies: Northern States Power company, Minneapolis; Minnkota Power Cooperative, Inc., Grand Forks, N. D.; Otter Tail Power company, Fergus Falls; and Central Power Electric Coop., Inc., Minot, N. D.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 9, 1957

SPECIAL TO FARM MAGAZINES

BEEF-CATTLE GRASSLAND
FIELD DAY SET FOR
SEPT. 19

A round-up of recent research on beef cattle production and a look into the future will highlight the annual Beef-Cattle Grassland Field Day Thursday, Sept. 19, at the University of Minnesota's Rosemount Agricultural Experiment Station.

A. R. Schmid, University agronomist, will compare weedy vs. daily rotational grazing. He will report on tests in which beef cattle have been pastured in lots big enough for a week's grazing, compared to pastures where the cattle have had pasture just large enough for one day at a time.

"Pasture fertility and beef production" will be the title for a report by P. M. Burson, University soils scientist. He will discuss fertility trials and whether fertilizing pastures pays off in increased gains, less bloat or in other benefits for beef cattle.

The bloat problem and what is known about it now will come under scrutiny by C. E. Stevens, veterinary research worker at the University.

A trio of University livestock scientists--A. L. Harvey, W. J. Aunan and O. E. Kolari--will report on beef cattle feeding experiments. During the past year, the livestock men have been running experiments on stilbestrol and terramycin, stilbestrol--fed and implanted--and dynafac, stilbestrol and grain on pasture, linseed oil meal and soybean oil meal and silages for wintering calves.

One of the features of the feeding trial reports will be on low level stilbestrol implants. Last year, the livestock researchers found that implanting stilbestrol increased gains in beef cattle, but, at the levels used, resulted in unfavorable "side effects"--high tailheads and low backs--on the cattle.

During the past year, the cattle have received stilbestrol implants at 10, 20 and 30 milligram levels, to find out whether it's possible to still get the gain

add 1 Beef-Grassland Field Day

increases but eliminate the side effects.

"Beef cattle prospects for 1958" will be the final topic of the event, and will be discussed by N. K. Carnes, manager of the Central Livestock association, South St. Paul.

The Beef-Grassland project at the Rosemount station was started in 1952. Since then, the livestock scientists, soils men and agronomists doing the work have made a number of findings important to beef producers around Minnesota.

In 1955, for example, gains of 222.2 pounds of beef per acre were made on fertilized pastures grazed in rotation for 118 days. On unfertilized pastures, the gains were 161.1 pounds. They also found that dry lot feeding following summer pasturing raised carcass grade, increased dressing percentage, selling price per hundred and margin per steer over feed cost, in proportion to the length of time the animals were fed in the dry lot up to 120 days.

On fertilized pastures, the trials have shown, the cattle will graze dropping spots more uniformly than on unfertilized areas. Also, fertilizing tends to boost the grasses in the pasture mixture. And keeping the grasses up to at least 50 per cent of the mixture seems to help prevent bloat.

Last year, tests at the station showed that alfalfa silage was about 80 per cent as efficient as was corn silage in producing gains in beef cattle. Another test showed that it took about 3 pounds alfalfa hay and 3 pounds of corn and cob meal, along with all the legume and silage, or silage alone, that a calf would eat, to make a pound of gain daily.

All interested persons are invited to the Sept. 19 field day. The event will start at 1 p.m.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minn.

Special file
Special to Roseau County

(with mat)

Aug 157

**NEW HOME AGENT
IS FROM CANADA**

New home agent for Roseau county is Claudia Macdonald of Sanford, Manitoba. She will join the county extension staff on *Sept 1*

Since July 15, Miss Macdonald has been serving as assistant home agent in Marshall county, receiving on-the-job training in extension methods. She received her bachelor of science degree with a major in home economics from the University of Manitoba in May.

While at the university Miss Macdonald was active in the Home Economics council, was University year book representative and participated in intervarsity curling.

-jbn-

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 12, 1957

Special to Twin City Outlets

UNIVERSITY OF MINNESOTA RECEIVES GRANT FOR SKIN DISEASES ON DOGS

A grant of \$2,000 has been presented to the University of Minnesota for research on canine skin diseases.

The grant was made by the Mark L. Morris Animal Foundation, Denver, Colo., and is part of a program of nation-wide research projects on dog's skin diseases. Purpose of the program is to establish factual information on these diseases.

Minnesota research on this project will be conducted by Robert M. Schwartzman, research worker in the division of veterinary medicine and clinics in the University's College of Veterinary Medicine on the St. Paul campus. He will study more than 300 dogs with skin disease during the next 15 months.

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-pjt-

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 12, 1957

SPECIAL:

BOB JOHNSON, DISPATCH

Caption: R. M. Schwartzman, veterinary research worker at the University of Minnesota, performs a "biopsy" examination on a dog as part of a study on canine skin diseases.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minn.
August 12, 1957

U Professor Elected to National Office

Amy Jean Holmblade, associate professor of home economics education, University of Minnesota, has been named chairman-elect of the home economics teacher education section of the American Vocational association. She was elected at the recent meeting of the association in Philadelphia (Aug. 6-9).

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
August 12 1957

To all courties
For use week of
August 19 or later

FARM FILLERS

There are some special advantages in fall liming, says Paul Burson, soils scientist at the University of Minnesota. Dealers can make deliveries at this time of year, and you're more certain of getting on roads and fields now than may be possible next spring.

* * * * *

In recent University of Minnesota experiments, spraying eggs with oil kept them much higher in grade after 12 days of storage. Sprayed eggs were 95 percent grade A or better and untreated eggs were only 12 percent grade A, according to Milo Swanson, University poultry researcher. The spraying can be done on the farm and is inexpensive.

* * * * *

Tallow, when added to corn-soybean meal diets with low protein levels, increased growth in chicks in recent University of Minnesota poultry research.

* * * * *

There have been signs of aster yellows disease in flax in all areas of the state where that crop is grown this summer, according to Herbert Johnson, extension plant pathologist at the University of Minnesota. However, he adds, no fields have been noted so far where damage from aster yellows is so great that the field shouldn't be harvested. Where this disease hits, flowers stay green instead of turning blue and bolls fail to develop.

* * * * *

Blood and meat spots in eggs are really two completely different things, University of Minnesota poultry scientists have discovered. In the past, it was commonly thought that meat spots were simply blood spots that had darkened. Now that the difference is established, scientists have more to go on in helping farmers find ways to eliminate both conditions in eggs from their flocks.

* * * * *

By 1975, the U. S. Department of Agriculture estimates, American farmers will use up to 100 percent more fertilizer than is being used today. * * * * *

From: Jo Nelson
107 Coffey Hall
Information Service
Institute of Agriculture

Special to Minnesotan
Aug. 13, 1957

BEST BUYS PROGRAM HELPS CONSUMERS

When will tomatoes be the best buy for canning? Can I get strawberries now for freezing? Are peaches from Colorado on the market yet?

These are among scores of questions from Twin Cities homemakers that the University's Best Buys program helps to answer from June through September.

Each May the Best Buys program starts rolling. On May 20 this year, the Best Buys committee met at the Minneapolis Municipal Market with S. H. Sevier, federal-state market news reporter, and Emmett Heenan, market master, who cooperate in carrying out the program. Representing the University's Agricultural Extension Service were Harold Pederson, extension economist in marketing; Mrs. Eleanor Loomis, extension consumer marketing agent; George Roadfeldt, Hennepin county agricultural agent; Roger Conklin, Ramsey county agricultural agent; Orrin C. Turnquist, extension horticulturist; and Mrs. Jo Nelson, assistant extension editor. It was the committee's job to draw up plans for implementing the program which would start in June when Minnesota market gardens begin producing ~~and continue through the gardening season.~~
program

The Best Buys ~~Service~~ is not new. The University Agricultural Extension Service initiated the program 16 years ago to help two groups of people—consumers and market growers. Consumers are often at a loss to know when supplies of fruits and vegetables are at their peak for canning and freezing. One purpose of the program, therefore, has been to keep consumers supplied with this type of information, as well as to alert them to the plentiful supplies and the daily good buys in Minnesota-grown and shipped-in fruits and vegetables. Another objective of the service is to help market growers and retailers by moving produce, particularly when it is most abundant.

Originally, the program was concerned only with locally grown produce. Now it has been extended to include shipped-in fruits and vegetables.

The Agricultural Extension Service depends heavily upon the Federal-State Market News Service of the U. S. Department of Agriculture for cooperation in reporting the Best Buys. Here's how the program works:

Each morning — about 5 a.m. — from June through September, Mr. Sevier, the federal-state market news reporter, goes to the Minneapolis Municipal Market and at 65 Lakeside avenue. There he talks to growers/ looks over fruits and vegetables in the rows of stalls where market gardeners are selling produce to retailers. He checks on supply and quality and obtains price quotations from which he determines the best buys for the day and establishes the budget rating on the produce. Next on his schedule is a trip to the wholesale fruit and vegetable market where he gets the same type of information on shipped-in fruits and vegetables. At 8 o'clock he telephones his report on homegrown and shipped-in produce to the Information Service on the St. Paul campus, which in turn relays the news on daily good buys by phone to Twin Cities newspapers and radio stations.

That the market report is in demand by consumers is evident from the fact that the Minneapolis and St. Paul afternoon papers, seven radio stations and one television station carried the daily best buys this summer. At least three of the stations used the report on the air twice during the day.

Ease with which the homemaker can pick up the daily best buys information is perhaps one of the reasons for the effectiveness of the program. She has only to tune in to any of seven radio stations or one TV station at a specific time during the day to pick the report off the air. Or she can wait for her afternoon newspaper before she makes out her shopping list.

To make the program more helpful to consumers, from time to time Mrs. Nelson prepares special stories for all daily papers and radio stations in the state, giving peak dates for various fruits and vegetables with canning, freezing and other utilization tips. J. D. Winter and Shirley Trantarella of the

food processing/laboratory furnish directions on freezing, and extension nutritionists Grace Brill and Verna Mikesh supply tips on canning. When crops have been damaged and supplies are short, the homemaker is given information on the most advantageous time for canning and freezing products limited in supply.

Mrs. Loomis' job as extension consumer marketing agent -- helping homemakers with their food shopping problems -- ties in perfectly with the Best Buys program. She appears frequently on radio and TV shows highlighting the best buys and often talks to groups of women on better food buymanship. Each Thursday at 10:45 a.m. she is the featured guest on Mrs. Nelson's Hi-Lights in Homemaking program on KUOM. Her tips on best buys for week-end shopping, menu suggestions and specific information on how to buy and use foods in current supply are a boon to homemakers.

So, too, is a series of leaflets she has prepared, published by the Agricultural Extension Service, giving information about particular products to make for wiser buying. "Know the Best Buys in Fruits and Vegetables," for example, gives peak dates when specific fruits and vegetables are in supply, yields of canned or frozen product you can expect from a particular unit such as a lug of peaches, and shopping tips for quality fruits and vegetables. Other leaflets in the series include "Know the Eggs You Buy," "Know the Milk You Buy," "Know Your Minnesota Apples," "Know Your Minnesota Potatoes," "Know the Meat You Buy," "Know Fats and Oils," "Know Bread and Other Cereals," "Know the Poultry You Buy," "Know the Processed Food You Buy." To date, 265,000 copies of these leaflets have been printed. "Know Your Minnesota Apples/" is now in its fourth printing.

Mrs. Loomis also gets across her message on better buymanship through black and white 16 millimeter sound-cs-film prepared especially for television and for showing at county extension meetings. In a series of five films, 5-6 minutes long, she talks to consumers about getting the most from the food dollar when buying apples, meat, bread, eggs, milk. Cooperating in planning and producing the films were Ray Wolf, extension information specialist, radio;

Gerald McKay, extension visual aids specialist; and the Audio-Visual Education Service.

The University's Best Buys program has many facets. All of them, however, are aimed at helping the consumer solve the ever-present problem of keeping the food budget in line through better buymanship.

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The report on good buys appears daily in Twin Cities newspapers.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 13, 1957

Immediate Release

MINNESOTA TOPS NATION IN PERCENT LAMBS SAVED

For the second year, in a row, Minnesota has topped the nation in percent of lambs raised.

R. M. Jordan, University of Minnesota livestock scientist, points to a recent report from the State-Federal Crop Reporting Service, showing that Minnesota sheep growers saved 118 lambs for every 100 ewes up to July 1, 1957. That's compared to 94 percent for the nation as a whole. Last year Minnesota sheepmen saved a 119 percent lamb crop.

But there's still room for improvement, Jordan points out. Many topnotch sheepmen consistently raise a 135-150 percent lamb crop, thanks to better management and good care at lambing time.

Total lamb production in Minnesota was also up this year in Minnesota. There were 702,000 lambs produced--15 percent more than the 1946-55 average and 1 percent above last year.

Five other west central states--Iowa, Missouri, North Dakota, Nebraska and Kansas--also showed a 4 percent increase in total lamb production over a year ago.

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B-1606-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
August 12 1957

To all counties

For use week of
August 19 or later

EATING HABITS
AFFECT FARMERS
IN MIDWEST

The American housewife is engineering some really significant changes in Midwest agriculture.

There is more competition than ever for the food dollar and the lady who does the weekly shopping is mighty choosy about what she buys, says Luther Pickrel, extension agricultural economist at the University of Minnesota.

One of the best examples of this effect of the food shopper is pork, which has slipped in demand in comparison with other meats. During the past 40 years, beef has constantly been bringing higher prices in relation to pork.

Consumption of total meat in comparison to pork has been going up, too. For example, from 1925-29, consumers ate 2.23 pounds of total meat for every pound of pork. Now, 2.87 pounds of total meat are consumed for every pound of pork eaten.

One reason, of course, has been that consumers are steering away from fat pork. Studies around the country have shown that consumers prefer lean to fat pork, and prices of pork cuts containing much fat have gone down over the years, in comparison to leaner cuts. The waste involved contributes to the spread between farm and retail prices, and lower farm income.

The best answer farmers have to this problem is the meat-type hog, which is rapidly gaining popularity in Minnesota and elsewhere in the Corn Belt. There have also been important gains in efficiency of production in hogs. However, efficiency is also increasing in other forms of livestock and poultry.

The number of sows farrowing on U. S. farms has gone down since the 1920s, yet pork output has been about 30 percent larger--mostly due to raising more pigs per litter. Feed efficiency gains have helped, too, and there is a trend toward more specialization on hog farms.

While the future outlook for pork production isn't entirely clear, there's no reason for the corn producer to be pessimistic, Pickrel says. Should hog raising decline more, there could possibly be an expansion of "corn-fed" beef raising in this area. More corn could also be sold as grain to areas where it would be used as poultry feed. These two outlets are already expanding and could likely grow more rapidly than the demand for pork would decline, Pickrel says. * * * * *

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
August 12 1957

To all counties
For immediate use

GRASS WATERWAYS
HELP SAVE SOIL

Grassed waterways aren't wasted land, says County Agent _____.

Establish them this summer and fall wherever they're needed, and they will give you good hay and pasture, beside erosion protection. Waterways are needed on any small draws or channels extending up a slope, or across fields where water runs in volume.

Waterways fit into any good soil management plan, along with fertilizing, liming, crop rotation, contouring and terracing, according to Paul Burson, University of Minnesota soils scientist. He recommends this procedure for building waterways:

Plow in the small gullies, with a back furrow, until the waterway has a broad "saucer" bottom. That way, water will spread and not concentrate. The waterway should be at least 2 rods wide, but the wider the better.

Fertilize heavily. Use 300 - 500 pounds of a complete commercial fertilizer, such as 5-20-20 or a similar mixture. Put on at least 200 pounds of ammonium nitrate--33-0-0-- or an equivalent amount of nitrogen in a different fertilizer. This is important. Areas needing waterways are usually subsoil low in nitrogen and general fertility.

Seed a legume-grass mixture. A good one is alsike clover, red top, brome-grass and timothy. Use a companion crop such as oats. Finally, spread a light application of manure or straw and anchor this material into the soil by disking "zigzag" from one side of the waterway to the other.

Make some repairs next spring if the waterway is winter-damaged. Keep the waterways clipped next year so that no residue piles up. Otherwise, the water may concentrate in one small area and start a gully. # # # # #

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
August 12 1957

To all counties
For use week of
August 19 or later

A U. of M. Ag and Home Research Story

STILBESTROL FEEDING
IS COMPARED WITH
IMPLANTING METHOD

Orally feeding stilbestrol is a good way to give this synthetic hormone to beef cattle, according to County Agent _____.

But in tests at the University of Minnesota in 1955 and '56, implanting actually gave faster and more efficient gains.

Here's the difference, though: Orally fed steers sold at higher prices than did implanted steers from this particular experiment. The reason was that implanted steers showed more carcass shrinkage, graded lower, had less eye muscle and showed other unfavorable "side effects," according to A. L. Harvey, W. J. Aunan and Whitney Lindwall, University livestock scientists.

In this experiment, orally-fed steers received 10 milligrams stilbestrol daily, while implanted steers received 36 milligrams in one dose at the start of the trial. Implanting means placing a stilbestrol-containing pellet under the skin in back of the animal's ear.

Implanted steers in these tests gained 2.75 pounds daily, compared to 2.64 pounds for orally-fed steers and 2.2 pounds for steers that received no stilbestrol. Both methods of giving steers stilbestrol resulted in 12-13 percent less feed needed for 100 pounds of gain. However, due to the unfavorable side effects, the implanted steers brought more than \$8 per head less at market time than the orally-fed cattle.

It may be possible, the livestock men point out, that the side effects from implanting won't be as marked at lower levels. So this year, they are comparing steers at 10, 20 and 30 milligram levels to see if side effects can be avoided and still get as high increases in gains and feed efficiency.

The scientists are also testing stilbestrol fed in combination with terramycin and with dynafac, two different feed additives.

Results of these feeding experiments will be reported at the annual Beef-Cattle Grassland Field Day, Sept. 19 at the University's Rosemount Agricultural Experiment station. All interested farmers are invited to attend.

* * * * *

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
August 12 1957

To all counties
For use week of
August 19 or after

ATT: HOME AGENTS

DON'T OVERCOOK FRESH VEGETABLES

Spare the time when you cook green vegetables. And once cooked, serve the vegetables promptly.

Fresh green vegetables need not take on a washed-out look if they are cooked properly, says Home Agent _____. Cooked until just tender but still slightly crisp, and cooked under cover, they will look and taste good enough to bring calls for second helpings. But it's important, also, to serve the vegetables immediately; otherwise they lose flavor.

Cooking vegetables in the pressure saucepan is a quick method and one that will preserve vitamins. Boiling is another familiar and easy way to cook green vegetables, but to keep fresh color and flavor, take care not to overcook.

For boiling, use lightly salted water. Use as little water as practical and bring it to a boil before adding the vegetable. Cover the pan and when the water boils again, reduce the heat.

The water clinging to the leaves after washing spinach, chard or beet greens may be all that is needed in cooking, say extension nutritionists at the University of Minnesota. Put the greens into the pan, adding salt in layers throughout. Reduce heat after the steam begins to escape and cook slowly to prevent sticking.

Some green vegetables such as shredded cabbage or spinach leaves may require as little as 3 minutes to cook tender. Green lima beans may take 20 to 30 minutes, snap beans 15 to 30 minutes.

For a 5-minute cabbage, heat 3 cups of milk. Add 2 quarts of shredded cabbage and simmer for about 2 minutes. Mix 3 tablespoons of flour with an equal amount of melted fat. Add a little of the hot milk to this blend. Stir into the cabbage and cook for 3 minutes, stirring all the time. Season with salt and pepper and serve at once.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
August 12 1957

To all counties

For use week of
August 19 or after

ATT: 4-H CLUB AGENTS

MANY WAYS TO GET IVY POISONING

You don't have to touch poison ivy to catch it.

It's true that contact with the poison ivy plant is the way most people get it during summer, Club Agent _____ points out. So the surest protection against ivy poisoning is to learn to recognize the plants and avoid them. _____ reminds 4-H'ers and others of the rhyme: "Leaves three
Let them be."

But _____ reports that studies made by research plant scientists of the U. S. Department of Agriculture show there are other ways that people who are especially susceptible can get ivy poisoning:

CLOTHING--Gardening clothes that have come in contact with the plants can transmit the poison substances to anyone touching them afterwards. These clothes should be washed thoroughly in hot soda solution and soapsuds.

TOOLS-- Tools that have been used to dig out poison ivy should be cleaned promptly to prevent further danger of poisoning. Wash thoroughly through several changes of strong soap and water.

ANIMALS-- Dogs and cats running in woods or fields may get the poison on their fur. They won't suffer from ivy poisoning, but their owners may get it from handling them. To remove the poison, give pets a bath in warm soapy water and wear rubber gloves as a precaution.

AUTOMOBILES-- Automobiles driven by campers who have been in contact with poison ivy in the woods are a means through which poison ivy can be carried to others. The poison may be on the door handles or steering wheel.

SMOKE-- Smoke from burning any part of the plant, roots included, can cause severe cases of poisoning.

-jbn-

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
August 12 1957

To all counties
For use week of
August 19 or after

ATT: HOME AGENTS
Use if appropriate

TAKE STEPS TO
PREVENT DAMAGE
FROM MILDEW

Mildew can seriously damage clothing and home furnishings if steps are not taken to prevent and control it, says Home Agent _____.

She reports that many _____ county homemakers have found mildew a problem this summer because the hot, muggy weather has provided the perfect setting for mold growth. Molds causing mildew flourish in places that are damp and poorly lighted, such as basements and closets. These molds can rot wood, ruin books and wallpaper, stain and discolor fabrics, leather and paint.

Moisture forms when warm, humid air strikes a cold surface. Warm, moist air coming into the basement from inside or outside will condense on the cooler surfaces of basement walls and floors. For that reason, Dennis Ryan, University of Minnesota extension agricultural engineer, recommends keeping entrance doors to the basement and all basement windows closed during periods of rainy or hot, humid weather. A good rule to remember, he says, is to keep all doors leading to the basement and all basement windows closed as soon as the temperature goes above 75 degrees or the humidity above 50 percent.

Electric dehumidifiers will do an effective job of removing moisture from the air and combating mildew. Chemicals, such as calcium chloride, will also help to dry the air. Wick or spray deodorants will help remove musty odors.

To prevent mildew on clothing, never let wet or damp clothes lie around. Dry soiled clothes, towels and washcloths before putting them into a hamper. Don't sprinkle clothes in hot, humid weather until you can follow through with the ironing.

Remove mildew spots as soon as you discover them. Here are suggestions from University extension clothing specialists: Take off surface growth by brushing clothing out of doors. Dry-clean fabrics that cannot be washed. Launder white washable materials at once with soap and water; then dry in the sun. If a stain remains, moisten with lemon juice and salt and spread in the sun to bleach. Or a sodium perborate bleach may be used on either white or colored washable material for fresh mildew stains.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 13, 1957

Immediate Release

HOME EC TEACHERS TO HAVE CONFERENCE

More than 400 home economics teachers from Minnesota high schools are expected to attend their annual conference August 19-23 on the University's St. Paul campus.

The meeting is sponsored by the Minnesota State Department of Education in cooperation with the University's School of Home Economics.

Theme of the conference is "Implementing Program Planning: the Contribution of Home Economics to Personal, Family and Community Living." During the week discussion groups will consider various phases of the theme.

Mary Lois Williamson, state director of home economics education in Kentucky, will be conference leader. Last year she was selected by the Progressive Farmer magazine as Woman of the Year for service to Kentucky homes.

Monday (Aug. 19) will be devoted to committee meetings and to tours of new homemaking departments in schools, to industrial test kitchens and furniture show rooms.

At the opening session Tuesday morning in Green hall auditorium, A. A. Dowell, director of resident instruction, College of Agriculture, Forestry and Home Economics, will welcome the group. Miss Williamson will speak on "The Challenge of Present-Day Life to Home Economics."

Wednesday afternoon the teachers will get information on new products in textiles, food and small equipment and will hear suggestions for using new products and materials in teaching.

Duane Lundgren, state supervisor of occupational information and guidance, will speak to the group at the closing session Friday afternoon on ways of helping guidance councilors interpret the homemaking program.

Advisers for the five-day meeting will be Roxana Ford, professor of home economics, University of Minnesota; Aura Keever, supervisor of home economics and Rachel Anhorn, assistant supervisor of home economics, Minnesota State Department of Education; Agnes Larson, Board of Education, St. Paul; and Sister M. Celeste, College of St. Scholastica, Duluth.

Members of the committee planning the conference include Mrs. Ruth Aaberg, Garden City; Mary Peck, Red Lake; Mrs. Florence Klinkerfues, Forest Lake; An Bekkerus, Wheaton; Beryl Jensen, Duluth; Gwendolyn Sells, Cannon Falls; Marie Larson, Cokato; Lois Westling, Wayzata; Carol Abraham, Granite Falls.

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B-1607-jbn

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 13, 1957

Immediate Release

4-H'ERS TO TAKE PART IN FUN FESTIVAL

Forty-nine 4-H club members have been selected to take part in the statewide 4-H Share the Fun festival scheduled for Wednesday evening, Aug. 28, during the Minnesota State Fair.

The young people were chosen on the basis of their performances at district events at Faribault, Redwood Falls, Aitkin and Ada.

The University of Minnesota Agricultural Extension Service and Cargill, Inc., are sponsors of the Share the Fun program.

The state festival program, open to the public, will feature 18 different numbers representing 4-H talent for a well balanced show, according to Earl Bergerud, district 4-H club leader at the University of Minnesota. The variety of entertainment will include folk dancing, oboe, cornet, accordion, piano and vocal solos, vocal and piano duets, barbershop quartets and a magician's act.

Lyle Arneson, Ada, will be master of ceremonies for the event.

Beginning a day before the festival, participants will receive special training to assist them in giving a polished performance, Bergerud said.

Taking part in the Share the Fun festival will be Barbara and Bruce McClellan, Annette Thompson, Jean Nelson, Billy Stepani, Charles Northup, Puposky; Gladys, Agnetta and Oriyn Traaseth, Karen Osborn, Helene Philip and Leo McPhee, Shevlin; Tommy and Jimmy Saunders, Bagley; Duane Olson, Hartland; Carol Ferguson, Blooming Prairie; Natalie, Patsy and Sandra Norman, Hubbard; Kenneth Clifton, Grand Rapids; Connie Erickson and James Trupe, Mora; Tom Kajer, New Prague; Darrol Bussler, Brownton; James Hayden, Elso Ryks, Gary Bailey and Fred Augustin, Austin.

Kent and Don Swanjord, Balaton; Robert Pfeil, Worthington; Marilyn Benson, Bigelow; Gail Forsell, Twin Valley; Shirley Oski, Goodridge; Florence Hesse, Plummer; Charles Lantz, Walnut Grove; Sharon Thorkeison, David and Roma Hovda, Maynard; Duane Slater and David Dahlager, Sacred Heart; Marilyn Hendrickson, Granite Falls; Sonja, Mary and Martha Peterson, Stillwater; David Sand, Gordon Johnson, Tom and Danny Bollman, Cokato.

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B-1608-jbn

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 13, 1957

Immediate Release

BEEF GRASSLAND DAY SET FOR SEPTEMBER 19

Results of recent beef cattle feeding experiments and other up-to-date research will be reported to farmers at the fifth annual Beef Cattle-Grassland Field Day Sept. 19 at the University of Minnesota's Rosemount Agricultural Experiment Station.

The event was announced today by J. O. Christianson, director of agricultural short courses. Program chairman for the event is P. M. Burson, University soils scientist.

Topics at the field day will include weekly vs. daily rotational grazing for beef cattle, pasture fertility and beef production, bloat research, trials with stilbestrol and terramycin, stilbestrol and dynafac wintering calves on silage, and beef cattle prospects for 1958.

The beef-cattle-grassland project was started at the Rosemount station in 1952 and is conducted jointly by research workers in animal husbandry, soils and agronomy.

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B-1609-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 13, 1957

SPECIAL TO WILCOX
County Agent Introduction

Making plans for the Northeast Junior Livestock show Sept. 17-18 at Duluth are, left to right, South St. Louis County Agent Richard Herman, Roy Nelson, general chairman of the 12-county event and Vernon and Jimmy Oraskowich, Carlton county 4-H club members. Herman and Nelson have been working with Sigmund Restad, Carlton county agent, in preparation for this event. Herman is a 1951 graduate of the University of Minnesota, was Kanabec county agent before going to St. Louis county.

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-pjt-

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
August 14 1957

ATT: Agricultural Agent
Home Agent
4-H Club Agent

GARDEN FACT SHEET FOR AUGUST

By O. C. Turnquist
C. Gustav Hard

Extension Horticulturists

Ornamentals

1. Perennials such as iris, peonies, bleeding heart can still be transplanted this month. Be careful not to move any diseased or insect-ridden transplants into clean soil.
2. The early chrysanthemums will be coming into bloom this month. Look for the new varieties so you can better select the 'mums you want for next year.
3. After August 15, you can start a new lawn or renovate the old one. Good soil preparation is essential. Add one pound of actual nitrogen to 1000 square feet for good growth of grass. One to two pounds of soybean meal or a 5-10-5 fertilizer per 100 square feet will provide the necessary nutrients for fall growth. Each 1000 square feet of lawn should receive one pound of actual nitrogen. If you are using an 8-10-4 fertilizer, you should apply $12\frac{1}{2}$ pounds to 1000 square feet. Spread the fertilizer evenly over the lawn. After seeding, thorough watering is essential to get the seed started for good growth. Kentucky bluegrass is recommended for a sunny lawn and Chewings fescue or red fescue for a shady lawn.
4. Early fall is a good time to begin planting spring-flowering bulbs. Such bulbs as tulips, daffodils, hyacinth, crocus and many lesser bulbs can be planted now.
5. Weed control should continue through the month of August so that none of them are allowed to go to seed. Good sanitation in the garden means that over a period of years the weed problem can be whipped.

Vegetables

1. If you have not mulched your vegetables yet, it would pay to do so during the remainder of the season. A layer of grass clippings, clean hay, clean straw or ground corn cobs will keep the soil cool, control weeds and keep fruit clean.
2. Onions should be thoroughly mature before harvest if they are to store well. When two-thirds of the tops break over at the neck they can be topped and laid in windrows in the garden or in shallow trays in a shed or garage which is dry and airy.
3. If cabbage heads are growing so fast that they burst open, it is advisable to bend the sound plants over sharply so the roots get broken off on one side. This will slow the growth and check further cracking.
4. Continue controlling insects using malathion for aphids and methoxychlor for chewing insects. Mix together according to directions on the container and apply at weekly intervals.
5. Weekly applications of Zineb (Parzate or Dithane) should continue for control of late blight and early blight of tomatoes and potatoes.
6. Fall vegetables like radish, spinach, lettuce, kohlrabi and turnips may be seeded now for a crop before cold weather this fall.
7. Much of the yellow or purple color observed in many vegetable plants this season is due to virus diseases carried by leaf hoppers. Curling of tomato leaves and a leathery texture of the plants may also be due to these pests. Leaf hoppers should be controlled during the entire season with DDT if control is to be effective.

Fruits

1. Prune your raspberry plants now. Remove the old canes that bore fruit this year and thin out the new canes so there are about three or four per foot of row or six to eight per hill. Save only the strong, vigorous non-branched canes.

2. Remove late-formed runner plants on June-bearing strawberries. The rows should not be over two feet wide. Space the plants 8 inches apart within the row for best results.
3. Anthracnose on raspberries is quite common. The small white sunken spots on the canes can be controlled by using Fermate. Remove by pruning out badly infected canes.
4. When harvesting grapes, use a pair of old shears or a sharp knife. Handle the clusters carefully to avoid crushing.
5. Apples should be harvested with a twisting motion that will separate the stem at the natural breaking point. By pulling off the fruit you are likely to break the fruit spurs on which fruit is produced next year.
6. Remove water sprouts and suckers from your fruit trees. They rob the named variety -- which is budded on the seedling understock -- of moisture and minerals.
7. Remove all mummied fruits from your plum trees and pick up any fruits that have fallen to the ground. Destroy these fruits to prevent overwintering of several fruit pests. Pick up all windfalls below your apple tree and destroy also.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 15, 1957

Immediate Release

COMMERCIAL GROWERS TO SEE NEW FRUIT VARIETIES

Close to a hundred commercial fruit growers from Minnesota and western Wisconsin will observe results of different cultural and production techniques and will see new fruit varieties on their annual orchard tour Tuesday, Aug. 20.

The tour will start at 10 a.m. at Dumas' Highview Orchards, Long Lake, where the group will observe the use of a mulch on 10 acres of year-old Haralson apples and results of spraying and thinning programs in other areas of the orchard. Also of interest will be an underground storage cellar with ground level approach and apple grading, polishing and cleaning equipment.

Following a luncheon at Long Lake Presbyterian church, growers will spend the afternoon at the University of Minnesota Fruit Breeding Farm near Excelsior where they will view experimental plantings of apples on dwarfing stocks, see new fruit varieties developed by the University and promising new seedlings and results of blossom-thinning sprays.

William D. Fitzwater, U. S. Fish and Wildlife Service, will give a demonstration of trail baiting for field mice as part of the afternoon program.

The tour for commercial growers is sponsored by the Minnesota Fruit Growers' association and the Wisconsin State Horticultural society. J. D. Winter, secretary of the Minnesota Fruit Growers' association and associate professor of horticulture at the University of Minnesota, is in charge of arrangements.

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B-1610-jbn

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 15, 1957

Immediate Release

SEED IS PRODUCED FOR NEW VARIETY OF BLUEGRASS

Home owners in many areas of Minnesota may be able to get seed supplies of Park Kentucky bluegrass, a new turf variety, next spring.

Carl Borgeson, University of Minnesota agronomist and in charge of seed increase, reports that several farmers in northwestern Minnesota are growing about 500 acres of Park bluegrass seed for certification this summer.

Park is on the list of varieties recommended by the Minnesota Agricultural Experiment Station. It was developed at the University by H. L. Thomas, agronomist, from materials supplied by H. K. Hayes, former head of the agronomy department, and H. K. Schultz, former agronomist at the University.

In Minnesota tests, Park has been outstanding in seedling vigor and resistance to rust. In these respects, it is superior to Minnesota Commercial and is far superior to Merion. It is vigorous growing and is an excellent sod former.

Reports so far indicate that Park does well throughout the northern half of the nation, but its complete range of adaptability isn't known as yet.

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B- 1611-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 15, 1957

Immediate Release

MINNESOTA GIRL SELECTED FOR NATIONAL CONFERENCE

Estrid Baldwin, 20, 4-H'er from McGregor, will be a featured speaker at the opening day's session of the twelfth National Conference on Citizenship in Washington, D. C., in the Statler hotel, Sept. 16-18.

She is one of four 4-H club members in the United States chosen to attend the meeting. The four young people will represent more than 2 million club members in the nation at the conference, in which more than 1,200 organizations and agencies participate. Theme of this year's conference is "Imperatives for Peace."

Miss Baldwin was selected to attend the conference on the basis of her all-round 4-H record and for her participation in the statewide 4-H radio speaking contest sponsored by the University of Minnesota Agricultural Extension Service and the Minnesota Jewish Council. This past year she won state reserve championship in radio speaking for her original speech on the subject, "How the International Farm Youth Exchange Program Builds Better World Understanding." She will give her speech at the opening luncheon of the conference.

Miss Baldwin will be a junior this fall at the University of Minnesota, where she is majoring in home economics. She has been a 4-H club member in Aitkin county for nine years. She was state champion home furnishings exhibitor in 1954.

She is the daughter of Mr. and Mrs. A. H. Baldwin.

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B-1612-jbn

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 15, 1957

Immediate Release

MINNESOTA FARMS INCREASE IN SIZE IN 1956

Size of farms in Minnesota increased slightly from 1955 to 1956, according to Harold Pederson and Luther Pickrel, extension agricultural economists at the University of Minnesota.

The increase averaged .9 percent for Minnesota as a whole and was fairly uniform throughout the state. Average farm size was 203 acres in 1955 and 205.1 in 1956.

There has been a steady increase in farm size since 1946. In that year, the average in the state was 182.9 acres.

Within the state, the biggest increase from 1955-56 was 5.3 percent in Dakota county and the largest decrease in farm size was 3 percent in Cook county.

All but 20 counties registered slight increases over 1955.

The economists also reported a decrease of .3 percent in total number of milk cows on Minnesota farms during this period. This decrease was most pronounced near the Twin Cities, in southeastern Minnesota and in northern counties. St. Louis county had a decrease of 12.6 percent.

Greatest increase in milk cows was 4.6 percent, in Wabasha, Sibley and Carver counties. This slight decrease for the state as a whole has continued since 1953. But despite this decrease, total milk production has increased due to increased production per cow.

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B-1613-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 15, 1957

Immediate Release

CROPPING SYSTEMS CHANGE IN MINNESOTA

Minnesota farmers have made some big changes in their cropping systems during the past 37 years.

S. A. Engene, agricultural economist and F. T. Hady, U.S. Department of Agriculture economist at the University of Minnesota, point out that corn acreage has increased by almost one-third since 1920. And most of this increase has been in corn belt counties.

Engene and Hady report on these changes in the current issue of Minnesota Farm Business Notes, a University Agricultural Extension publication.

One of the most spectacular changes, they point out, has been the increase in soybeans. There were only 47,000 acres of this crop from 1935-39. By last year, soybean acreage had jumped to more than 2.5 million acres in Minnesota.

Potato acreage, on the other hand, has fallen sharply, from 414,000 acres in 1921 to about 85,000 acres a year ago. While potatoes were grown in most parts of the state 30 years ago, almost two-thirds of the potato crop is in the Red River Valley now.

Farmers in all parts of the state except the southwest corner have increased oats acreage, but the change hasn't been a big one.

Wheat acreage has gone down sharply, to about a fourth of what it was in the late '30s and early '40s. It's now important only in the Red River Valley.

The trend in flax production has been upward, particularly in the western half of the state. Rye has almost disappeared after a steady decline ever since 1921, when there were nearly a million acres being grown.

Hay acreage rose slowly until about 1940 and has fallen a little since then.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minn.
Aug. 16, 1957

Special to McLeod Co.

(with mat)

Special file

NEW HOME AGENT
FOR COUNTY

Irene Ott, Fairmont, has been appointed home agent in McLeod county, beginning Sept. 23.

She will replace Marian Larson, who begins work on Sept. 3 as 4-H club leader for the territory of Alaska, with headquarters in Fairbanks.

Miss Ott has been home agent in Martin county for the past three years. She received her bachelor of science degree from the University of Minnesota in June, 1954, with a major in home economics.

In addition to her work in home economics, she has a background of many years of experience in 4-H club work. For three summers she served as 4-H club assistant in Paribault county. For 10 years she was a 4-H club member in Freeborn county. During that time she carried home economics, poultry and lamb projects, was a junior leader and was active in safety, health and conservation work.

In McLeod county
/ Miss Ott will work with the home economics extension program, which includes adults and youth.

-jbn-

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota

Timely Tips for The Farmer, issue of August 17

Use plenty of caution when filling silos. There is danger of falls when putting doors and assembling blower pipes. There is danger from power machinery, too. And finally, there's the danger of silo gases. Open the doors and get some air circulation in the silo before entering the silo room and run the blower for a short while before entering the silo itself once you've started to fill it.

--Glenn Prickett

Get those milking machines off the cow as soon as she is milked out. Leaving it on longer will injure the lining of the teat and invite mastitis inside.

--Ralph Wayne

Beef heifers on full feed of grain on pasture need at least a pound of 40 percent protein concentrate daily, or another concentrate that gives them an equivalent amount of protein.

--R. E. Jacobs

Play it safe with herd sires around the farm. These animals need to be treated with care, especially if there is another of the same species around.

--H. G. Zavoral

Untreated wood posts shouldn't be set in concrete in the lawn or yard fence. They tend to retain moisture in the wood at the point of contact with the concrete. That results in more rapid decay of the wood post.

--J. R. Neetsel

Mulch tillage--also called stubble mulching--can assist in both wind and water erosion control, help catch more snow and allow more moisture to penetrate the soil. But the yield of the crop may be somewhat reduced. That is because the mulched material draws heavily on nitrate accumulation in the soil. So if you use this practice, it's necessary to add additional nitrogen to the soil.

-more-

add 1 Aug. 17 timely tip

In the near future, plow and disc ground intended for shelterbelt planting in 1958. A full summer of fallowing previous to planting is best in the long run, but where the sod isn't heavy, late summer and fall plowing and discing is all right. Don't plant trees in spring plowing, though.

--Marvin Smith

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
August 19 1957

HELPS FOR HOME AGENTS

(These shorts are intended as fillers for your radio programs or your newspaper columns. Adapt them to fit your needs.)

In this issue:

Did You Know...

Let Peaches Ripen at Cool Temperature

Ascorbic Acid Prevents Darkening

Freeze Muskmelon for Fruit Cup

Cool Water for Peach, Plum Stains

Washable Wools

Skirt Lengths

Curtain Length

White or Off-White for Large Windows

Simple Care for Leather, Plastic

Upholstery

Did You Know That...

The percentage of farms with telephones is double what it was in 1940 and continues to increase in most states? In the Midwest, from 48 to 88 percent of farm homes have telephones.

The average American eats about five pounds of potato chips a year, including about two pounds of vegetable oil in which chips were fried?

Some 21 million women in the United States are holding jobs?

The typical working woman today is married and about 40 years old?

In family diets not up to standard in the North Central Region, nutrients likely to be low are calcium, vitamin C, riboflavin, thiamine and vitamin A, in that order?

Today's teenagers are becoming a vital factor in the economic picture? More than 10 million are working during the summer and 5 million part-time during the school year.

Flower growers in five leading states sold \$40 million worth of carnations, mums, glads and roses last year, according to the U. S. Department of Agriculture.

-jbn-

Cooperative Extension Work in Agriculture and Home Economics, University of Minnesota, Agricultural Extension Service and U. S. Department of Agriculture Cooperating, Skuli Rutford, Director. Published in furtherance of Agricultural Extension Acts of May 8 and June 30, 1914.

FREEZING FOODSLet Peaches Ripen at Cool Temperatures

If you're buying peaches for canning or freezing and they're not fully ripe, it's best to let the fruit ripen at temperatures between 65 and 75. J. D. Winter, in charge of the University of Minnesota food processing laboratory, says that when peaches ripen at warmer temperatures they will have poorer flavor and color. A cool basement is a better place than a warm kitchen to let them ripen.

Ascorbic Acid Prevents Peaches from Darkening

If you've had trouble keeping your frozen peaches from darkening, ascorbic acid may solve your problem. Added to the sugar syrup in which peaches are frozen, ascorbic acid will prevent the fruit from darkening and at the same time help preserve the natural flavor of the fruit.

Here are the directions for freezing peaches from J. D. Winter and Shirley Trantanella of the University of Minnesota food processing laboratory. Dissolve 3 cups of sugar in a quart of cold water and let the syrup stand until clear. When you are ready to prepare the fruit, mix $\frac{1}{2}$ tablespoonful of pure ascorbic acid in a small quantity of water and add it to the syrup, mixing thoroughly.

Peel only a few peaches at a time, and pack the halves or slices directly into the prepared syrup to which the ascorbic acid has been added. Completely cover the fruit with syrup, but leave $\frac{1}{2}$ to $\frac{3}{4}$ inch for expansion. Keep top slices submerged in the syrup by placing a generous wad of crumpled locker paper under the lid. Use rigid containers for freezing peaches.

The fruit should be well ripened for best flavor.

Freeze Muskmelon for Fruit Cup

Muskmelon, cubed or in balls, is delicious for salads or fruit cups if it is frozen in a sugar syrup. Cover the fruit with a syrup made of 2 cups of sugar to 1 quart of water. Be sure to serve the muskmelon with ice crystals still on the fruit.

CLOTHINGCool Water for Peach, Plum Stains

We're in the season when stains on clothing and table linen can be a problem from fresh peaches, pears, cherries and plums.

Extension clothing specialists at the University of Minnesota warn against using boiling water on these stains. Instead, first sponge the stain well with cool water; then work glycerine or a soapless shampoo into the stain, rubbing it lightly between the hands. Let it stand for several hours; then apply a few drops of vinegar, and after a minute or two rinse thoroughly in water. Avoid using soap and don't use boiling water on peach, pear, cherry or plum stains.

Washable Wools.

Since light woolen jackets and sweaters plan an important role in summer wardrobes in this air-conditioned era, a treatment to make light-colored summer wools machine-washable would be a distinct advantage.

Such a treatment now shows promise in U. S. Department of Agriculture research. The process which is still being tested and perfected, eliminates felting, most common cause of wool shrinkage.

A blend of resin chemicals applied to the fabric coats the fibers with a tough, durable yet flexible protective film. The film makes the fabric shrink-resistant and helps reduce pilling -- the formation of little balls of wool on the surface.

The treatment can be applied to both woven and knitted wools. It promises also to be fairly inexpensive. However, before these shrink-resistant wools can be manufactured, some improvements must still be made.

Skirt Lengths

Every year the question of skirt length arises, since fashion has a strong influence on what is accepted as the right length. Within the limits permitted by fashion, it's best to choose the skirt length which looks most attractive on you. Generally the mid-calf level is both functional and becoming, but remember that the most flattering position differs with each individual.

HOME FURNISHINGSCurtain Lengths

If you're planning new curtains for fall, remember that they look best when they are one of three lengths: just to the sill, covering the apron (woodwork under the sill) or clearing the floor by 1 inch. Floor-length curtains will make short, wide windows look longer and help to make low ceilings look higher.

White or Off-White for Large Windows

Off-white or white curtains are a practical choice for large expanses of window for a number of reasons, according to Mrs. Myra Zabel, extension home specialist at the University of Minnesota. In the first place, they give versatility to color schemes in the room, making it possible to change color schemes without changing the draperies. When drawn, they present a uniform appearance from the outside. They eliminate the worry of fading, in case they are exposed to sunlight on the west or south.

Simple Care of Leather, Plastic Upholstery

Leather -- like plastic on chairs and automobile seats can be cleaned with mild soapsuds.

An easy and effective way to clean leather upholstery or leather surfaces on tables is to dampen a cloth or sponge in warm water, wring it out and rub with another moist cloth without soap and finally dry with a clean, soft cloth. Any gloss that disappears will be restored by friction of the last rubbing.

Keeping leather as clean as possible and in a dry place is a protection against mildew in humid weather. Wash mildew off promptly, then dry with an electric fan.

Avoid using furniture polishes, oils or varnishes on leather because these preparations frequently contain solvents that make leather sticky.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
August 19 1957

To all counties
For use week of
August 26 or after

FARM FILLERS

Country roads are particularly hazardous at this time of year. Weeds, brush and tall corn can cut down the view and make each intersection a danger trap, warns Glenn Prickett, extension farm safety specialist at the University of Minnesota. Weeds and brush on these intersections need to be cut now. Corn blocking these views should also be removed as early as possible. Motorists and machinery operators need to be more cautious than ever when approaching these "blind" intersections.

Good "outdoor etiquette" in late summer and early fall can help save precious timber resources, says Parker Anderson, extension forester at the University of Minnesota. Put out campfires, cigarettes and be careful with matches anytime you're near woodlands. Fire danger is increased tenfold at this time of year.

If you exhibited some poultry in contact with other birds at a fair this year, don't return them to the home flock, advises Raymond Solac, extension veterinarian at the University of Minnesota.

Minnesota sheep men again have topped the nation in percent of lambs raised to market. Up to July 1, 1957, they saved 118 lambs for every 100 ewes. For the nation as a whole, the figure was 94 percent. Minnesota was also first in this the year before, with a 119 percent lamb crop saved, according to R. M. Jordan, livestock scientist at the University of Minnesota.

Minnesota farms are steadily getting bigger. They increased .9 percent from 1955 to 1956, according to Harold Pederson and Luther Pickrel, extension agricultural economists at the University of Minnesota.

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University Farm and Home News
Institute of Agriculture
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Twin City Outlets

SHOFFNER ELECTED TO POULTRY SCIENCE ASSOCIATION POST

Robert N. Shoffner, poultry husbandry professor at the University of Minnesota, has been elected a director of the Poultry Science Association, an organization representing poultry scientists in the U. S. and Canada.

The election was made at the association's recent annual meeting at the University of Missouri.

Shoffner is a native of Kansas, attended Kansas State college and joined the University of Minnesota staff in 1946. As a research worker, he has specialized in poultry breeding.

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-pjt-

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota

To all counties

For use week of Aug. 26
or later.

August 19 1957

ATT: 4-H CLUB AGENTS

COUNTY 4-H'ER
WINS TRIP TO
ITASCA CAMP

_____, _____, _____, a member of the _____ 4-H club,
(name) (age) (address)
will receive a trip to the State 4-H Conservation camp in Itasca State Park Sept. 12-
15 for (his, her) outstanding record in the 4-H conservation program.

_____ will be among 100 4-H'ers from all parts of Minnesota
selected to attend this year's camp at the University of Minnesota's Itasca Forestry
and Biological station, according to Club (County) Agent _____.

Now in its 23rd year, the camp was established to give 4-H
members a greater appreciation of the importance of conservation. It also provides
an opportunity to give 4-H'ers recognition for the work they are doing in conservation.

The camp is financed each year with funds contributed by
Charles L. Horn, president of the Federal Cartridge corporation.

Each year the camp features classes on various phases of
conservation. These include classes in forestry, developing good fishing, plants of
Minnesota, land appreciation, gun safety, firecraft and outdoor cookery. Also
scheduled during the four days are tours of the park, boat trips on Lake Itasca
and nature hikes.

This past year _____ has been one of _____
(conservation winner) (no.)
county 4-H members enrolled in the 4-H conservation program. His (her) record of
achievements in conservation include (devote rest of story to winner's conservation
activities).

-jbn-

University Farm and Home News
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To all counties
For use week of
August 26 or after

RULES LISTED FOR
SOIL BANK CONTRACTS

_____ county farmers taking part in the Soil Bank Conservation Reserve are reminded that there are some important provisions in their contracts that need to be followed.

County Agent _____ (and/or local ASC officials) point out that if contract provisions aren't complied with, the farmer may be disqualified for payment and even become liable for penalties.

For example, for every farm taking part in the Conservation Reserve, there is an acreage limit of Soil Bank base crops that can be grown. Soil Bank base crops are generally grain and row crops, but if there's any doubt, farmers are advised to check at the local ASC office.

If you have some land in the Conservation Reserve, you must not graze or harvest any crop from the designated acreage. Nor can you harvest any more acres of an allotment crop than are specified for in the contract.

It's also necessary to control noxious weeds on land in Conservation Reserve.

Farmers who have any questions about their individual contracts are urged to contact the ASC office for more information.

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University Farm and Home News
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To all counties
For use week of Aug. 26 or
after

ATT: HOME AGENTS

PEARS, TURKEY
SEPT. PLENTIFULS

Including the U.S. Department of Agriculture's list of plentiful foods in early fall meals is a good way to get the school year off to a rousing start, suggests Home Agent _____.

Bartlett pears and turkey lead the September list of abundant foods. Above-average supplies of Washington and Oregon pears are expected to arrive in local markets this month, giving homemakers easy lunchbox, dessert and salad treats for the family. The Bartlett pear crop in Pacific Coast states is estimated at 9 percent above last year and 21 percent above average. These plentiful supplies should mean good buys for home canners.

The record crop of turkeys will approach its peak in September. More broiler and fryer chickens will be marketed during the month than a year ago. From Sept. 26 to Oct. 5 homemakers will be seeing posters, special displays and some bargains on turkeys and broiler and fryer chickens as the poultry industry celebrates Fall Poultry Festival time.

Since fisheries still are operating at full capacity, there will be an abundance of a variety of fresh fish available during September, as well as frozen fish, fillets, stocks and other fish products to mix and match with late summer vegetables.

Milk and dairy products are plentiful, as they have been every month, but during September, Better Breakfast Month, they will receive special emphasis.

September will bring the height of the harvest season for many vegetables. Tomatoes, for example, should be at peak supply for canning and for table use. Sweet corn, beets, cabbage, squash are other vegetables that will give variety to family meals.

On cool days during the month homemakers will also want to take advantage of the plentiful supply of dried peas to make tasty soups.

There is also plenty of vegetable shortening available for baking and cooking.

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To counties with 4-H land
judging teams
For immediate use

COUNTY LAND JUDGERS
WILL COMPETE IN
STATE CONTEST

A team of 4-H land judges from _____ county will take part in the statewide land judging contest Saturday, September 14, during the Silver Soil Celebration in Winona county, according to County Agent _____.

Members of the _____ county team are (list names, ages and home towns.)

More than 200 youths from around Minnesota will take part in the September 14 state contest. Both 4-H and FFA teams will compete. First-place winners in each group will be eligible for a soil tour to be conducted later this year.

In the state contest, the competing teams will judge three field areas for physical characteristics of the soil. They will classify soil by capability group, determine the type of rotation best suited for that soil and other practices which should be followed, such as fertilizer and lime use, field management and conservation practices.

_____ county's team was named winner of a county land judging contest held (date and place.)

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University Farm and Home News
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To all counties
For use week of
August 26 and after

A U. of M. Ag. and Home Research Story

FERTILIZING PASTURE
AIDS BEEF CATTLE

There's some real advantage in fertilizing pastures for beef cattle.

But the advantage isn't always as apparent as you might think, according to Paul M. Burson, soils scientist, and A. L. Harvey, livestock scientist at the University of Minnesota.

In tests at the Beef-Grassland farm at the University's Rosemount Agricultural Experiment station, there hasn't always been an important gain advantage for cattle on fertilized pastures compared to unfertilized areas. Up-to-date beef feeding research will be reported at the annual Beef-Cattle Grassland Field Day, September 19 at the Rosemount Station.

The Beef-Grassland project was started in 1952. Since then, fertilizing has increased gains in some tests but not in others. A couple of years ago, Burson and Harvey found there was \$30 more beef produced per acre where fertilizer was used, while last year there was little difference, on the average.

But fertilizing has other benefits. For one thing, heavy fertility tends to pep up the grasses in the pasture mixture -- an important factor where bloat is concerned. Livestock men are generally agreed that it's wise to keep a pasture mixture down to no more than half legumes, to help control bloat. Fertilizer seems to help in this respect.

Second, the cattle tend to eat more on the grasses when it's fertilized than on legumes, which is also helpful from a bloat standpoint.

And third, the scientists have noted that fertilized pastures are grazed more evenly by beef cattle. For some reason, the cattle will eat grass on dropping areas better on fertilized pastures than where no fertilizer was applied. Finally, it's possible to have more animals on each acre when the pasture is fertilized.

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Silver Soil Celebration
Planning Committee
Esburn Johnson, Chairman
Altura, Minnesota

SPECIAL

Aug. 20

**SILVER SOIL EVENT
TO FEATURE PROGRESS
IN BETTER LAND USE**

How a rural community banded together 25 years ago to successfully solve a major soil conservation problem will be seen from ground and air by thousands of Minnesota farm families attending the Silver Soil Celebration Sept. 13 and 14 on the Hank Bros. farm in Winona county.

This event is similar to "Flowville" held in recent years. It will feature more than a dozen field demonstrations, the State Plowing Match, a 4-H and YFA land judging contest, a Queen of the Furrow contest and a tractor safety demonstration.

The Silver Soil celebration marks 25 years since the Gilmore Valley Watershed project—first of its kind in the state—was set up just south of the city of Winona. There are some 45 farms in the hilly, 6,000 acre watershed. These farms, starting in the early '30s, cooperatively attacked their erosion and soil loss problems by planting grass and trees to hold the soil in place. They coupled these efforts with contouring, terracing, waterway and gully control, and stream bank reinforcement.

Special tours of the Gilmore Valley Watershed area will be conducted Sept. 14 during the Silver Soil Celebration. Visitors can see the area by bus or by airplane.

Some of the past history of the project will be reviewed for visitors by Harold Pederson, extension agricultural economist at the University of Minnesota. Pederson was agricultural agent in Winona county when the conservation program there and in the rest of Minnesota was born.

In other Silver Soil Celebration features, visitors will see demonstrations on corn fertilization, pasture fertilizer and renovation, weed control, wheel track corn planting, woodlot management and contour fencing.

(more)

(2)

Bulldozers, graders and other equipment will shape terraces, detention dams, spillways, construct waterways and lay out contour strips on the Benk farm during the two-day event, so that visitors can see how these practices are accomplished.

There will be some 50 exhibits in the headquarters area on the farm.

Other speakers at the event will include Governor Orville Freeman and W. H. Kircher, managing editor of THE FARMER magazine.

The State Plowing match will be held Sept. 13. Two state winners will be named—one in level land and a second in contour plowing.

Four-H and FFA land judges will compete in a state contest. Sept. 14. A Queen of the Furrows will be selected the same day.

The Benk farm is about six miles south of Winona, at the south end of the Gilmore Valley Watershed.

Sponsoring the Silver Soil Celebration are the Minnesota Association of Soil Conservation District Supervisors and Station WCCO. Cooperating are the University of Minnesota Agricultural Extension Service, the Soil Conservation Service, The Agricultural Stabilization and Conservation committee, the State Dept. of Conservation and several vocational agriculture instructors in Minnesota.

E. V. Johnson, field representative for Altura Rex Turkeys, Altura, Minn., is general manager for the event.

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Special file
Special to Martin County

(with mat)

**NEW HOME AGENT
FOR COUNTY**

Virginia White, Bloomfield, Iowa, is Martin county's new home agent. She will take over the duties of her position Sept. 16, with headquarters in the county extension office in Fairmont.

She succeeds Irene Ott, who has resigned to take a position as home agent in McLeod county.

Miss White was home agent in Cottonwood county from June, 1954 to June, 1956. She was also a county extension home economist in Creston, Iowa, for two years.

For the past year she has been doing graduate study at the University of Maryland and in the U. S. Department of Agriculture, Washington, D. C. She was one of six Agricultural Extension Service workers in the country to receive a national 4-H fellowship of \$1500 for advanced study for the year 1956-57.

She holds a bachelor of science degree in home economics education from Iowa State college.

During six years as a 4-H club member, she carried home economics, gardening and livestock projects and was active in demonstration work. She received numerous 4-H honors and awards, including a trip to the National 4-H Club Congress in Chicago for her all-round girls' record.

Miss White is well acquainted with rural people and their problems, since she grew up on a 240-acre farm in Davis county, Iowa.

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SPECIAL

LOCAL HOME EC
TEACHER AT
STATE MEETING

_____, home economics instructor in the _____ school, was one of more than 400 who attended the annual conference of home economics teachers from Minnesota high schools Aug. 19-23.

The five-day meeting was held on the University of Minnesota's St. Paul campus. Theme of the conference was "Implementing Program Planning: the Contribution of Home Economics to Personal, Family and Community Living."

Mary Lois Williamson, state director of home economics education in Kentucky, as leader of the conference emphasized the important role the home economics teacher should play in meeting the challenges that come as a result of changes in society that affect everyday living. One of these changes is the trend toward earlier marriage. One out of every three women in the United States is married by the time she is 18 years old. Of these married women, one out of every four has a child by the time she is 20 years of age. Home economics teachers have a big job to do in preparing these young women for home and family responsibilities, she said.

Discussion groups at the conference considered various aspects of planning the home economics program, including ways of meeting the needs of grades 7 through 12 and challenging the slow as well as the gifted pupil.

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University Farm and Home News
Institute of Agriculture
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For Release at noon
Thursday, August 22

TURKEYS DON'T PASS BLUECOMB IMMUNITY ON TO YOUNG

CLEVELAND, OHIO--Turkeys that recover from bluecomb disease develop some immunity to the ailment, but they don't pass this immunity on to their young, a pair of veterinary scientists from the University of Minnesota said here today.

J. T. Tumlin and B. S. Pomeroy made this report to the annual meeting of the American Veterinary Medical association.

Turkey growers have believed for some time that birds recovering from bluecomb disease become immune to it, Tumlin and Pomeroy pointed out.

But many have also thought that poults--young turkeys--get this immunity from recovered adult birds through the egg sac. This is called "parental immunity" and is common in diseases like Newcastle and infectious bronchitis.

Tumlin and Pomeroy experimented with poults from four flocks of turkeys--three that had recovered from bluecomb and one that had no past history of the disease. The scientists inoculated all the poults with material taken from intestines of bluecomb-infested birds.

As many inoculated poults from recovered flocks died from bluecomb as did poults from flocks that had never had the disease.

But careful laboratory examination of recovered turkeys showed there were enough bluecomb antibodies in the blood of these birds to give them some immunity.

These findings, Tumlin and Pomeroy said, should help in further studies aimed at developing methods to prevent bluecomb. There is no way at present of making turkeys immune to this disease.

Bluecomb--Minnesota's worst turkey disease--killed some 190,000 birds and caused a \$358,000 profit loss in the state, according to a 1956 survey by the State-Federal Crop and Livestock Reporting Service. Bluecomb hits turkeys of all ages, but average age for most attacks is about 13 weeks. Antibiotics help reduce losses from bluecomb, but don't cure the disease completely. ### B-1615-pjt

University Farm and Home News
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Immediate Release

DISEASES CAUSE SLIGHT DAMAGE ON OATS THIS YEAR

This year has been a good one for oats—yield prospects are good and diseases have not been severe.

Herbert Johnson, extension plant pathologist at the University of Minnesota says that no plant diseases caused any severe damage on oat crops.

One reason for the light damage, Johnson explains, is that more farmers are raising disease-resistant oat varieties. Black stem rust—one of the worst oat diseases—was prevalent in all parts of the state. But the most common strain of this disease is race 7, to which many recommended oat varieties have some resistance.

Varieties with resistance to a wide range of rust races were practically unscathed by rust, Johnson reports. These varieties include Garry, Rodney, Minhafer and Minland.

Crown rust was also present to some extent in oats around the state. But only in a few places was it found on Minhafer and Minland, which have the most resistance to that disease.

Other diseases which did show up but caused no important losses were bacterial halo-blight, red leaf, blue dwarf and septoria.

There were many cases of partial "blasting" in heads of oat plants in Minnesota this year, according to Johnson. Blasting means that, for some reason, some florets fail to produce seed. It results from some unfavorable condition, but the specific cause is often difficult to determine. For example, blue dwarf-infected plants had severely blasted heads. But blasting can also result from unfavorable weather and other conditions, Johnson adds.

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B-1616-pjt

University Farm and Home News
Institute of Agriculture
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August 20, 1957

(Included with pact of daily releases.)

FACT SHEET ON 4-H AT THE STATE FAIR - 1957

HOW MANY: Approximately 2,500 4-H boys and girls will attend the State Fair, to exhibit livestock, give demonstrations or participate in the dress revue.

WHERE WILL THEY LIVE: They will eat and sleep in the 4-H club building on the Fair Grounds. Since demonstration schedules are set up for counties in three different sections, demonstrators will come and go according to the time of their demonstrations. Dormitories accommodate more than 1,200 4-H'ers at one time.

DEMONSTRATIONS: More than 800 demonstrations will be given on seven platforms in the 4-H building beginning at 9 a.m. Saturday, August 24, and continuing until 5 p.m. each day except Sundays. These will include demonstrations in bread making, dairy foods, clothing, homemaking assistance, home furnishings, safety and health, gardening, soil conservation, food preservation and home beautification. Selected demonstrations from blue ribbon groups will be given on Labor Day.

LIVESTOCK EXHIBITS: This year more than 1,200 club members will exhibit livestock, which will be received beginning Friday noon, August 30, in the 4-H livestock barn and will be judged Saturday, August 31. Livestock includes: 657 dairy cattle, 142 pigs, 113 sheep, 28 dual-purpose cattle, 97 beef heifers, 163 pens of poultry (4 to a pen), 13 pens of rabbits (3 to a pen).

BOOTHS: 70 booths portraying 4-H activities in as many different counties will be on display in the 4-H building. Booths will be judged Saturday, August 24.

DAY BY DAY 4-H ACTIVITIES

Saturday, August 24

9 a.m. - 5 p.m. - 4-H demonstrations

Monday, August 26

9 a.m. - 5 p.m. - Demonstrations

8 p.m. - Recreation (games) - 4-H auditorium, 2nd floor

Tuesday, August 27

9 a.m. - 5 p.m. - Demonstrations

12:30 p.m. - Key award luncheon to be attended by about 500 club members who have won 4-H key awards for leadership and outstanding service - Coffman Memorial Union

6:30 p.m. - Parade to grandstand

Wednesday, August 28

8 a.m. - 2 p.m. - Pie contest (1st division)

9 a.m. - 5 p.m. - Demonstrations

8 a.m. - 3 p.m. - Judging of dress revue contestants, 2nd floor, 4-H building

7:30 p.m. - 4-H Share the Fun Festival, 4-H auditorium. This is a program, not a contest. No winners will be selected.

(more)

Thursday, August 29

- 9 a.m. - 5 p.m. - Demonstrations
- 2:30 p.m. - Dress revue, 4-H auditorium. Dress revue queen and attendants available for pictures at 4 p.m., 4-H auditorium, 2nd floor.
- 8 a.m. - 4 p.m. - Dairy judging and livestock judging team contests, hippodrome. Winning teams available for pictures at 4 p.m., 4-H auditorium, 4-H building, or elsewhere by appointment.
- 6:30 p.m. Annual 4-H banquet by Minneapolis Chamber of Commerce, Coffman Union

Friday, August 30

- 9 a.m. - 5 p.m. - Demonstrations
- 7:30 p.m. - Six International Farm Youth Exchangees from foreign countries (India, Nepal, Iran, Guatemala, Scotland) will be made members of the 4-H club at a special ceremony in 4-H auditorium. IFYEs will be seeing the fair during the day but will be available for pictures and interviews if you will make advance requests. They will probably be at the fair through Sunday.
- 9 p.m. - 4H Gingham and Denim Party, 2nd floor, 4-H building

Saturday, August 31

- 8 a.m. - 1 p.m. - Pie contest (2nd division)
- 9 a.m. - 5 p.m. - Demonstrations
- 8:30 a.m. - 6 p.m. - Judging of all classes of livestock - hippodrome
- 7:30 p.m. - Livestock parade - hippodrome
- 8:00 p.m. - Dairy and Livestock awards program and dairy showmanship contest - hippodrome

Sunday, September 1

- 4-H livestock winners available for pictures by appointment (4-H office, livestock barn)
- 6:30 p.m. - parade to grandstand

Monday, September 2

- 9 a.m. - Livestock demonstrations in sheep barn.
- 9 a.m. - throughout the day - selected demonstrations from blue ribbon groups in 4-H building.

FOR FURTHER INFORMATION CALL 4-H PRESS OFFICE, 4-H Building, State Fair Grounds

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

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SPECIAL TO WILCOX
County Agent Introduction

What's the advantage in fertilizing pastures for dairy cattle? That question is getting some discussion here from J. B. Williams, left, dairy cattle scientist at the University of Minnesota, and Sigmund Restad, Carlton county agent. Williams is explaining a field plot at the Northeast Experiment Station, Duluth. Dairy heifers are being grazed on fertilized and unfertilized pastures to find the difference in gain from each.

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-pjt-

University Farm and Home News
Institute of Agriculture
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August 21, 1957

Immediate Release

FARMER FINDS KEY TO ESTABLISHING ALFALFA

BRAINERD--There's no reason why alfalfa can't be grown successfully in this area of Minnesota, a Crow Wing county farmer has learned.

Up to now, few people thought alfalfa would grow on the "hardpan" soil here. But Peter McKay, a local dairyman, has evidence to the contrary.

McKay has a 10-acre alfalfa field that so far this summer has yielded four tons of hay per acre. The key to this success was plenty of lime and potash fertilizer.

The sandy loam soil on McKay's and other farms in this area has a condition technically known as a "fragi-pan" and called a "hardpan" locally. From 12 inches below the soil surface to 3 feet down, there is a series of soil "plates" which break out and cement together. These plates are very hard when the soil is dry and have been blamed for the difficulty in growing alfalfa.

A year ago, McKay asked Crow Wing County Agent Ray Norrgard and Charles Simkins, University of Minnesota extension soils specialist, if there wasn't a way alfalfa could be started. Norrgard and Simkins helped him set up a demonstration field to find the answer.

McKay tested the soil in spring, 1956. Based on that test, he applied 3 tons of lime and 80 pounds of potash per acre. He seeded the alfalfa in late summer and added another 200 pounds of 60 percent potash fertilizer (0-0-60) at that time.

The stand on the field this summer proved the value of the effort. McKay harvested his 4-ton yield in two cuttings, which is as good as could be expected from alfalfa most anywhere in the state.

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B-1617-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
Saint Paul 1, Minnesota
August 21, 1957

Immediate Release

FARM ELECTRIFICATION SHORT COURSE SCHEDULED

A Farm Electrification and Materials Handling short course will be held Oct. 24 and 25 on the University of Minnesota St. Paul campus, according to J. O. Christianson, director of agricultural short courses.

Program chairman for the event is V. M. Meyer, University agricultural engineer. The course will feature ways to put electricity to work on the farm.

Specific topics will include rural youth participation electrification projects, electric house heating, materials handling, using audio-visual aids in teaching electrification and educational television.

For more information, write to the Director of Agricultural Short Courses, University of Minnesota, Institute of Agriculture, St. Paul 1.

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B-1618-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
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August 21, 1957

Immediate Release

ASTER YELLOWS HITS POTATOES, FLAX

Purple Top, an insect-spread plant disease, has taken a heavy toll of potato crops in certain fields in Minnesota this year.

This disease is caused by the aster yellows virus which also has attacked state flax fields this summer, according to Herbert Johnson, extension plant pathologist at the University of Minnesota.

Unfortunately, it's too late to do anything about purple top in potatoes when you see the symptoms. The only way to control it is to attack the six-spotted leafhoppers--the insects that carry the disease--early in the growing season.

Prevalence of the disease this year in potatoes has varied from insignificant attacks to 95 percent infection in a single field, says Johnson. As a result of the disease, yields are lowered, spuds from infected plants are smaller in size and they tend to be spongy.

Seed pieces from infected plants often have hair sprouts instead of normal sprouts. Also, seed pieces from infected plants frequently produce plants with less vigor, even though the virus itself isn't present.

Symptoms of Purple Top vary according to potato varieties. Red tuber varieties of potatoes have a purpling in the upper leaves, along with leaf curling, wilting, and yellowing. Finally, the plant may die.

Russet and white potato varieties don't have the purple pigment, but show the same other symptoms as do the red varieties. In general, red potatoes seem to be more widely attacked by this disease.

Although it's known as "Purple Top" only in potatoes, aster yellows affects some 300 different plants. Other common species susceptible to the disease include Canada thistle, carrots and celery.

(more)

Page 2, Aster Yellows Hits Potatoes, Flax

Apparently, the initial source of the Purple Top virus in the spring is perennial plants that were infected the year before, Johnson says. Leafhoppers then spread it to potatoes and other crops.

Oddly enough leafhoppers don't seem to carry the disease from one potato plant to another. Instead, all infection must come from a source outside the potato field. That explains why infection is often so spotty within a field.

Also, the disease is not carried in the tubers from one year to the next. For that reason, the disease is not controlled through seed certification.

The reason for the unusually high occurrence of Purple Top and other forms of aster yellows disease this year was the high population of leafhoppers. DDT spray or dust is the best known insecticide for controlling these pests, but must be used early in the summer.

Since spraying must be done before Purple Top symptoms appear, Johnson advises potato growers to plan on keeping close check on populations of these insects next year. County agents get weekly copies of insect survey reports. If leafhopper populations are high, spraying should start in early June and be continued every 5-10 days until August.

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B-1619-pjt

RELIABLE RECIPE IMPORTANT FOR GOOD PICKLES

A reliable, up-to-date recipe is one of the keys to success in making dill and other pickles, according to Verna Mikesh, extension nutritionist at the University of Minnesota.

Dill pickles cause homemakers the most trouble, Miss Mikesh reports. She points out that genuine fermented dill pickles, which depend upon bacterial action for their flavor, are most successfully made in a stone jar.

A reliable U. S. Department of Agriculture recipe for fermented dills calls for 40 to 50 4-inch cucumbers, 3/4 cup whole mixed pickling spices (optional), fresh or dried dill, 2 cups vinegar, 1 1/2 cups salt and 2 gallons cool water.

Place half the spices and a layer of washed dill in the bottom of a clean five-gallon stone jar. Fill the jar with washed, drained cucumbers to within 4 or 5 inches of the top. Pour the salt, vinegar and water mixture over the cucumbers, and put a layer of washed dill and the spices over the top.

Cover the jar with a heavy plate weighted with a water-filled fruit jar to keep cucumbers under the brine. Use only enough brine to cover the plate, as additional liquid is drawn out of the cucumbers. Keep the cucumbers at room temperature (70°) and each day remove the scum that forms on top. Let the pickles ferment until they are clear, with no white spots when cut. The process will take two or three weeks.

Pack cured pickles into hot sterile glass jars, strain the pickle brine, bring it to a boil and pour it over the pickles to within one-half inch of the top of the jar. Be sure pickles are covered with brine. Before pouring brine over the pickles, 1/4 cup hot vinegar may be added to each quart. Seal the jars.

To insure success in making fermented dills, Miss Mikesh stresses the importance of keeping in mind these points:

- Use good-quality, freshly picked cucumbers.
- Wash cucumbers thoroughly to remove the soil. Rub stem and blossom ends gently with a rough cloth, as spoilage bacteria often lodge in these areas.
- Pour cool brine over cucumbers that you intend to ferment. Hot brine kills the fermentation bacteria.
- Remove scum as it forms.
- Be sure every bit of cucumber is covered with brine, because undesirable bacteria may grow on the exposed cucumber and cause spoilage.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 22, 1957

SPECIAL TO: St. Paul Pioneer Press
THE FARMER

CAPTION FOR PICTURE:

Rudy Mohr, Pine Island, Minn., dairy and poultry farmer, brushes the top of milk bulk tank in his electrically-equipped milk house. He has found that electrical equipment has been a big aid to producing high quality milk.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 22, 1957

SPECIAL TO WEEKLIES

CAPTION FOR MAT: These beef cattle are part of a research project at the University of Minnesota's Rosemount Agricultural Experiment station, and are helping farmers and scientists find the answers to problems in modern beef production. The building here is a pole-type structure and is recommended for beef animals in Minnesota. Results of recent experiments with these cattle will be reported at the Beef Cattle-Grassland Field Day, Sept. 19, at the Rosemount station.

BEEF GRASSLAND DAY
SCHEDULED AT
ROSEMOUNT STATION

Beef feeding experiments, pasture trials, bloat research and a look at future beef cattle prospects--those are key topics for the annual Beef Cattle-Grassland Field Day Sept. 19 at the University of Minnesota's Rosemount Agricultural Experiment station.

"Weekly vs. daily rotational grazing" for beef cattle will be reported by A. R. Schmid, University agronomist. He will discuss tests in which beef cattle have been pastured in lots big enough for a week of grazing, compared to pastures just large enough for a day at a time.

P. M. Burson, University soils scientist, will talk on "Pasture fertility and beef production." Burson will discuss whether fertilizing pastures pays off in increased gains, less bloat or in other benefits for beef animals.

What is known about the bloat problem will be the topic for C. E. Stevens, veterinary research worker at the University.

Beef cattle feeding experiments will be viewed by three University livestock scientists--A. L. Harvey, W. J. Aunan and O. E. Kolari. In recent experiments, they have been testing stilbestrol and terramycin, stilbestrol--fed and implanted--and dynafac, stilbestrol and grain on pasture, linseed oil meal and soybean oil meal and silage for wintering calves.

Last year, the researchers found that implanting stilbestrol increased gains in beef cattle, but, at the levels used, resulted in unfavorable "side effects"--high tailheads and low backs on the cattle.

In recent experiments, though, cattle have been implanted at 10-, 20, and 30 milligram levels to see if gain increases can be obtained without the side effects.

Norris K. Carnes, manager of the Central Livestock association, South St. Paul, will look into the future with a topic on "Beef cattle prospects for 1958."

The program will start at 1 p.m. All interested persons are invited to attend.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 22, 1957

Editor's Note: This is
a joint release from the
University of Minnesota
and the Minnesota Academy
of Science.

SPECIAL to Weeklies
For Week of August 26

CEDAR CREEK LAB
TO BE DEDICATED
IN SEPTEMBER

The University of Minnesota and the Minnesota Academy of Science will jointly dedicate a new laboratory building at the University's Cedar Creek Forest near Isanti at 2 p.m., Saturday, Sept. 14.

This laboratory will be dedicated to research and education in the biological sciences, according to A. N. Wilcox, University horticulture professor and director of the Cedar Creek Forest and Harold T. Peters, president of the Minnesota Academy of Science and professor at Bemidji state college.

The entire public is invited to the dedication, which will be part of the annual meeting of the Minnesota Academy of Science.

Principal speaker for the event will be Stanley Cain, head of the department of conservation at the University of Michigan. Theodore C. Blegen, dean of the University of Minnesota's graduate school, will preside at the ceremonies.

Built primarily with funds donated to the University by the Max C. Fleischmann foundation, Nevada, the laboratory building has a map room, three research laboratories, an assembly room and small dormitories. It is unique in Minnesota in this respect: it will be available for study and research by all colleges in the state.

There are 3,600 acres in the Cedar Creek Forest. At present, several research projects on wildlife, plant life and other matters of interest to students and the Minnesota public are being conducted there, according to Wilcox and Peters.

The forest is about 25 miles north of the Twin Cities and 6 miles south of Isanti, Minnesota. It is located along the north border of Anoka county and in the southern tip of Isanti county.

The entire area is a refuge; it is not open to hunting or picnicking.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 22, 1957

For Release at noon,
Monday, August 26

CHEMICAL EFFECT ON CANADA THISTLE REPORTED

STANFORD, CALIF.—University of Minnesota scientists have discovered one reason why it's so difficult to completely wipe out Canada thistles with one application of present-day chemicals.

R. A. Herrett, Minnesota plant physiologist, told the American Institute of Biological Science meeting here today that greenhouse tests show amino triazole, when sprayed on Canada thistles, doesn't affect growth in all parts of the plants.

Agronomists have found that amino triazole gives satisfactory control of Canada thistles, but there are always some plants left after treatment. The same thing is true with quackgrass, which, like Canada thistles, spreads by underground stems called "rhizomes."

Herrett and A. J. Linck, another Minnesota plant physiologist, found that plant sugar from unaffected parts of a Canada thistle plant seems to move into leaves that were affected by the chemical, enough so the plant can recover.

It's possible, with heavy doses of the chemical, to prevent seed production and kill individual Canada thistle plants that were sprayed. But Herrett pointed out that the problem is, new plants can grow from the underground rhizomes even when plants are sprayed. So far, it seems to be difficult to stop rhizome growth with field applications of amino triazole.

New leaves that appear shortly after the plant is sprayed are white instead of green like normal leaves. Herrett and Linck found that amino triazole immediately interferes with respiration—sugar breakdown necessary to plant growth—in these leaves.

The white leaves can't produce plant sugar themselves, but Herrett and Linck found that sugar tends to accumulate in them anyway, and apparently comes from unaffected parts of the plant.

Leaves already on the plant at spraying time are unaffected by amino triazole; only the ones that appear after spraying turn white. Herrett and Linck suspect that plant sugars from these old leaves help the plant to stay alive.

This research, Herrett said, gives some of the background needed in developing chemicals that will more effectively kill Canada thistles and similar weeds.

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B-1621-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 22, 1957

Immediate Release

SMALL AND MEDIUM EGGS GOOD BUYS

The highest quality eggs--and the best buys--come in small packages at this time of year.

The small eggs now on the market are of exceptionally high quality because the first eggs a pullet lays are her best, according to Cora Cooke, extension poultry specialist at the University of Minnesota. For that reason, Grade A small or medium-sized eggs are likely to be of higher quality than large eggs of the same grade. In late summer and early fall, small or medium-sized eggs are also usually easier on the budget than large eggs because they are in more plentiful supply, Miss Cooke says.

When it comes to selecting the size of eggs to buy, Miss Cooke gives this rule-of-thumb for food shoppers to remember: Grade A medium eggs are a good buy when they are more than one-eighth less than the price of Grade A large eggs. Small eggs are a good buy when they are more than a fourth less than the price of large eggs of the same grade.

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B-1622-jbn

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 22, 1957

Immediate Release

ELECTRICITY AIDS GOODHUE COUNTY DAIRY FARMERS

RED WING--Electrical power can be more than an "extra hand" around a farm. When put to the right uses, it also helps the farmer produce better quality milk and aids his profits from other farm enterprises.

Two Goodhue county farmers--Felix Mahoney, Red Wing and Rudy Mohr, Pine Island-- will testify to the truth of that statement. Both of them have put electricity to work in a number of ways and say now they wouldn't be without a single one of their electrical "helpers."

Mahoney says that he found more electrical equipment necessary to solve the manpower problem. His brother had been working for him until he went into service a few years ago. So at that time, Mahoney installed a pipeline milking unit, barn cleaner, bulk tank and electric cow trainers. Some of the equipment was furnished by a local equipment dealer, so that Mahoney's farm could be used as a demonstration farm for electricity.

"With that equipment, my family and I can now handle 30 cows with the time and effort that was needed before to take care of 20," Mahoney says. And when necessary, Mrs. Mahoney and the children can do all the dairy barn chores except the actual milking, thanks to the automatic barn cleaner and other electrical aids.

Cleaning the dairy utensils is no longer a prolonged task on the Mahoney farm. The "cleaned-in-place" pipeline is cleaned automatically after each milking. That is also a sanitation aid and helps make it possible for the Mahoneys to market their milk on a grade A market.

Rudy Mohr says that electrical equipment has ended the heavy "back work" in farm chores. He now has a silo unloader, pipeline milker and bulk milk tank, water heater, barn cleaner, electric hay hoist, and an automatic electric feeder in the poultry house.

This dairy equipment makes it possible to milk all of his 37/^{milk} cows in about an hour. And unlike a few years ago when he didn't have all this equipment, Mohr says

(more)

milking no longer keeps two men tied up. "Now the hired man can easily do the milking while I'm doing other chores," he says.

Mohr points to a number of ways in which electricity has reduced the back work around his farm. "With the pipeline milker, there's no can or pail lifting, no milker pails to move from cow to cow. The barn cleaner eliminates another hard task.

"The silage unloader means we no longer need to climb into the silo where the unloader is installed. That is a safety and time-saving advantage. Second, the unloader takes out frozen silage as easy as when it's not frozen. Forking out frozen silage by hand is always especially hard work."

An electric hay hoist in the barn mow helps simplify haying on the Mohr farm. Normally, with a hay fork, someone needs to be operating a tractor that pulls the hay fork up into the mow from the wagon. But Mohr has an electrically-operated winch that can be operated easily by the same person who "sets" the fork into the hay on the wagon.

Taking care of an 800-hen laying flock is no difficult task for Mohr, thanks to an electric, automatic feeder setup. In addition, this type of feeder helps prevent diseases and keep the birds in good health. Mohr explains that there is never any old feed in the bottom of the automatic feeder, as there always used to be with open, hand-filled feeding troughs.

The automatic feeder operates on the "shuttle" principle. There are two feeding troughs. When either one has all the feed cleaned up at the far end, an automatic switch engages and the feeder starts running. Feed comes from a hopper in the feed room. As the feeding troughs vibrate back and forth all the feed moves along the trough and none is allowed to gather in one place.

The birds tend to eat near the feed hopper end of the trough first and don't eat from the end where the switch engages until the rest of the trough is cleaned up, Mohr says. That way, no old feed is ever left in the trough.

Mahoney and Mohr are both long-time cooperators with Goodhue County Agent G. J. Kunau. In recent years, both farms have been stops on farm electrification tours set up by Kunau and the County Electric Cooperative for other local farmers.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 22, 1957

Immediate Release

STATE HORTICULTURAL SOCIETY GIVES AWARDS

Six outstanding horticulturists received honorary awards from the Minnesota State Horticultural society at its recent annual Garden Forum convention in Thief River Falls.

Bronze medals for "achievement in horticulture" went to Edgar C. Lehman, Faribault nurseryman, nationally known for breeding work in chrysanthemums and daylilies, and to Henry J. Rahmlow, Madison, Wis., secretary of the Wisconsin State Horticultural society.

Four members of the Minnesota State Horticultural society received distinguished service certificates for "distinguished service to horticulture": Mrs. A. S. Gowen, Excelsior; Mrs. A. W. Tenhoff, Mountain Lake; Rene J. Dufourd, 5020 Second ave. S., Minneapolis; Joseph M. Witmer, 255 Oakwood rd., Hopkins.

Fifteen additional home gardeners will receive award of merit certificates for "meritorious service to horticulture," according to Curtis N. Rice, Jr., president of the society. These awards will be presented at local district horticulture meetings later in the year. Recipients of these awards for 1957 will be: Mrs. Fred Anderson, 1110 South Sixth St., Brainerd; Mrs. P. C. Berberich, Ada; Mrs. Bertha Biskey, Wabkon; Mrs. Harold Gee, Taopi; Mrs. Lewis Gemmill, Alpha; Mrs. A. C. Heritage, 1310 Ninth Ave., International Falls; Mrs. Donald Lansing, St. Cloud; Mrs. Leonard Pasell, 4711 Oneida Street, Duluth; Mrs. T. N. Samuelson, Comfrey; Wilbert G. Sindt, 1847 N. McKnight road, North St. Paul; Mrs. Martha Sugden, Hallock; Mrs. William Thorne, 8327 Dupont Ave. S. Minneapolis; George Tyache, 918 Woodland Ave., Duluth; Mrs. Elmer Widmark, 307 North Fifth Street, Brainerd; Mrs. G. C. Tyler, 2184 Charlton Ave., St. Paul.

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B-1624-jbn

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minn.
Aug. 23, 1957

Handwritten signature: Mark Berg

Special to Ramsey Co.

(with mat)

ASS'T HOME AGENT
FOR RAMSEY COUNTY

Mrs. Doris Carlson Waring, will join the Ramsey county Agricultural Extension Service staff September 3 as assistant home agent.

She will work with Home Agent Marian Nelson on the home economics phases of the L-H program, as well as the extension home program.

Mrs. Waring received her bachelor of science degree with a major in home economics from the University of Minnesota in June. While at the University, she was social chairman and treasurer for Clovia, L-H society. She was also a member of the Home Economics association and the Toastmistress organization.

For three summers - 1954, 1955, 1956 - she served as L-H assistant in Ramsey county.

As a L-H club member in Beltrami county for 10 years, Mrs. Waring carried home economics, baby beef and junior leadership projects and was an active demonstrator.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 23, 1957

Special to Twin City Outlets

FORESTRY SCHOOL RECEIVES RENEWAL OF GRANT FOR TREE IMPROVEMENT RESEARCH

Resources for the Future, Inc., a non-profit foundation promoting research in the conservation of natural resources, has renewed its \$6,000 grant to the University of Minnesota School of Forestry, it was announced today by Frank H. Kaufert, director of the School of Forestry.

The grant will be for the academic year 1957-58 and the fund will be used to enlarge the research and training program in forest genetics under the direction of Scott S. Pauley, professor of forestry.

Current research is being conducted chiefly on fundamental genetic studies of aspen, jack pine, white and black spruce, paper birch, basswood, red oak, and the elms.

New graduate students who will begin training in forest tree genetics in this program under Pauley are: George M. Blake, Moscow, Idaho., W. Peters, Appleton, Wisconsin, Knud E. Clausen, Minneapolis, formerly of Denmark, and Soon Chul Hong, Korea.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minn.
Aug. 23, 1957

Special file
Special to Ramsey Co.

(with mat)

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FOR RAMSEY COUNTY

Mrs. Doris Carlson Waring, will join the Ramsey county
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She will work with Home Agent Marian Nelson on the home
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in home economics from the University of Minnesota in June. While at
the University, she was social chairman and treasurer for Clovia, 4-H society.
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organization.

For three summers - 1954, 1955, 1956 - she served as 4-H
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carried home economics, baby beef and junior leadership projects and was an
active demonstrator.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minn.
Aug. 26, 1957

Special to
Special to Lac qui Parle Co.

(with mat)

ASS'T HOME AGENT FOR COUNTY

Mrs. Barbara Larson, Montevideo, will assume the duties of assistant home agent for Lac qui Parle county on September 3.

She will work with County Agricultural Agent George Gehant on the 4-H program and will be responsible for the home economics extension program, including leader training meetings. She will work four days each week.

Mrs. Larson served as assistant home agent on a part-time basis in Big stone county from October, 1956 to April, 1957. She was also an assistant home agent in Lincoln county for a short time, while the home agent was on leave of absence.

Mrs. Larson received her bachelor of science degree from the University of Minnesota in 1955, with a major in home economics. While at the University she was an active member of dramatic and church youth groups.

For 12 years she was a 4-H member in Yellow Medicine county and during that time carried projects in home economics and livestock, as well as in livestock judging. She was an active demonstrator and junior leader. For two years she was a member of the Yellow Medicine Rural Youth group. She was 4-H club assistant in Yellow Medicine county from March to September, 1953.

-jbn-

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
August 26 1957

To all counties
For use week of
September 2 or after

FARM FILLERS

Turkeys develop some immunity to bluecomb when they recover from this disease. But they don't pass this immunity on to their young, according to J. T. Tumlin and B. S. Pomeroy, veterinary scientists at the University of Minnesota.

* * * * *

In the long run, the best way to control brush in forests seems to be a combination of things -- maintaining a good stand of trees, encouraging fast regrowth after cutting and encouraging understory trees that blanket out brush species. Chemical spraying also has a place in brush control, according to forestry researchers at the University of Minnesota.

* * * * *

No plant diseases caused any severe damage on oat crops this year in Minnesota, according to Herbert Johnson, extension plant pathologist at the University of Minnesota. One reason, he says, is that more farmers are raising disease-resistant oat varieties.

* * * * *

Implanting stilbestrol in beef cattle increased gains in 1956 University of Minnesota tests, but also resulted in some unfavorable "side" effects. The material had been implanted at 36 milligrams per animal. This year, livestock specialists are comparing 10, 20 and 30 milligram levels to see if it's possible to get gain increases without the side effects.

* * * * *

A simple electrical device recently developed by the U. S. Department of Agriculture may help farmers tell when they need to irrigate. The device is an indicator of plant moisture needs.

* * * * *

Number of bulk tanks doubled on American farms both in 1955 and again in '56. It rose to nearly 60,000 8 months ago, with more than 600 milk plants receiving part or all their milk by bulk.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
August 26 1957

To all counties
For use week of
September 2 or after

A U. of M. Ag. and Home Research Story

SPRAYING EGGS
PROTECTS QUALITY

A hand sprayer can help boost the quality of eggs you sell, according to County Agent _____.

He points to recent research by Milo Swanson, poultry scientist at the University of Minnesota. Swanson found that eggs sprayed with egg processing oil shortly after they were gathered were still 95 percent grade A or better after 12 days of storage at 75-85 degrees.

Untreated eggs stored for the same length of time and at the same temperature were only 12 percent grade A or better.

It's been known for some time that completely dipping eggs in oil will keep them higher in quality. Oiling prevents natural carbon dioxide in eggs from escaping. Carbon dioxide keeps albumen and yolk in eggs more stable, meaning if the gas isn't lost, eggs stay fresh longer.

What Swanson found, though, was that simply spraying the eggs after they're put small-end down into "filler-flats" is as effective as complete dipping in oil. And spraying is much simpler and more sanitary for the egg producer. This practice also costs very little, Swanson adds.

Oiling, though, won't prevent spoilage in dirty eggs, Swanson points out. Nor will it avoid spoilage resulting from poor washing practices. Spraying is most effective when done on naturally clean eggs the same day they are gathered.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
August 26 1957

To all counties
For use week of
September 2 or after

ATT: 4-H CLUB AGENTS

COUNTY 4-H'ER
WILL ATTEND
HEALTH CAMP

_____ , _____ , _____
(name) (age) (address)
has won a trip to the State 4-H Health Achieve-
ment camp for (his, her) record in the 4-H health activity, announces Club (County)
Agent _____ .)

The camp will be held at the University of Minnesota's Forestry and Biological station in Itasca State park September 15-18.

More than 100 boys and girls who will attend the camp from all parts of the state were selected on the basis of their contributions toward improving health conditions in their homes and communities, their personal health records and their ability to bring back useful health information to fellow club members.

The health camp is being sponsored for the fifth year by the University of Minnesota Agricultural Extension Service in cooperation with the Minnesota Tuberculosis and Health association and the Minnesota State Department of Health.

J. A. Folger and company is providing funds for the camp.

Three days of group workshop sessions in which 4-H members will participate will be devoted to planning the health program in 4-H clubs, personal health habits, home sanitation for healthful living, "Do People Like You?" and "Teeth are to Keep."

Aubrey Gates, executive director, Council on Rural Health, American Medical association, will speak at the banquet September 17. Assemblies will feature special speakers who will talk to the group on subjects relating to health.

A highlight of the camp will be announcement of the 1957 health achievement winners -- outstanding boy and girl in the state in health activity.

_____ county's representative at the health camp has many achievements to (his, her) credit in the 4-H health activity. (Give a short account of some of the activities of your delegate in health, especially in making the farm or community a more healthful place.)

-jbn-

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
August 26 1957

To all counties
For use week of
September 2 or after

BORON DEFICIENCY
MAY SHOW UP
IN SOME AREAS

In some areas of Minnesota, farmers working for top alfalfa yields may need to add boron to the soil, according to County Agent _____.

Charles Simkins, extension soils specialist at the University of Minnesota, says that in some sandy soils in eastern Minnesota, boron deficiency has shown up where heavy rates of lime and potash fertilizer have been used. More lime and fertilizer increase plant growth. And increased growth means plants use up more of the soil supply of boron.

Most of this trouble, Simkins says, is more likely to occur on legumes, which require more boron than most other crops.

When alfalfa is boron-deficient, leaves near the growing point turn yellow and may have a reddish tinge. Flowers fail to form and buds show up as white or light brown dead tissue.

Lower leaves, though, keep a healthy color. Later on, the plant grows out at the sides and the yellow and reddish growing points may no longer be seen.

Symptoms of boron deficiency are more likely to show up in dry weather according to J. M. McGregor, University soils scientist. And fortunately, the symptoms may raise the warning signal before the deficiency causes any important yield decrease.

Don't confuse boron deficiency and leafhopper damage. Boron deficiency results in shorter distances between the nodes on plant stems, which doesn't occur with leafhoppers.

Where legume fields show a lack of boron, it's wise to apply 20-30 pounds of borax per acre. This material contains 10 percent boron. Don't apply more than that rate, though, or plants may be "burned".

Boron-containing fertilizers are available, too. One such mixture is 0-9-27B, with "B" meaning it contains about 2 percent boron.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
August 26 1957

To all counties

For use week of
Sept. 2 or after

MAKE KITCHEN
SHIFT FOR
EFFICIENCY

Many _____ county homemakers could make their kitchen work easier and speedier by merely relocating food supplies and equipment, says Home Agent _____.

Even modern, well planned kitchens usually can benefit from simple reorganization.

In a study of 50 kitchens in rural homes, the Wisconsin Agricultural Experiment Station found that work was made easier in every kitchen by changing items of food and equipment to places where they were easier to use.

In almost 90 percent of these kitchens, homemakers had to walk 650 feet or more in preparing two standardized meals. When the kitchens were reorganized so that things were kept in more convenient places, the average distance saved was 171 feet -- or about 18 miles a year. This saving called for no remodeling or expense.

All the kitchens in the study needed some changes for improving efficiency. About half the items of food and equipment needed to be moved for greater convenience. The area around the range needed reorganizing more often than other parts of the kitchen.

The home economists who made the study offer these tips for efficient kitchen reorganization:

1. Store things close to where you usually use them first, for example, saucepans near the sink where you put water in them before they go to the range, but frying pans near the range.

2. Have "extras" of the inexpensive items you use in several places in the kitchen -- a set of measuring cups and spoons near the range and another set near the mixer. Keep a small supply of flour near the range for thickening gravies and sauces, but keep the main supply in the mixing center. Have salt at the range and mixing center.

3. Keep all materials you will use on a particular job in one place. For frying fish, as an example, have frying pan, flour, frying fat and fork close to the range.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1 Minnesota
August 26 1957

To all counties
For use week of
September 2 or after

SOFT CORN CAN
MAKE GOOD FEED
IF HANDLED RIGHT

Unless we have especially good corn weather in September, many farmers in Minnesota may have soft corn this fall.

But corn that freezes before it gets ripe doesn't have to be lost, says Bill Hueg, extension agronomist at the University of Minnesota. It does need to be handled in a special way, though, to save the most feed value.

There are several ways you can harvest soft corn, according to Hueg.

First, it can be put in temporary cribs. These cribs need to be long and narrow rather than round, to allow for maximum drying. The crib shouldn't be more than four feet wide and the entire crib should be above ground to get complete air circulation.

Second, soft corn can be stored in permanent cribs fitted with ventilator flues, for cribs that are more than four feet wide. Anything that allows a column of air to pass through the corn easily will hasten drying and reduce storage losses.

Third, you can save most of the feed value in soft corn by making it into silage. Use temporary silos if there isn't enough permanent storage space. And if silo space is extremely short, it might be best to make ear corn silage out of soft corn.

Fourth, you can delay harvesting if the corn is frozen before safe cribbing time. Then the corn will dry more on the stalk and you can avoid spoilage that might otherwise occur in the crib.

Finally, you can pick the corn, remove the husks and put the corn in a crib. That will make soft corn dry much better. The time you spend doing this while cribbing the corn can mean money earned at market or feeding time.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 27, 1957

Special to Twin City Outlets

FORESTRY SCHOOL RECEIVES RENEWAL OF BLANDIN FOUNDATION GRANT

A third annual grant of \$5,000 has been received from the Charles K. Blandin Foundation of Grand Rapids, Minnesota, the University of Minnesota School of Forestry announced today.

The grant will be for the academic year 1957-58 and will insure continuation of the School of Forestry's research and training program in forest genetics.

Under the direction of Scott S. Pauley, professor of forestry, the research program is carried on by graduate students and in cooperation with the University's North Central School and Experiment Station, the School's Cloquet Experimental Forest, the Blandin Paper Co., the Diamond Match Co., and other agencies throughout the state. Principal nursery facilities are at the University's North Central School and Experiment Station, Grand Rapids, Minnesota where propagation activities are supervised by the resident forester, William H. Cromell.

Fundamental and applied research in forest genetics is conducted chiefly on the aspens or popples, jack pine, white and black spruce, paper birch, basswood, red oak, and the elms.

Graduate students currently working in the tree improvement program are Thomas D. Rudolph, Bowlus, Minnesota; Ronald E. Schoenike, Winona, Minnesota; George Blake, Moscow, Idaho; William J. Peters, Appleton, Wisconsin; and Knud E. Clausen, Minneapolis, Minnesota.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 27, 1957

For Release at 5 p.m.
Wed., Aug. 28

ANTIBIOTIC CAUSES TUMOR-LIKE BODIES IN PLANT DISEASE SPORES

STANFORD, CALIF.—Antibiotics have caused cancer-like growth in spores of plant disease fungi, two University of Minnesota scientists reported here today.

J. J. Christensen, head of the University's plant pathology department, and Patricia Allison, plant pathologist, told the annual meeting of the American Institute of Biological Sciences that filipin, an antibiotic, added at certain levels to *Helminthosporium* spores caused tumor-like bodies and general abnormal growth either within the spore or in the young sporeling.

This finding may have an important bearing on developing control measures for some plant diseases, the scientists added.

Helminthosporium is a blight disease that has been a major problem in wheat and barley in past years.

Christensen and Miss Allison had used filipin to induce mutations in Helminthosporium sativum organisms. Reason for these tests was first, to find out, under controlled laboratory conditions, how frequently mutations in plant disease organisms may occur in the field, and second, to give background information on how these diseases may be controlled.

A mutation is a spontaneous change in the genetic character of an organism that makes it unlike its parents. Naturally-occurring mutations often result in new races of plant diseases that will attack crops that are immune to other races or strains of the same disease.

The researchers found that adding filipin at low levels to *Helminthosporium* spores produced such mutations, while high levels stopped growth completely. Intermediate doses, though, caused the abnormal growth and tumor-like bodies to form.

These bodies resembled galls or tumors that are known to be produced by bacteria and viruses in seed-bearing plants, Christensen and Miss Allison said.

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University Farm and Home News
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University of Minnesota
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For Release Thursday,
August 29, 1957

GROWTH REGULATORS INCREASE LASTING QUALITY OF POINSETTIAS

STANFORD, CALIF.—Applying chemical growth regulators to blooming poinsettias shows promise of increasing the lasting quality of this popular Christmas plant in the home.

Floriculturist R. E. Widmer from the University of Minnesota reported here today that a material called p-chlorophenoxyacetic acid—usually used for improving fruit set on field grown tomatoes—was more effective than a half dozen other growth regulators in experiments he recently conducted.

Widmer spoke this week at a meeting of the American Institute of Biological Sciences.

Purpose of this work, Widmer said, was to find a way to keep the showy red bracts—often thought of as flowers—of poinsettias to stay on the plants for a longer time.

Treated plants under conditions more severe than would be found in most homes dropped only one-fourth to one-half as many of the bracts as did check plants three weeks after treatment.

Five weeks after being treated, the treated plants had lost only one-fifth to one-sixth as many red bracts as did untreated plants.

Growth regulators shouldn't be applied by consumers, but rather by greenhouse operators, Widmer said. The reason is that only a minute quantity of the growth regulator should be used. A slight excess might result in distorted growth or injury to the plant.

Although p-chlorophenoxyacetic acid shows great promise, further experimental work is needed before the practice can be recommended for widespread use, Widmer added.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 26, 1957
27,

Immediate Release

EDITOR'S NOTE: This is a joint release from the University of Minnesota and the Minnesota Academy of Science.

LABORATORY AT CEDAR CREEK FOREST TO BE DEDICATED

A new laboratory building at the University of Minnesota's Cedar Creek Forest in Anoka and Isanti counties will be jointly dedicated by the University and the Minnesota Academy of Science at 2 p.m. Saturday, Sept. 14.

Ceremonies will be part of the annual meeting of the Academy. The entire public is invited, according to A. N. Wilcox, University horticulture professor and director of the Cedar Creek Forest and Harold T. Peters, president of the Minnesota Academy of Science and professor at Bemidji state college.

Stanley Cain, head of the University of Michigan's department of conservation, will be principal speaker for the event. Presiding at the ceremonies will be Theodore C. Blegen, dean of the University of Minnesota's graduate school.

The laboratory building was built primarily with funds donated to the University by the Max C. Fleischmann Foundation, Nevada. It has a map room, three research laboratories, and an assembly room and small dormitories. It is unique in Minnesota in this respect; it will be available for study and research by all colleges in the state.

Several research projects on wildlife, plant life and other matters of interest to students and the Minnesota public are being conducted at the Forest and will be expanded as a result of the new laboratory facilities, according to Wilcox and Peters.

There are about 3,600 acres in the Cedar Creek Forest. It is about 25 miles north of the Twin Cities and about 6 miles south of Isanti. The entire area is a refuge; it is not open to hunting or picnicking.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 27, 1957

Immediate Release

THREE CONTESTS SCHEDULED FOR SILVER SOIL CELEBRATION

Three state-wide contests--the State Plow Match, land judging and a Queen of the Furrow contest--will be held as part of the Silver Soil Celebration Sept. 13 and 14 in Winona county.

The Silver Soil Celebration, similar to "Plowville" held in recent years, will be on the Renk Bros. farm six miles south of Winona.

In the Plow Match, 8 finalists in contour plowing and 8 in level land plowing will compete for a state title in each division.

More than 200 4-H and FFA youths in three-man teams will compete in the land judging contest. They will classify three land areas according to soil capability and make recommendations for management of these fields.

In the Queen of the Furrow contest, a winner will be selected according to tractor driving skill and general knowledge of soil conservation.

The event will also feature soil conservation demonstrations, field demonstrations on pasture management, fertilizer use, weed control, forest management and contour fencing, and tours of the Gilmore Valley Watershed Area. General theme of the event will be the success of the Gilmore project, started 25 years ago.

In the headquarters area, there will be some 50 exhibits.

Feature speakers at the event will be Harold Pederson, extension agricultural economist at the University of Minnesota, Governor Orville Freeman and W. H. Kircher, managing editor of THE FARMER magazine.

Sponsors of the Silver Soil Celebration are the Minnesota Association of Soil Conservation District Supervisors and Station WCCO.

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University Farm and Home News
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August 28, 1957

Special to Twin City Outlets

MYERS HEADS "GOLDEN JUBILEE" AGRONOMY MEETING

W. M. Myers, head of the department of agronomy and plant genetics at the University of Minnesota, will be general program chairman for the "Golden Jubilee" meeting of the American Society of Agronomy Nov. 18-22 at Atlanta, Ga.

Myers is now vice-president of the organization and will be named president during a dinner session Nov. 20 at the event.

More than 1,500 agronomists and other visitors will attend the November meetings.

The American Society of Agronomy is a national professional organization for agronomists and scientists in other fields related to crop production. It was founded in 1907 and now has more than 3,300 members in the U. S. and 50 other countries.

About 75 percent of the organization's members are employed by land-grant colleges and universities, the U. S. Department of Agriculture and other public-supported organizations.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 29, 1957

Special to Weeklies

DEMONSTRATIONS ARE
KEY FEATURE OF
"SILVER SOIL" MEET

Platoons of bulldozers, graders and other equipment will make a full-scale attack on soil erosion problems during the Silver Soil Celebration Sept. 13 and 14 on the Renk Bros. farm in Winona county.

While visitors watch, these machines will show how to set out contour strips and build terraces that will drain water around the hill instead of straight down.

Waterways, diversion terraces, detention dams and spillways will also take shape before visitors eyes. These conservation measures will help "hold the soil" on some 60 acres on the Renk farm.

In field plots, visitors will see plots comparing effects of high fertilizer rates compared with no fertilizer on corn. In pasture plots, there will be comparisons of fertilizer and no fertilizer and fall and spring renovation. There will also be a "live" demonstration of pasture renovation in progress.

Other field plots will show comparisons of different weed control methods, results of wheel track corn planting and farm woodlot management. A demonstration on using power-driven wooden posts for fencing contour strips is also scheduled.

Demonstrations will be conducted both days during the event. Also, on the first day, will be the state Plowing Matches. A land judging contest, Queen of the Furrow contest and a tractor safety demonstration are scheduled for Sept. 14.

Featured noon speakers on Sept. 13 are Harold Pederson, extension agricultural economist at the University of Minnesota and Governor Orville Freeman. W. H. Kircher, managing editor of THE FARMER magazine will speak Sept. 14.

Visitors will see, by bus and by airplane, the Gilmore Valley Watershed project which was started 25 years ago. This was the first project of its kind in Minnesota. Recognition of the success of this venture is the general theme for the "Silver Soil Celebration."

Sponsors of the event are the Minnesota Association of Soil Conservation District and Station WCCO. Cooperating are the University of Minnesota Agricultural Extension Service, the Soil Conservation Service, the Minnesota Dept. of Conservation, the Agricultural Stabilization and Conservation Committee and several vo-ag teachers.

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 29, 1957

Immediate Release

PLASTIC COVER REDUCES SPOILAGE IN SILO

MONTEVIDEO--Spoiled silage can almost be a thing of the past for the farmer who covers his silo with a sheet of inexpensive plastic.

Ray Saienga, farmer here in Chippewa county, has evidence to prove that statement. A sheet of polyvinyl plastic covering eliminated surface spoilage in his upright silo and kept it down to a bare minimum in his horizontal bunker silo last winter.

The plastic cover is so effective that Saienga says "it doesn't pay to use a bunker silo without it."

Saienga's experience agrees with recent findings made by University of Minnesota agronomists. Experiments show that either polyvinyl or polyethylene make good covering for upright and bunker silos.

Chippewa County Agent Gene Pilgram reports several local farmers are following this practice, with good results.

Total surface spoilage often runs high in bunker silos, because there is more surface exposed to air than in an upright structure. Therefore, anything to keep air away from the surface will reduce spoilage. And plastic makes airtight covering possible.

Saienga built his 17 and 68-foot bunker silo a year ago. To make the walls airtight, he tarred them and covered them on the inside with sheets of plastic.

He put oats silage in the bottom and a 2-foot-thick layer of alfalfa silage on top. Then he covered the silage with two sheets of polyvinyl plastic and threw silage on top of the edges along the silo wall to keep it tight.

He used the same practice on top of silage in his upright silo.

By reducing spoilage, Saienga says, "I saved more than enough feed to pay for the cost of the plastic; I used to figure on 18 inches of spoiled silage when I opened the upright silo. And I can use the same plastic at least another year and maybe for a third year." He has a roof over his bunker silo, meaning the plastic there wasn't weakened by sun rays.

He first got the plastic cover idea three years ago when a plastic weather balloon dropped in one of his fields. "I had heard that you could cover silage with this plastic, so I tried putting it in the upright silo. I was amazed to find the following November that no silage on the surface had spoiled."

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B-1629-pjt

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 29, 1957

Immediate Release

YOU CAN FREEZE EARLY APPLES

Freezing is a satisfactory way of preserving some of the early apples many Minnesota families have in abundance in their backyards this year.

According to Shirley Trantanella and J. D. Winter of the University of Minnesota food processing laboratory, most firm-fleshed varieties of apples suitable for pie and sauce freeze well. Freezing tends to soften the texture of apples, however.

Here are the directions Miss Trantanella and Winter give for freezing apples:

Peel and cut apples into pie slices. To prevent darkening, submerge the slices for not less than 5 minutes in a sodium bisulfite solution prepared by dissolving 1 teaspoonful of sodium bisulfite (U.S.P. grade) in a gallon of cold water. Mix the solution in glass, earthenware, stainless steel or enameled container. Drain, then pack in sugar, using 5 to 7 pounds of apple slices to 1 pound of sugar, or about 10 cups of sliced apples to 1 cup of sugar. Sprinkle the sugar evenly over the slices, allow to stand for a few minutes or until the sugar is dissolved into fruit juice, then stir carefully until each slice is coated with sugar solution before filling the containers. Freeze immediately. The sugar may be omitted for those who do not eat sweetened fruits.

Sodium bisulfite may usually be obtained at drug stores or locker plants. If it is impossible to get sodium bisulfite, the University freezing food experts suggest this alternate method:

Soak apples for 15 minutes in a weak brine solution, using $\frac{1}{2}$ cup of salt to a gallon of water. Drain. Prepare a sugar syrup of 2 cups sugar, $\frac{1}{2}$ teaspoon ascorbic acid and 1 quart of cold water. Fill containers about a third full of the syrup and slice apples into it. Be sure the apples are covered.

Sodium bisulfite, however, gives the best results, keeping apples bright and crisp.

Directions for freezing apples and other fruits are given in Extension Folder 156, "Freezing Fruits and Vegetables," available from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul 1, or from county extension offices.

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B-1630-jbn

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 29, 1957

A FARM AND HOME
RESEARCH FEATURE

Immediate Release

RESULTS OF LONG-TIME FERTILIZER TRIALS EXPLAINED

Heavy doses of fertilizer containing phosphate and potash can pay off handsomely on alfalfa, regardless of whether the fertilizer is applied in spring or fall.

But applying nitrogen to alfalfa isn't likely to be profitable.

These conclusions are reported by J. M. MacGregor and J. R. Brownell, University of Minnesota soils scientists, and W. W. Nelson, now agronomist at the Northeast Experiment Station, Duluth.

This research has been conducted during the past 6 years at the Rosemount Experiment Station. Here are some examples of findings in these experiments:

On one set of plots, 1,000 pounds of fertilizer per acre was applied the spring before seeding and 200 pounds were topdressed annually. On half these plots, the scientist used 0-20-0 fertilizer (phosphate only and they used 0-20-20 phosphate and potash) on the others.

From 1951-56, plots receiving phosphate only averaged .62 tons annually more than unfertilized plots, while those receiving both nutrients yielded 1.32 tons more annually. Based on 1956 fertilizer prices, and figuring alfalfa at \$20 per ton, that meant \$6.12 more net income per acre each year from phosphate only and \$15.40 per acre from using fertilizer with both phosphate and potash.

In trials comparing 0-20-20 with 5-20-20 (a fertilizer containing nitrogen) yields over the same period were practically the same for the two different applications, meaning there was little value from adding nitrogen.

The scientists also found in these tests that on the Port Byron silt loam soil where these tests were conducted, adding boron alone or with other trace elements, didn't make any important increase in alfalfa growth.

Splitting the fertilizer into annual applications was better than putting about the same amount on the field in one application at seeding time. And finally, the soils men found, phosphate fertilizer boosted percentage of crude protein in alfalfa, while potash seemed to slight decrease the percentage of protein. Phosphate and potash together, though increased the total amount of protein per acre, though, since it increased total hay yield.

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University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 29, 1957

Immediate Release

STEELE COUNTY GIRL IS 4-H DRESS REVUE QUEEN

An attractive brunette 18-year-old girl from Steele county today was crowned 4-H dress revue queen at the Minnesota State Fair.

Arlys Borwege, Medford, won her crown in competition with 87 other county dress revue queens who modeled clothes they made themselves. Her award is a trip to the National 4-H Club Congress in Chicago in late November.

Queen Arlys wore a two-piece golden brown and black plaid wool dress, with slim skirt and blouson top with long black middy tie. Her accessories were a black hat, black purse, black shoes and golden brown gloves. She made the dress for \$18.

A member of the Medford Go-Getters 4-H club, Queen Arlys has carried the clothing project for eight years and makes many of her own clothes. She is the daughter of Mr. and Mrs. Herbert Borwege.

Selected attendants to the queen were Edna Louise Wilke, 21, Truman; Janice Clark, 17, Madison; Marlene Waletzko, 16, Willow River; and Karen Soderberg, 16, 1945 N. Asbury, St. Paul.

Edna's prize-winning costume was a beige Anglo wool coat with push-up sleeves. The loose back had a pleat inset. Her Kelly green gloves and hat matched her green wool dress and with her brown alligator shoes and purse completed her ensemble. Cost of making the coat was \$45.31.

The honor of being chosen attendant to the queen comes as a climax to Edna's 11 years in the 4-H clothing project, since she "graduates" from 4-H this year. Last year the Martin county girl won a trip to the National 4-H Club Congress in Chicago as state clothing achievement winner. She is the daughter of Mr. & Mrs. Wilke.

Janice modeled a brushed rayon cashmere-finish flannel two-piece dress with pleated skirt of brown, gray and black horizontal stripes. The medium-gray brushed rayon blouse had three-quarter-length sleeves and a shawl scarf in a stripe matching the skirt. The blouse and skirt can be worn together to make a complete outfit or can be interchanged with other skirts and blouses. She made the separates for
(more)

only \$6.00

This is the second year Janice has been chosen an attendant to the state dress revue queen. She has been a member of the Arena Gladiator's club in Lac qui Parle county for eight years and has carried the clothing project for six. She finds that making her own clothes is cheaper and "much more fun" than buying them. Her parents are Mr. and Mrs. Otis Clark.

Marlene was outfitted in a dress of navy blue cotton and silk fabric with varied size white polka dots in a striped effect. The sleeveless dress was styled with low neck and full skirt. Material for her dress cost \$4.46.

The Pine county girl has been a member of the Whispering Pines 4-H club for nine years and has carried the clothing project for three years. She is the daughter of Mr. and Mrs. Julius Waletzko.

Karen wore a charcoal gray cotton dress with a dark stripe fashioned in shirt-waist style with full skirt. The blouse, Peter Pan collar and short sleeves were trimmed with white lace. Her accessories were a white Breton sailor hat, white gloves, black patent shoes and black patent clutch purse.

A member of the Roseview 4-H club, the Ramsey county girl has carried the clothing project for five years. Each year she has made more of her own clothes. She is the daughter of Mr. and Mrs. O. R. Soderberg.

Each of the attendants received a skirt length of woolen yard goods from the Cooperative Wool Growers' association of Minnesota and South Dakota.

Choice of the queen and her attendants was based on grooming, posture, appropriateness of the costume to the girl, choice of fabric and workmanship.

Named blue ribbon winners in the 4-H dress revue were Shirley Lake, Aitkin; Gloria Hannay, Amboy; Mildred Seidl, Hanska; Karen Lea Bruss, Lindstrom; Sandra Bakken, Walnut Grove; Mary Chapin, Dodge Center; Rosemary Malmgren, Alexandria; Carolyn Dusek, Albert Lea; Janice Gulbranson, Spring Grove; Marlys Lidke, Ogilvie; Janet Nielson, Jackson; Marilyn Lindquist, Blomkest; Jean Tanner, Baudette; Gaile Aune, Henricks; Sylvia Jensen, Stephen; Erna Borstad, Slayton; La Donna Kuhlman, Eyota; Janice Anderson, Fergus Falls.

Janice Hilgren, Parkers Prairie; Elinor Gustafson, St. Hilaire; Virginia Fellingner, Pipestone; Ann Knutson, Starbuck; Marcella Sorenson, Morgan; JoAnn Meese, Kenyon; Ethelyn Brandli, Warroad; Sharon Murphy, Henderson; Myra Hanson, Clarissa; Trudy Raguse, Tenny; and Shirely Frisch, Minneiska.

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B-1632-jbn

University Farm and Home News
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
August 30, 1957

Special to Twin City Outlets

RUTFORD NAMED TO POST ON AMERICAN INSTITUTE OF COOPERATION

Skuli Rutford, director of the University of Minnesota Agricultural Extension Service, has been elected chairman of the Board of Trustees of the American Institute of Cooperation, which recently held its annual summer meeting at Colorado State university.

More than 2,000 farm business leaders, rural youth, teachers and government agricultural specialists met at the session.

The American Institute of Cooperation is an educational and research agency for farm cooperative business, with headquarters in Washington, D. C. It meets annually on the campus of a land-grant college.

Rutford has been Agricultural Extension director in Minnesota since 1954. He first worked in extension in 1924 and has served as agricultural agent in Yellow Medicine and South St. Louis counties. He joined the state specialist staff in 1937 and became assistant extension director in 1943.

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University Farm and Home News
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Special to Twin City Outlets
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RETIRED PLANT PATHOLOGY HEAD RECEIVES INTERNATIONAL AWARD

HAMBURG, GERMANY--E. C. Stakman, former head of the plant pathology department at the University of Minnesota, today received an international award for his scientific contributions to plant protection.

Stakman, who retired from the University staff in 1953, received the Otto Appel Medal at the opening session of the Fourth International Crop Protection Congress here. He is the first American to receive this medal since it was first awarded in 1952.

A widely-known plant pathologist, Stakman is now a special agricultural consultant for the Rockefeller Foundation. He has been an adviser to the Rockefeller agricultural program in Mexico since it started in 1943. After the meetings in Hamburg, he will go to India for Rockefeller Foundation work there.

Stakman joined the University of Minnesota staff in 1909 and was head of the plant pathology department from 1940 until he retired.

Particularly noted for his work in controlling grain rust diseases, Stakman made an important early discovery showing that within a variety of species of the stem rust fungus, there are races or strains that look alike but behave differently on different varieties of cereal or grass crops.

He helped agronomists, cereal chemists and other plant pathologist develop new varieties of wheat and other grains that have meant millions of dollars to American farmers.

Stakman is still working with the U. S. Department of Agriculture on stem rust research studies that were started in 1914. He is also a consultant for the U. S. Atomic Energy Commission. He holds 5 honorary degrees--four from American institutions and one from Germany.

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