

News Bureau  
University of Minnesota  
Institute of Agriculture  
St. Paul 1 Minnesota  
January 3 1955

#### 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:

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#### SAFETY

##### Safe New Year

A New Year's resolution that every family can profit by is observing home safety rules during the new year.

Keeping up to date on safety information is especially important for homemakers these days when there are more young children and more elderly people in our population, and when technology has brought some new hazards within their range.

The old rule about keeping all medicines on a high shelf--out of sight and reach of children--still holds good. But other items to keep out of their reach are: Cleaning powders or liquids, insecticides for the garden, lighter fluids, and painting and finishing materials.

The National Safety Council has warned of increasing accidents from power tools. The do-it-yourself trend apparently needs to be accompanied by do-it-yourself-safety information.

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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.

JANUARY EGG MONTHUse Eggs Often

The bounty of eggs available in January gives homemakers a chance to use many more of them. Eggs are popular at all three meals - and they're the makings of many a dessert.

They're a natural for January breakfasts - providing a hearty, healthy wake-up food to start the day right. Serve them soft or hard cooked, fried, poached, baked, broiled or scrambled.

Remember, too, that now, while eggs are plentiful and reasonably priced, using more of them in your recipes will put more food value into every meal. They make foods more nutritious and add color and flavor to many dishes. What's more, you'll rate as a better cook - since many egg dishes are smoother and richer when made with eggs.

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Low Temperature for Eggs

If you want to be successful in egg cookery, remember this rule: Cook eggs slowly, with low to moderate, even heat. That rule applies whether you're cooking eggs in water, in the fry pan or oven. Like all protein foods, eggs cooked at too high heat get tough and leathery.

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Clean, Covered and Cool

Like the producer, consumers, too, have an important role to play in maintaining high egg quality. The rules are simple: Keep eggs clean, covered and cool.

Eggs with clean shells keep best. But don't wash eggs until just before you use them. When eggs are first laid, the shells have a film known as "bloom" which seals the pores and helps keep out bacteria and odors. Washing eggs removes this protective film.

Keep eggs in your refrigerator, preferably in a covered container, away from strong-smelling foods. Without a cover, eggs lose moisture faster and are more likely to absorb odors. If you try to store eggs at room temperature, they may lose as much quality in three days as those kept two weeks in a good refrigerator.

HOME MANAGEMENTRemoving Candle Wax from Linens

After the holiday festivities, you may find that candles have dripped wax on your good table linen. Here are some suggestions on how to remove those stains.

Scrape away as much of the wax as possible with a dull knife. Then place the stained part between clean white blotters or paper towels and press with a hot iron, changing the blotters as they absorb the wax.

Sponge the spot with carbon tetrachloride or other grease solvent. If the color stain remains, sponge with a solution of 1 cup denatured alcohol and 2 cups water.

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Nylon Sheets Now on Market

Nylon - so popular for dresses, lingerie and hosiery - is finding its way into sheets. Both woven and tricot nylon sheets are now on the market, in white as well as in color.

Durability of these sheets is perhaps their outstanding characteristic. According to tests, they will outwear several cotton sheets. They are easy to launder since they are quick drying and require no ironing. Prices, of course, are still in the luxury bracket.

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Quality in Bath Towels

If you plan to take advantage of white sales this month to add some bath towels to your linen closet, be sure you're getting a good buy.

To judge quality, hold the terry towel to the light to check firmness and evenness of weave. Long, even loops make towels more absorbent than short ones. The selvage should be flat, firm and even. Hems should be well finished.

FOOD AND NUTRITIONKeeping Nuts Fresh

Because nuts are a favorite Christmas gift, homemakers often ask how to keep the fine flavor crispness and other fresh qualities. Here are some tips resulting from research on storage:

Nuts in the shell keep better than shelled nuts, and unsalted nuts keep better than salted. All nuts keep better at a cold temperature than in a warm place. Shelled nuts keep well for a year in tight containers in home freezers. A small supply of nuts keeps better in the refrigerator than out on a warm shelf in the kitchen. Nuts in vacuum-packed containers keep longer than those exposed to air. Tight vaporproof containers protect nuts from absorbing off-flavors and moisture (which makes them limp, tough or even moldy) and safe from insects.

Filberts, almonds and peanuts are better keepers than pecans and walnuts, tests have shown. Cold keeping in tight containers is very important for shelled pecans and walnuts. Exposed to warmth and air they are especially subject to rancidity.

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Lunch Box Menus Need Variety

Whether your child carries his lunch to school or eats it at home, it's important that he get the necessary nutrients. The lunch should furnish about one third of his daily needs.

The mainstay of a lunch box is generally sandwiches, but fried chicken is a nice change from the sandwich routine. The filler for the sandwich should be high in protein, and accompanying the sandwich should be a vegetable or fruit of some sort, either raw or cooked.

Find time to include surprises in the child's lunch box. Cakes and cookies, as well as dates or nuts, will add interest. Milk, either as the beverage, or in soups or desserts, should be included in every meal.

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Making Soft Cheese at Home

Have you thought of making cheese at home? Of course only the soft cheeses - those that don't need curing - can be made in the average Minnesota home with any success. These include cottage cheese, Neufchatel and cream cheese. For the many homemakers who have asked about making cheese at home, a new Agricultural Extension Service publication gives the answers. It was written by W. B. Combs, professor of dairy husbandry, and Ina Rowe, extension nutritionist at the University of Minnesota. You can get a copy of Extension Folder 139, "Making Soft Cheese at Home" from the county extension office.

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To all counties

For use during week of  
January 10 or after

FILLERS for Your Column and Other Uses....

Calves Need Hay -- The best hay you have should go to the calves. That's the opinion of Harold R. Searles, Extension dairy specialist at the University of Minnesota. He points out that plenty of good hay not only grows better calves but saves grain and reduces feed costs. With good hay, no special concentrates are needed after the calf is six months old. Searles recommends a simple grain ration such as the milk herd gets, but not over four pounds grain per day per calf.

\* \* \* \* \*

Wintering Beef Cows -- Beef cows can be wintered on just about any type of roughage. You probably have alfalfa or sweet clover hay, timothy and clover mixed hay, straw, corn fodder, corn silage or hay crop silage. Well, any one of these will do the feeding job if half the ration is half legume, the other half non-legume. However, old cows or cows nursing calves through the winter may need a little grain in addition to roughage. So says A. L. Harvey, professor of animal husbandry at the University. He's been directing the beef feeding experiments at the Rosemount Agricultural Experiment Station just south of the Twin Cities.

\* \* \* \* \*

Treating Pig Anemia -- Anemia is common in baby pigs, especially when they get nothing but their mother's milk and are kept on cement or wooden floors. Milk is normally low in iron and copper, necessary for hemoglobin-making in the blood. If farrowed on pasture, baby pigs usually will eat enough soil to get their mineral needs. Prevent anemia by putting clean, black sod in the pen each day after farrowing and until they begin eating a good, fortified creep feed. You can also give an iron tablet the second or third day after farrowing and another each week until baby pigs start eating. Another way: swabbing Betsy's udder with copperas solution each day for two weeks after farrowing. This tip comes from H. G. Zavoral, Extension Livestock Specialist at the University of Minnesota.

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Less Oats in Program -- Many farmers could profitably plant less oats. It takes 100 bushels of oats to give as much feed nutrient as 50 bushels of corn or 2 1/4 tons of good legume hay. This management suggestion comes from S. B. Cleland, Extension farm management specialist at the University of Minnesota.

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FOR RELEASE:  
THURSDAY, JAN. 5  
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#### FOUR YOUTHS NAMED AS IFYE DELEGATES

Four Minnesota youths were named this week as "grass roots ambassadors" to foreign countries in 1956 under the International Farm Youth Exchange program, according to Stanley Meinen, district 4-H club leader at the University of Minnesota.

They are Kathryn Stinar, 21, Lakefield; Barbara Ness, 21, Byron; Harris Byers, 21, Westbrook; and Erland Carlson, 20, McIntosh.

Announcement was made earlier of two other young people selected as International Farm Youth exchangees for 1956 - Nancy Meyer, 20, Caledonia, to go to England and Wales, and Richard Angus, 24, Farmincton, to Italy.

According to tentative assignments, Miss Stinar will go to Yugoslavia, Miss Ness to Finland, Byers to Panama and Carlson to El Salvador. Yugoslavia, El Salvador and Panama will be participating in the IFYE program for the first time. The young people will work and live on farms for four to six months in the country to which they are assigned.

All four of the newly appointed IFYEs have been active in 4-H club work for nine years or more and have won both county and state 4-H awards.

Now a senior in home economics at the University of Minnesota, Miss Stinar was both a state and a national 4-H clothing winner in 1953. She holds the Jackson county key award.

Miss Ness is studying home economics at Stout Institute, Menomonie, Wisconsin, where she is active in the local United Nations association.

Byers is vice president of the Minnesota State 4-H Federation. He took part in the Minnesota-Mississippi 4-H exchange program and in 1953 won a trip to National 4-H Club Congress as state meat animal champion. He is at home on the farm.

Carlson is a junior in agricultural education at the University of Minnesota. A 4-H key award winner, he has been active as a 4-H junior leader.

The International Farm Youth Exchange program is a two-way exchange conducted by the National 4-H Club Foundation in cooperation with the Agricultural Extension Service. In Minnesota it is financed mainly by funds from 4-H clubs, 4-H leaders' councils, Rural Youth groups, Land O'Lakes and other interested groups. B-779-jbn

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U. AGRONOMIST  
GIVES LEGUME  
SEED OUTLOOK

Grass and legume seed will be more expensive this year than last. But improved seeding programs could keep costs as low as in 1953, says County Agent \_\_\_\_\_.

Legume seed is not as plentiful as last year, according to Rodney A. Briggs, Extension agronomist at the University of Minnesota. Higher prices are due to low foreign production and a short clover crop. The 1954 red clover crop is the smallest in 12 years. Alsike clover production is the smallest on record.

Here is the 1955 outlook:

Alfalfa -- United States production is up 10 per cent to over 150 million pounds of clean seed -- still 30 million pounds lower than the record 1952 crop, but enough should be available. Minnesota ranks far down as an alfalfa producing state this year, with only one million pounds of clean seed.

Red Clover -- There is not as much as we want. The 12-year record low for the U. S. is only 58,500,000 pounds of clean seed. And we need 90 million. Carry-over from 1953 pushes the total to 92 million pounds -- just enough.

Alsike Clover -- Supply of alsike seed more nearly equals probable use. In 1954 we expect to use 14,347,000 pounds and will have 16 million pounds. Even though national production is lowest ever, Minnesota is the only one of eight producing states with a larger crop than last year.

Brome Grass -- Production is the largest in four years and about 37 per cent above the 10 year average. Recommended Southern brome will be about two cents per pound higher than Canadian brome. Briggs advises using Southern brome seed.

The increased cost of a mixture of six pounds certified Ranger alfalfa and eight pounds of brome grass per acre would be \$1.21 per acre higher than last year. Using improved seeding techniques and reducing this seeding to five pounds alfalfa and six pounds brome per acre would bring the cost per acre to only 10¢ more than last year's cost.

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ATT: HOME AGENTS  
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DURABILITY AND  
SHRINKAGE VARY  
IN CURTAINS

The quality of the material and the problems of washing and shrinkage must be considered when buying marquisette curtains, says Home Agent \_\_\_\_\_.

She passes along some information from Esther Knight, assistant professor of home economics at the University of Minnesota, which should help homemakers who are in the market for new curtains.

Today a wide assortment of marquisette curtains is available, in cotton, rayon, Dacron, nylon, glass fiber and Orlon. When buying curtains, the consumer should choose the fabric which best suits her requirements at a price she can afford to pay, Miss Knight suggests. Here are some questions the consumer should ask: Will the curtains improve the looks of the room and regulate light, will they retain their general appearance, size and shape under use and care, will they wash easily and resist shrinking?

In tests made on various fabrics, nylon marquisette shrank 2.5 per cent or less, cotton marquisette shrank 3 per cent or more and rayon 5 per cent or more. On an 80-inch panel 3 per cent shrinkage would mean a loss of 2.4 inches and 5 per cent would mean shrinkage of 4 inches.

Cotton and rayon marquisettes with permanent finishes shrank less in the tests than those with only a starch finish. Curtains with permanent finishes were generally easier to put on stretchers than the regular starched curtains.

Some of the fibers used in marquisette curtains are more durable than others when exposed to light and heat, and they withstand the effects of gases, smoke and soot. Glass fiber is exceptionally resistant to these conditions. Dacron and Orlon are also outstanding, and all three are superior to nylon in this respect.

Nylon curtains, however, are very popular because they are lower in price than most of the other materials and are durable when they are not exposed to direct sunlight, intense heat, industrial fumes and soot for long periods. Consequently, nylon curtains will last longer if hung in windows away from direct sunlight and away from hot radiators and other sources of heat.



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#### REFRESHER COURSE IN HOMEMAKING FOR RURAL, CITY WOMEN

A varied program in homemaking, art and gardening is expected to bring hundreds of rural and city women in Minnesota to the University of Minnesota's annual Farm and Home Week on the St. Paul campus January 11-14.

For more than 50 years Farm and Home Week has been a popular "back to school" event for women from all parts of the state, who regard it as an opportunity for a refresher course in nearly every area of homemaking.

The first session of the homemakers' program will be held at 1:30 Tuesday afternoon (Jan. 11) in Room 227 of the home economics building. Nutrition for children and the aged, fashions for the mature woman, laundry techniques, home furnishing fabrics, selecting and refinishing furniture are some of the topics to be covered in the homemakers' program at morning and afternoon sessions during the week.

A tea for Farm and Home Week women guests will be served by the Agricultural Faculty Women's club in the Fireplace room on Wednesday afternoon (Jan. 12). Following the tea, guests will tour the home economics building and view special exhibits on display.

Making the farm home more livable will be the subject of morning and afternoon sessions on Thursday (Jan. 13) in Room 107 of the agricultural engineering building. Norman Nagle, Minneapolis architect, will be featured speaker. Home economists and agricultural engineers will discuss planning bathrooms and step-saving kitchens, wiring for new appliances, providing for a safe water supply and a dependable sewage disposal system.

The popular session on frozen foods has been set for Wednesday afternoon (Jan. 12) at 1:45 in Peters hall auditorium.

Of interest to many women will be the classes in horticulture which will consider landscaping problems, planning the home vegetable garden and care of home grounds. A complete morning's program on Wednesday (Jan. 12) will be devoted to growing plants in the home.

For the fourth year the Rural Art Show will be a highlight of Farm and Home Week. Works of Minnesota's rural artists will be on exhibit in the Agriculture Library on the St. Paul campus. Gallery tours will be conducted during the week, and visiting artists will give demonstrations on use of oils and water colors.

All Farm and Home Week programs are open to the public free of charge.

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Immediate Release

#### BOY SELECTED TO RECEIVE FIRST FROZEN FOOD PRIZE

A boy will receive the first \$100 scholarship presented by the Minnesota Frozen Food Locker association to a 4-H member for outstanding work in frozen foods.

Thomas Leuthner, 16, St. Bonifacius, has been awarded the scholarship. He will also be given recognition at the annual meeting of the association in April.

Leuthner, a junior in the Waconia high school, was the state winner in the 4-H frozen food contest last year. He has been a member of the Boni 4-H club for seven years and has been working on food preservation for five years. He received championship on his canned foods exhibit at the State Fair in 1951, and in 1953 was awarded the state reserve championship in the canned vegetable exhibit.

Leuthner keeps the 20-foot freezer in his home well stocked with the foods he prepares. He produces in his 4-H garden most of the fruits and vegetables he freezes during the summer. Last year he froze 58 quarts and 275 pints of fruits and vegetables and 763 pounds of meat.

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#### SPRAYERS' SHORT COURSE SCHEDULED

A short course in aircraft and ground spraying for weed and insect control will be held on the University of Minnesota's St. Paul campus, January 24-25.

Announcement comes from J. O. Christianson, director of short courses.

T. L. Aamodt, state entomologist, is course chairman.

Monday's program opens with a discussion of Minnesota 1954 aerial and ground spraying statistics by J. R. Sandve of the state entomologist's staff. Sig Bjerken, state weed control supervisor, will speak on weed control laws and others will discuss how proper storage improves insecticides' and herbicides' efficiency.

Afternoon program includes talks on calibration and care of sprayers, advantages of ground spraying equipment in insect control, residential spraying--including insect control and lawn weed control--and laws about aerial and ground spraying.

Tuesday morning, R. S. Dunham, University professor of agronomy, will speak on 1955 weed control recommendations; J. W. Butcher, assistant state entomologist, will speak on 1954 insect surveys and 1955 predictions; and L. K. Cutkomp, associate professor of entomology, will speak on 1955 insect control recommendations.

Tuesday afternoon's program includes talks on brush control with herbicides, aircraft brush control, brush control in forest management and Joliar fertilizer application. J. W. Butcher will lead a panel on the 1954 control programs. The panel will include members of the state entomologist's staff, the chemical industry, and two county agents--Bill Olson, Breckinridge, Wilkin county, and Nick Weyrens, Fergus Falls, West Otter Tail county--who were active in stemming the 1954 armyworm attack in northwestern Minnesota.

Complete information on the course is available from the Short Course Office, Institute of Agriculture, University of Minnesota, St. Paul 1.

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By Harry R; Johnson, Extension Information  
Specialist, U. of M.

Information Service  
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SPECIAL TO THE EXTENSION SERVICE REVIEW  
(WITH PICTURE)

(OF NICK WEYRENS, JOHN MULVEHILL, WEST OTTER TAIL CO.,  
FERGUS FALLS)

MINNESOTA'S SOIL CONSERVATION AGENTS ARE EDUCATORS-EXPEDITERS

Four years ago, the Minnesota legislature voted to give the state's county agents a hand -- an assistant agent whose duties would be<sup>t</sup> expedite soil conservation work.

They voted funds to pay the salaries of nine soil conservation agents, each placed in a county seat located in an organized soil conservation district. The soil conservation agent is "officed" with the county agent as part of his staff. *There are now 11 such agents*

The program grew out of action by the Minnesota Association of Soil Conservation District Supervisors. They felt that some work was needed to speed up on-the-farm adoption of conservation practices in the state and believed it could best be done by an educational program. Strength for this belief came from the recognition that, in the end, only the farmer decides when and if a soil conservation or better land use practice goes on his farm.

Thus, the soil conservation agent was created to carry out an educational program developed in cooperation with the soil conservation district supervisors and the county Extension committee. He draws upon technical and research information from the University Extension staff in St. Paul but his program is geared to county and area needs and he develops it in cooperation with local groups.

Here, for example, is how one soil conservation agent operates. ~~J. E.~~ E. Ellis, agent in Buffalo, Wright County, some 50 miles west of Minneapolis-St. Paul, started out on a new plan a few months ago, shortly after he went on the job. He planned to bring together a group of farmers for two or three meetings this winter and give them above-average training and facts on soils, farm management and other conservation-related topics.

With the help of the local ASC and SCS people, three farmers from each township were chosen and invited to the meeting. Most of these invited attended the first meeting. At the end of the session, Ellis asked the group if they were interested in playing host to small group meetings for their neighbors. Fifteen such meetings are now taking place and the SCS technician and Ellis are attending each.

Washington County's 1953-1954 program, headed by Soil Conservation Agent Clifton Halsey of Stillwater, emphasized grassed waterways because Halsey found they were needed on many area farms.

Grassed waterways were a main topic at 18 winter neighborhood group discussions where Halsey and SCS technicians used colored slides and diagrams to explain how a waterway works and how to plant and maintain one.

Two grassed waterway establishment demonstrations were held by neighborhood farmers with guidance from Halsey and SCS workers. At the Washington County Fair Soil conservation booth, gully erosion and soil loss were demonstrated with soil troughs, grass and artificial rain as an automatic slide projector portrayed good and bad practices, their reward or penalty.

This program was designed to stimulate interest among organized groups and then bring them the conservation story--and later, of course, help in making changes. The whole range of educational tools -- meetings, radio programs, demonstrations, films, field days, newspaper articles -- carried the grassed waterway message. This year, Halsey is featuring cross-slope farming the same way he "hit" grassed waterways in 1953-1954. All this is in addition to his program of soil-testing, tree-planting, fertilizer education and overall ~~soil~~ improvement ~~in~~ management of farm lands.

Halsey says -- and his experience is echoed by other soil conservation agents -- that much educational activity has to take place before farmers began to use a new soil conservation district. Shortly after it wins acceptance, however, there are for a brief time more requests than SCS technicians can handle.

"As farm plans are made, however, some adopt new practices readily, while others looked at the plans but didn't understand or like them and filed them in the spare room bureau upstairs," Halsey writes. "Now, the cream of the crop has been so <sup>LD</sup> on conservation, but conservation is still <sup>NOT</sup> on the land -- or even a fair share of it." Halsey and the others are in the big, long push to get it there.

In their work-a-day programs, the soil conservation agents coordinate their operations with the SCS technicians' and help them occasionally when field work is heavy. Requests from farmers for technical assistance are relayed to the technicians, who, in turn, frequently help the conservation agent with large-scale outdoor educational events or school programs.

Thus, a division of labor develops in which the technician can devote his full energies to technical work and the conservation agent can develop an educational program.

~~Director of Extension Skuli Rutford says the soil conservation district supervisors are pleased with the programs progress and he has received several complimentary letters from rural community leaders.~~

The link between the farmer and the University was strengthened recently by completion of a training program in which all county agents--including the soils agents and assistants--were equipped to make <sup>fertilizer</sup> final farm recommendations from the University's soil test.

At \$1 a sample, the University lab tests soil for nitrogen, potash and phosphate needs, returns the evaluation to the soil conservation agent (or county agent). He takes a careful look at the farm's needs with its owner and works with him in setting up a realistic cropping and fertilizing program.

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FILLERS for Your Column and Other Uses....

Remain Alive in '55 -- Did you know that accidents are the Number One cause of death of people between one and 35 years of age? That's what Glenn Prickett, the University's Extension safety specialist tells us. Accidents take a toll of about 1,750 lives and injure thousands of other people every year -- in Minnesota, alone. Here's Glenn's tips to "remain alive in '55": Check homes and farms for accident and fire dangers--then, eliminate the hazards. And use recommended safety shields on farm equipment. And slow down -- work, play, drive safely.

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Lice Are Profit-Cutters -- It's always a good idea to check your animals often for lice. Lice can get quite a start on their profit-cutting spree before they are noticed, says Harold Searles, Extension dairy specialist at the University. He suggests you look on the neck, especially, parting the hair and examining the skin carefully. If you find lice, go after them with a good lice powder twice a week or more until they're out of the picture. They can greatly reduce milk production and slow down calf growth.

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Machinery Buying Tip -- A fellow sometimes grouses about the high cost of machinery. Still, however, you can buy almost any piece of equipment and even at present prices, it will save you labor. Research has found that in the years 1935 to 1939, the wages you had to pay a hired man for 31 months--that's over 2½ years--would buy a two-plow tractor. Now, however, it only takes about 1½ months--a little over a year--of hired man wages to buy a new, similar-type tractor. This tip comes from Don Bates, Extension agricultural engineer at the University of Minnesota.

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#### OLMSTED COUNTY GIRL WINS JERSEY CALF AWARD

For the third consecutive year a girl has won the purebred Jersey calf award for the outstanding 4-H record in the state in raising Jersey cattle.

LaDonna Kuhlmann, 18, of Eyota, a member of the Eyota Wonder Workers 4-H club, is this year's winner of the award, given by the Minnesota Jersey Cattle Club.

LaDonna has been active in 4-H work for the past 10 years, and started her work with dairy cattle by caring for a calf from her father's dairy herd. Since then she has owned several calves in partnership with her parents, and has exhibited her calves at both the Olmsted county and State fairs. In 1948 she won a reserve championship at the Minnesota State Fair. Twice she has been county champion 4-H dairy showman.

Besides her work with dairy cattle, LaDonna has worked on poultry projects for 10 years, winning four poultry awards and five grand championships on her poultry exhibits at the Olmsted county fair. She makes her own clothes and takes part in safety programs in her club and in her farm home.

LaDonna is a freshman at Cottey college, Nevada, Missouri.

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#### U. ENTOMOLOGISTS PRESCRIBE FOR SWEETCLOVER WEEVIL CONTROL

Any one of several insecticides, applied in the right quantity, will check the sweetclover weevil, a pest which raises havoc with northern Minnesota sweetclover.

Research defining the correct amounts of insecticide was outlined this afternoon (Tuesday, Jan. 11) at the University of Minnesota's 53rd annual Farm and Home Week by B. Austin Haws, an entomology researcher.

Haws said 1/2 pound heptachlor per acre--or 1/2 pound dieldrin, 3/4 pound aldrin, 2 pounds chlordane or toxaphene, or 3 pounds DDT--are effective if applied in early spring when new sweetclover seedlings first emerge and are in the two-leaf stage.

A second spraying may be necessary in midsummer to protect seedlings from a new generation of weevils which emerge from the soil then. Haws says there is "some evidence" that this new brood of weevils can be controlled by applying insecticides to borders of fields from which the weevils are emerging or the borders of newly-seeded fields.

Sweetclover weevils are grey or brownish-grey insects about 1/4 inch long. They were first reported in North America in 1924, but now are found in most parts of Minnesota where sweetclover is grown. Adult weevils usually overwinter in trash, or surface soil of established sweetclover stands.

The weevil wreaks its greatest damage in destroying new seedlings early in spring--both overwintering adult weevils that come out in the spring or new broods that appear in the summer are a threat to the crop.

Where both sweetclover and alfalfa are available, the weevils seem to prefer clover. However, tests in 1954 show that alfalfa hay yields along the border of a field invaded by weevils were reduced about 44 per cent--almost half--where insecticides were not applied. Weevils also have destroyed new alfalfa seedlings under some conditions.

University of Minnesota Extension Folder 180 contains a description and pictures of the weevil, its life cycle, how it injures plants and how it can best be controlled. Folder 180 is available free at county agents' offices or from the Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul 1. B295hrj

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#### WATCH FOR DANGER SIGNS, DOCTOR URGES

As people grow older, they need to be on the watch for hard-to-detect danger signs of bodily illness, a noted doctor told a University of Minnesota Farm and Home Week audience today (Tuesday, Jan. 11). How quickly they detect such obscure symptoms often means the difference between "catching it in time to do something about it" -- and not.

So said Dr. Walter C. Alvarez, well-known writer on health problems, at the noon convocation today at the 53rd annual Farm and Home Week on the St. Paul campus.

Dr. Alvarez, a former chief of medicine at the Mayo Clinic, suggested a yearly medical examination as the only way beginning cancers can be found and treated before they become too large or widespread. Often, he warned, a cancer does not give clear symptoms until it is too large to remove.

He said the reason few removals of gastric cancers are successful is that patients wait, on the average, 11 months after they first notice symptoms before going to a doctor. And in 11 months a cancer can often spread throughout the body.

However, even with this "terrible handicap," about a third of the patients in whose case the stomach and tumor can be removed recover.

Speaking on high blood pressure, Dr. Alvarez said that a fat patient can reduce and thus ease the blood pressure problem. A person smoking two packs of cigarettes a day can cut down or stop smoking entirely and this will help his health.

Overwork, overfatigue and other conditions which result in a person having to "blow his top" do not, of course, improve a high blood pressure condition, he said. His advice: hold your temper and develop patience with things and people--and travel at an easier pace.

Also, Dr. Alvarez suggested, if a person is suffering from mental illness or "melancholic depression," he and his family should recognize that fact and understand that surgery may not help. Yearly checkups are most needed after 40, he said. The degenerative and chronic diseases and cancers tend to begin after 40. B-296-hrj

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 10, 1955

Immediate Release

#### TWO SCHOLARSHIP AWARDS ANNOUNCED

Donald J. Benning, Browerville, son of Mr. and Mrs. John Benning, has been awarded an Agricultural Services, Inc., Scholarship of \$100 for the current school year. Benning is a 1954 graduate of Browerville high school and a freshman in agriculture with an interest in dairy technology.

The scholarship fund was established last summer by D. W. Jimmerson and Oscar E. Thorbeck of Agricultural Services, Inc., Minneapolis. Jimmerson is a 1942 graduate of the University's College of Agriculture and Thornbeck is a 1941 graduate.

Both men received Sears-Roebuck Scholarships in 1937 when they entered college.

Chester L. Heschke, Hastings, son of Mr. and Mrs. Owen Heschke, was awarded a \$150 Sears Roebuck Foundation Scholarship for the current year. Heschke is a 1954 graduate of Hastings high school

Announcement of the scholarship awards comes from A. A. Dowell, director of resident instruction on the St. Paul campus.

B-297-hr j

News Bureau  
University of Minnesota  
Institute of Agriculture  
St. Paul 1 Minnesota  
January 10 1955

To all counties

ATT: HOME AGENTS  
For publication week of  
January 17 or after

GOOD CARE  
EXTENDS LIFE  
OF CURTAINS

The care given marquisette curtains will determine to a large extent how long they will last and look well, says Home Agent \_\_\_\_\_.

She passes along some suggestions from Esther Knight, assistant professor of home economics at the University of Minnesota, which should help solve the problems of caring for new fibers.

Generally speaking, nylon, Orlon and Dacron can be washed quickly in warm water with a mild soap and rinsed well. Excess water can be absorbed by rolling curtains in a terry towel. They should be removed quickly and hung over a smooth, straight line to drip almost dry. Then they can be ironed with a warm iron.

If the water is too hot, or if curtains are spun dry, wrinkles are likely to be set, and the curtains will need a thorough job of ironing. Glass fabric can be laundered and rehung in an even shorter time than the other fabrics. They must be washed by hand, however, and gently squeezed, since rubbing can injure the fabric. After rolling in a terry towel, the damp glass fabric curtains may be rehung on the window rods.

Winter weather can do a great deal of damage to curtains. Damage due to acid fumes present in smoky air is most likely to occur during the winter months. Miss Knight offers these suggestions for winter care of curtains:

- (1) If the design of the curtains permits, reverse top and bottom occasionally.
- (2) Change the position of the curtains from one window to another to distribute exposure to the sunlight.
- (3) Keep the curtains clean. Wash or clean them frequently to preserve them.

Only cotton and rayon marquisette curtains will need stretching after they are washed. Especial care must be taken in stretching rayon curtains, since rayon is one of the weakest fibers when wet. Curtain stretchers are the most satisfactory way of shaping curtains, but care must be taken not to over stretch. On the other hand, too little stretching will cause curtains to sag.

News Bureau  
University of Minnesota  
Institute of Agriculture  
St. Paul 1 Minnesota  
January 10 1955

To all counties  
For use week of  
January 17 or after

PREVENT BABY  
PIG ANEMIA IN  
SEVERAL WAYS

Anemia is a common--and easy to avoid--ailment of baby pigs. It is especially frequent when the piglets get only their mother's milk and when they're raised on a cement or wooden floor.

County Agent \_\_\_\_\_ gives a few steps, relayed to him by Extension Livestock Specialist H. G. Zavoral at the University of Minnesota, for preventing this profit-loser.

First, Zavoral points out that sows' milk is low in iron and copper--both necessary for hemoglobin formation in the blood. If pigs are farrowed on pasture or on ground they will usually eat enough good, black dirt to satisfy their mineral needs. And, of course, when pigs begin eating grain, there is less danger from anemia--especially if the pigs were free of it up until going on grain.

Zavoral says feeding the sow minerals will not prevent anemia because her milk is ordinarily low in iron and not much can be done about it.

You can easily tell an anemic pig--he is pale, dumpy and has a wrinkled skin and very rough hair--often he loses his shiny coat of hair. Many piglets die or are permanently damaged because of anemia. And the remedy is prevention--it's easier than cure.

Here's how: put clean, black sod in the pen each day after pigs are born and until they start eating a good, fortified creep. You may also want to give each piglet an iron tablet the second or third day after birth and one tablet each week until they begin eating.

Another good preventer: dissolve 1/2 pound of copperas (ferrous sulphate) in a quart of water and swab the sow's udder with the solution every day for two weeks after farrowing.

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University of Minnesota  
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St. Paul 1 Minnesota  
January 10 1955

To all counties  
ATT: HOME AGENTS  
For publication week of  
January 17

SOME CHEESES  
FREEZE WELL.

Many cheeses which do not keep for any length of time in the refrigerator can be stored successfully in the home freezer.

That's the answer to a question many \_\_\_\_\_ county homemakers have been asking, particularly those who received gift boxes of assorted cheeses for the holidays. The answers to many other questions on freezing cheese are found in research work now being conducted at the University of Minnesota.

For the past year and a half, Professor W. B. Combs and Dr. Howard Morris of the University's dairy department have been experimenting with the freezing of cheese, reports Home Agent \_\_\_\_\_. Here are some of their findings, to date:

To keep successfully in the home freezer, cheese must be frozen in small amounts - preferably in half-pound lots or in the amount the family will eat at one serving. Pieces should never be larger than a pound in size. When pieces larger than that are frozen, large ice crystals form and cause the structure of the cheese to break so it becomes mealy and crumbly. Fast freezing is also desirable, hence the necessity of freezing cheese in small-size pieces.

Cut cheese should be wrapped in aluminum freezer foil. Press the foil tightly against the cheese to eliminate air pockets. Small cheeses can be left in their original packages, but it may be well to overwrap them with aluminum foil.

These varieties of cheese will keep well for six months or longer if the freezer is at 0°F.: Cheddar, Brick, Port du Salut, Swiss, Provoloni, Club, Liederkranz, Camembert, Parmesan and Romano.

Cream cheese does not freeze successfully, since it becomes watery and mealy after freezing, according to Professor Combs and Dr. Morris. Blue cheese becomes crumbly and mealy after it is thawed. However, if it is to be used in salads, cooking or to make a potato chip dip it can be frozen satisfactorily.

Cheese should be thawed in the refrigerator in the wrapper. After it is thawed, remove it from the refrigerator about an hour before serving. Cheese is at its best when it is at room temperature.

News Bureau  
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St. Paul 1 Minnesota  
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To all counties  
For use week of  
January 17 or after

U. SPECIALIST  
GIVES TIPS ON  
HORMONE FEEDING

With the new hormone substance stilbestrol so much in the news lately, County Agent \_\_\_\_\_ answers some questions about it with the help of W. E. Morris, University of Minnesota Extension Livestock Specialist.

As you know by now, Iowa State College tests--feeding corn to fattening steers and using a stilbestrol supplement--showed daily gain increases of up to 3/4 a pound per head. The substance lowered costs of gain two to four cents a pound and profit per steer was boosted as much as \$22.

Heifers did well on the same supplement, making gains of 2.4 pounds a day with 10 per cent less cost of gain. They produced choice beef at 19.6 cents per pound. In the heifer group, profits per head were boosted \$7.18.

Morris reports that on a high roughage feeding, an extra 75 days full feeding of corn was found necessary to make choice beef. Good results can be obtained with grass or corn stalk silage, when a stilbestrol supplement is added.

Grade yield and finish are not changed by feeding stilbestrol. And carcasses of stilbestrol-fed animals are about the same--no better, no poorer--than those of cattle fed the same ration without stilbestrol.

Key to good results is proper mixing, Morris says. To safeguard the process, Iowa State College patented the method to control the amounts that could be used in a feed. Feed firms now buy the premix to mix in their feed from a medical firm.

Morris has one important warning, also found on the feed bag of a ration containing stilbestrol: don't take a chance feeding it to breeding cattle, sheep or swine. It was developed for use in stimulating growth of cattle being grown for slaughter. Hormones are powerful substances. Wrongly used, they can have damaging side-effects.

FILE

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota.  
January 11, 1954

SPECIAL TO WILCOX  
County Agent Introduction

Harold Rosendahl, Norman county agent at Ada, gets more than just a plaque from Mrs. Gwen H. Haws, agricultural bulletin editor at the University's Institute of Agriculture. That flashing smile means she's proud of Rosendahl's placing as outstanding circular writer in a state press, radio, visual aids and circular letter contest held in early December at the annual Extension Agents conference. He competed against county, home, 4-H club and soil conservation agents from Minnesota's 87 counties who entered in the contest.

Recognition for Rosendahl's outstanding work began when he was a 4-H club and FFA member in Marshall county. He attended the University of Minnesota, graduating in 1949. He served as veterans' agricultural instructor at Faribault. He has been Norman county agent since 1950.



University Farm News  
Institute of Agriculture  
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St. Paul 1, Minnesota  
January 6, 1955

Immediate Release

#### EGGS, CITRUS FRUITS PLENTIFUL

Eggs and citrus fruits share the honors as top features on the U. S. Department of Agriculture's list of plentiful foods for January.

January is designated as "egg month" because of the unusually plentiful supplies of this food expected at prices favorable to family food shoppers. There will be more eggs this month than in any previous January, since laying flocks are larger and the rate of lay is higher. At this season the best buys are the large-size eggs, according to Mrs. Eleanor Loomis, extension consumer marketing agent at the University of Minnesota.

Oranges, grapefruit and tangerines, both fresh and processed, will be in generous supply this month. Production of early and midseason oranges is 40 per cent above average. Tangerines, sometimes called "kid-glove oranges" because the peel strips off so easily, are also in heavy supply. Though the grapefruit crop is smaller than last year, markets will offer more grapefruit because less is being processed.

Markets will have plenty of turkeys in January, especially those weighing over 20 pounds. There will also be heavy supplies of pork and high-grade beef, stewing hens, frozen haddock and halibut, fresh and frozen shrimp and canned tuna.

Also plentiful this month are all dairy products - from butter and cheese to milk in many forms.

The largest crop of rice on record makes this food still another January plentiful. Lima beans and canned corn will be on markets in abundance, as will raisins and three kinds of nuts - English walnuts, almonds and filberts.

B-289-jbn

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 6, 1955

Immediate Release

#### SIX 4-H'ERS CHOSEN FOR NATIONAL CAMPS

Six Minnesota 4-H club members have been selected for two of the most coveted awards in 4-H work - trips to the National 4-H Club camp in Washington, D. C., and to Camp Miniwanca, Shelby, Michigan.

Chosen as delegates for the National 4-H Club camp in June in Washington, D. C., are Richard Bucher, 19, 2166 Edgerton street, St. Paul; Richard Westphal, 19, Route 6, St. Paul; Ann Busch, 19, 915 North Boone avenue, Minneapolis; and Joyce Lahti, 18, Meadowlands.

Loretta Vancura, 19, Lakefield, and Dale Ripley, 19, Winnebaqq, will receive scholarships to the American Youth Foundation Leadership Training camp at Camp Miniwanca, Shelby, Michigan, in August.

Choice of the six delegates was made on the basis of their achievements in leadership and community service and good all-round record in club work, according to Leonard Harkness, state 4-H club leader at the University of Minnesota. They were selected from among 12 candidates who were chosen in statewide competition.

Named alternate delegates were Patricia Scheibel, 20, New Ulm and Clifford Bussler, 20, Brownton.

All the award winners have been 4-H members for seven or more years, have held offices in their own clubs and as junior leaders are active in helping younger members with their project work. They have won local and county honors for their club work, as well as statewide recognition.

B- 290-jbn

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January 11, 1955

*Waaseca*  
Special to: Brown and ~~Wasson~~ Co. Ag.

#### 4-H HOLSTEIN WINNERS NAMED

Barbara Scheibel, 19, New Ulm, and Dale Blank, 20, Janesville, have been named state 4-H Holstein winners for 1954, Leonard Harkness, state 4-H club leader at the University of Minnesota, has announced.

This year's 4-H Holstein girl has been in 4-H work in Brown county for 10 years and is a member of the Cottonwood Jelly Juniors. She has completed 70 projects in her 4-H work, 27 of these in raising and showing her dairy cattle. Barbara is now in her second year at Mankato State Teachers' college.

Blank, a student at the University of Minnesota, has been in 4-H work for nine years. His special project is dairy cattle, and for the past seven years he has had the grand champion of all dairy breeds at the Waaseca county fair. In 1954 he won the grade Holstein championship on his Holstein cow at the Minnesota State Fair.

The winners in the state 4-H Holstein contest will receive special awards from the Minnesota Holstein-Friesian Breeders' association next spring for their outstanding work in raising Holstein cattle.

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Immediate Release

WINNERS OF 4-H DAIRY EFFICIENCY CONTEST NAMED

Elroy B. Flom, 17, Kenyon, and Dennis H. Johnson, 18, Farwell, have been named winners in the state 4-H dairy efficiency contest, according to Leonard Harkness, state 4-H club leader at the University of Minnesota.

The two winners will receive plaques from the National Dairy Products company, Kraft Foods company and the National Butter company, sponsors of the contest. The awards are given to outstanding dairy club members who emphasize efficient production practices including planned pastures, record keeping and balanced rations.

State blue ribbon winners, who will receive cash awards, are: Bradley Sheeks, Kimberly; John Crowell, Lake Crystal; Barbara Scheibel, New Ulm; Gerald Beneke, Hamburg; Gordon Paulson, Peterson; Chris Skaar, Hayward; Lyle Thiesse, Fairmont; Kenneth Piehl, Dassel; Allen Ecklund, Askov; Alice Reineke, Clarissa; Willard Tetzloff, Lewisville; Ralph Douglas, Waverly; Vada Sharkey, Hanley Falls.

B-298-clb

University Farm News  
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University of Minnesota  
St. Paul 1, Minnesota  
January 11, 1955

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FOR RELEASE:  
WEDNESDAY, 4 P.M., JAN. 12  
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#### HOME SAFETY, FREEZING FOOD TECHNIQUES DISCUSSED

Accidents in Minnesota wiped out the equivalent of a town of 1,774 in 1953 and injured 100,000 people, or the equivalent of the population of Duluth, Glenn Prickett, extension safety specialist at the University of Minnesota, said today.

Speaking at a special session for homemakers (Wed. afternoon), Prickett listed falls, fires, poisons, suffocation and firearms as the leading causes of home accident fatalities.

Homemakers are a vital group in carrying on safety education, he said. He commended them for helping to reduce fatal accidents in Minnesota homes from 840 in 1949 to 573 in 1953.

To eliminate the causes of home accidents, human factors, such as carelessness, haste and fatigue, must be considered as well as physical factors. Frequent inspections of homes for hazards and building in safety features will also cut down the number of accidents.

One of the keys to success in freezing vegetables is selection of varieties especially adapted for freezing, women were told at a Farm and Home Week session on frozen foods.

Some varieties freeze much better than others, according to J. D. Winter, associate professor of horticulture at the University. For that reason, gardeners would do well to select for planting the varieties which will freeze well. On the basis of tests of fruit and vegetable varieties in the University's frozen foods laboratory, the department of horticulture issues each year a list of recommended varieties for freezing.

Good quality in frozen vegetables is also dependent on speed in getting the product from garden to freezer, Winter said.

Speaking at the same session on frozen foods, Shirley Trantanella, research fellow in the University frozen foods laboratory, explained how various foods from the freezer can be combined to make a complete meal. She cautioned that all cooked and baked foods must be wrapped in moisture-vapor-proof paper if they are to retain their quality. Casserole dishes should be cooled quickly in a pan of water after they are cooked and then frozen immediately. They should not be stored in the freezer longer than a month or six weeks.

University Farm News  
Institute of Agriculture  
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St. Paul 1, Minnesota  
January 11, 1955

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FOR RELEASE:  
2:30 P.M., WEDNESDAY, JAN. 12  
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#### MINNESOTAN FINDS AUSTRALIANS SKILLED WOOL GROWERS

The care and skill of Australian wool growers in preparing superior fleeces seems far ahead of U. S. practices. This comment came this afternoon (Wednesday, Jan. 12) from Carl Nadasdy, a Minneapolis wool marketing authority who spoke before a University of Minnesota Farm and Home Week audience.

Nadasdy, general manager of the Minnesota, Dakotas and Iowa Co-op Wool Growers, returned recently from "down under." He says Australian growers begin planning their wool crop with superior breeding. They are not concerned with carcass quality or body conformation--80 per cent of Australian sheep income is from wool, only 20 per cent from lamb. U. S. sheep raisers are just the opposite--70 per cent of their income is from lamb, 30 per cent from wool.

In choosing breeding rams, the Australian producer checks grade, staple length and fiber density of the ram's fleece. After getting ewe lambs for breeding, he culls nearly a third as unsuitable for high quality wool production.

After shearing, Australians are extremely careful to remove skirts, bellies, britch and tags, placing each in separate bales. They handle the main part of the fleece separately.

Some Australian methods are at present "too drastic" and impractical for U. S. growers. But radical improvements are needed in the way our domestic clip is prepared. If we do not "move" on these necessary changes, Nadasdy says, we will lose markets to superior Australian wool.

The reason: Australian wools arrive in the U. S. ready for manufacturers. Little if any labor is required for sorting and other operations to get wool ready for scouring--the Australians take care of that on the ranch.

In production costs, we have a real battle ahead of us, Nadasdy says. Labor, supplies and other production items are far cheaper in Australia. Most important, however, is the climate. Much of Australia seldom gets freezing weather. They can thus graze sheep the year around and seldom have to feed hay or grain in winter.

When rainfall is plentiful it's almost impossible for a rancher to carry enough sheep to keep the grass down.

Nadasdy compares the Australian sheep rancher with U. S. midwest or far west ranchers--"very congenial, hospitable and outspoken."

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St. Paul 1, Minnesota  
January 11, 1955

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FOR RELEASE:  
1:30 P. M., WEDNESDAY, JAN. 12  
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ADDING FARM PEOPLE TO SOCIAL SECURITY "IMPORTANT IMPROVEMENT"

The recent extension of Old Age and Survivors' Insurance protection is probably the most important improvement made in our social security system.

This statement came at a Farm and Home Week convocation on the University of Minnesota's St. Paul campus this noon (Wednesday, Jan. 12), from Victor Christgau, director of Old Age and Survivors' Insurance in the new Federal Bureau of Health, Education and Welfare in Washington.

Now, under recent act of Congress, five and a half million farm workers are covered by Old Age and Survivors' Insurance. Included are three and a half million self-employed farm operators and two million hired workers. In Minnesota about 150,000 farm operators and 60,000 hired workers will begin earning social security credits beginning this month, Christgau said.

With extension of social security protection to farm people, Christgau's bureau, OASI, gradually will assume more and more of the load in providing financial independence to the aged, he said.

By 1960, savings to state governments resulting from the expanded federal coverage will be about \$75 million a year--by 1980, \$130 million a year. Minnesota will share in these savings. The state appropriated nearly \$12 million for old-age assistance in fiscal 1954.

(more)

Christgau described OASI as a self-supporting program financed from each worker's contributions, their employers' and the self-employed--benefits are paid as an "earned right."

To a farmer at age 65, it will mean a fixed monthly income ranging from a minimum \$30 to a maximum \$108.50. For as long as he lives, the farmer and his aged wife will be entitled to a total monthly benefit ranging from \$45 to \$162.80. If there are children in the family who are still under 18, family benefits can total as much as \$200 a month. Since an average person is estimated to live at least 13 years beyond 65, these payments can become sizable.

To a farmer in his younger or middle years with a growing family, the survivor's part of the program may be more important than the retirement features, Christgau pointed out. For example, in case the husband dies prematurely, his widow would be eligible for monthly benefits ranging from \$30 to \$81.40. A widow with children under 18 would be entitled to payments ranging from \$45 to \$200 monthly.

Even if a man leaves no wife or children upon his death, but only aged and dependent parents, they would be paid benefits in the program.

Christgau suggested farmers and farm workers who want to know more about the program write or call the District Director of Internal Revenue in St. Paul or any social security office. A booklet of full instructions will be available from such offices in a few days, he said.

B-301-hrj



University Farm News  
Institute of Agriculture  
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St. Paul 1, Minnesota  
January 12, 1955

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FOR RELEASE:  
THURSDAY P.M., JAN. 13  
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### GLASS FIBER, ORLON, DACRON DURABLE FOR CURTAINS

When buying marquisette curtains, consumers should choose the fabric which best suits their needs at a price they can afford to pay, a University of Minnesota home economist said today (Thurs. a.m.).

Esther Knight, assistant professor of home economics at the University, suggested that consumers ask these questions when buying curtains: Will the curtains improve the looks of the room and regulate light? Will they retain their general appearance, size and shape under use and care? Will they wash easily and resist shrinking?

Glass fiber is exceptionally resistant to the effects of gases, smoke and soot, and is more durable when exposed to light and heat than many of the other fibers used in marquisette curtains, Miss Knight told homemakers attending the University's Farm and Home Week on the St. Paul campus today (Thurs. a.m.). Dacron and Orlon are also outstanding in this respect and are superior to nylon in durability.

Nylon curtains, however, are very popular because they are lower in price than most of the other materials and are durable when not exposed to direct sunlight, intense heat, industrial fumes and soot for long periods. Consequently, nylon curtains will last longer if hung in windows away from direct sunlight and away from hot radiators and other sources of heat.

Damage to curtains because of acid fumes present in smoky air is most likely to occur during the winter months, Miss Knight said. She offered these suggestions for winter care of curtains:

1. If the design of the curtains permits, reverse top and bottom occasionally.
2. Change the position of curtains from one window to another to distribute exposure to the sunlight.
3. Keep the curtains clean. Wash or clean them frequently to preserve them.

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January 12, 1955

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FOR RELEASE:

1 P. M., THURSDAY, JANUARY 13

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## TWENTY MINNESOTA FARMERS ON SWINE HONOR ROLL

Twenty Minnesota farmers were named this afternoon (Thursday, Jan. 13) to the Minnesota Swine Producers' association 1954 Honor Roll.

They were given medals for outstanding work in hog production at the association's annual meeting on the University of Minnesota's St. Paul campus during Farm and Home Week.

E. F. Ferrin, head of the University's animal husbandry department, presented awards to the following:

Oscar Bergene, Adams--15 sows, 10.8 pigs farrowed, 9.4 weaned, 9.1 raised, 213 lb. av. wt., 164 days; Roy Bigelow, Claremont, 20 sows, 14.0 pigs farrowed, 10.9 weaned, 10.8 raised, 205 lb. av. wt., 170 days; Virgil Buffington, Kenyon--14 sows, 11.4 pigs farrowed, 10.1 weaned, 9.8 raised, 216 lb. av. wt., 162 days; Ed Dooley, Wells--34 sows, 10.5 pigs farrowed, 9.4 weaned, 9.1 raised, 210 lb. av. wt., 181 days; Clayton Johnson, St. James--38 sows, 9.2 pigs farrowed, 8.3 weaned, 8.1 raised, 191 lb. av. wt., 180 days; Ferrest Loquai, Dodge Center--12 sows, 10.8 pigs farrowed, 10.1 weaned, 10.1 raised, 218 lb. av. wt., 164 days; Walter and Robert Luedtke, Fairmont--12 sows, 10.5 pigs farrowed, 8.9 weaned, 8.9 raised, 217 lb. av. wt., 188 days; George Manzke, Fairmont--12 sows, 11.4 pigs farrowed, 9.6 weaned, 9.6 raised, 232 lb. av. wt., 198 days; Roy Mueller and Sons, Arlington--26 sows, 10.7 pigs farrowed, 9.2 weaned, 9.2 raised, 214 lb. av. wt., 199 days; Minor Nelson, Stewartville--20 sows, 9.2 pigs farrowed, 8.4 weaned, 8.4 raised, 204 lb. av. wt., 192 days; Jim Oliver, Winnebago--11 sows, 11.8 pigs farrowed, 11.2 weaned, 11.1 raised, 218 lb. av. wt., 177 days; Dale Parsons, Vernon Center--20 sows, 10.6 pigs farrowed, 10.1 weaned, 10.0 raised, 225 lb. av. wt., 194 days; John Price, Wabasso--10 sows, 11.2 pigs farrowed, 9.5 weaned, 9.5 raised, 228 lb. av. wt., 182 days; Richard Quaday, Blue Earth--15 sows, 8.7 pigs farrowed, 8.0 weaned, 8.0 raised, 204 lb. av. wt., 184 days; Lionel Reeves, Wardon--10 sows, 10.0 pigs farrowed, 9.0 weaned, 9.0 raised, 194 lb. av. wt., 178 days; Ed Ringhofer, Owatonna--14 sows, 9.6 pigs farrowed, 9.5 weaned, 9.5 raised, 207 lb. av. wt., 196 days; L. H. Schmiesing, Vernon Center--29 sows, 8.6 pigs farrowed, 7.9 weaned, 7.9 raised, 237 lb. av. wt., 198 days; Bernard Spronk, Edgerton--15 sows, 9.6 pigs farrowed, 8.7 weaned, 8.7 raised, 212 lb. av. wt., 178 days; George Tweit, Kiester--16 sows, 11.0 pigs farrowed, 10.3 weaned, 9.0 raised, 212 lb. av. wt., 193 days; Arnold Wall, Mountain Lake--13 sows, 9.4 pigs farrowed, 8.6 weaned, 8.4 raised, 200 lb. av. wt., 156 days.

B-303-hrj

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 12, 1955

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FOR RELEASE:  
THURSDAY, 3 P.M., JANUARY 13  
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#### STRIKING DESIGNS IN CLOTHES FOR FORCEFUL TYPE

Be sure your selection of clothes is wise for you and for your individual wardrobe, women attending Farm and Home Week on the University of Minnesota's St. Paul campus were advised today (Thursday p.m.).

"If you are the dramatic and forceful type, you can wear striking designs and colors and still be seen as a personality," Ethel Gorham, assistant professor of home economics at the University of Minnesota, told an audience of homemakers. "However, if you are the quiet, retiring type, you need to be careful of your choices so your clothing does not eclipse you."

Many undesirable figure features can be minimized through skillful use of line. Illusions may also be brought about through color; for example, a person may appear larger or may seem smaller in size because of color choice, Miss Gorham said.

At a session on modernizing farm homes, Elizabeth Burr, extension home improvement specialist at the University, listed these points for families to consider when planning bathrooms: location to bedrooms, ventilation, storage, size of fixtures desired and lighting.

Miss Burr emphasized the importance of having bathroom wall and floor finishes that are easy to care for and resistant to steam and moisture.

B-304-jbn

University Farm News  
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St. Paul 1 Minnesota  
January 12 1955

SPECIAL

#### ANNUAL POTATO INSTITUTES SCHEDULED

The University of Minnesota will hold several Potato Institutes in Red River Valley counties, beginning Monday, January 17.

Announcement comes from Orrin C. Turnquist, Extension horticulturist, who will conduct the Institutes in cooperation with the county agent.

The schedule follows: Monday, January 17, 8 p.m., Kennedy Community Center, for Kittson County; Tuesday, January 18, 1:30 p.m., at Filtration Plant, Stephen, for Marshall County; two meetings in West Polk County--one at VFW Hall, East Grand Forks, at 1:30 p.m., Wednesday, January 19; a second the same day, January 19, at 8 p.m., at the Climax Community Hall; Thursday, January 20, 8 p.m., City Hall, McIntosh, for East Polk County; Friday, January 21, at 8 p.m., Baker Hall, for Clay County.

The Institute program features discussions of new potato varieties, summary of the University's Red River Valley yield plot results in 1954, latest information on improving potato color, preventing vine-killing, sprout inhibition and other topics.

A set of colored slides of Red River Valley potatoes on display in Twin Cities retail markets will be shown.

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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.

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 12, 1955

Immediate Release

#### SEED GROWERS AND ELEVATOR MANAGERS HONORED

Four Minnesota farmer seed growers, three grain elevator managers, a crop improvement worker and an Ivanhoe seed firm were honored last night (Wednesday evening, January 12) at the annual dinner of the Minnesota and Northwest Crop Improvement associations.

It took place in Coffman Memorial Union on the University of Minnesota's Minneapolis campus as part of Farm and Home Week, which began Tuesday, January 11, and runs through Friday on the St. Paul campus.

Honored as "Premier Seed Growers" for their outstanding work in producing and distributing approved varieties of farm crop seeds were: H. W. Bly, Hancock; Elmer J. Grathwohl, Fairmont; Hillard H. Graupman, Biscay; and Arthur Hjeltman, Cambridge.

E. J. "Ed" Mitchell of the Flax Development Committee of the Flax Institute, Minneapolis, was named an "Honorary Premier Seed Grower."

Honored for crop improvement work as elevator managers were: Erwin W. Bluhm, Commander Elevator, Janesville; Carl Gjernes, Osborne-McMillan Elevator, Thief River Falls and William Svare, Mc Cabe Bros. Elevator, Kennedy.

Continuing a plan inaugurated last year, the associations honored a Minnesota retail seed company for its efforts in crop improvement. The firm is the Farmers' Seed and Supply company, Ivanhoe. Its manager is Graham Fuller, Lincoln county agent at Ivanhoe from 1937 to 1948. Fuller was elected to the state legislature last fall.

Rodney A. Briggs, extension agronomist at the University, presented the Premier Seed Growers' Awards; Leo J. Carlin of the Northwest Crop Improvement association, the elevator managers' awards and Charles V. Simpson, Waterville, president of the Minnesota Crop Improvement association, the seed firm award.

Last year's seed firm award winner was Farmer Seed and Nursery company, Faribault.

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 12, 1955

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FOR RELEASE:  
NOON, THURSDAY, JANUARY 13, 1955  
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#### DIRECT LOANS BEST FOR MACHINERY PURCHASES

Farmers who borrow money to buy new machinery should consider a direct loan-- it has several advantages, a University of Minnesota agricultural economist told a Farm and Home Week audience this morning (Thursday, January 13).

The economist, Reynold P. Dahl, said that interest on a direct loan may be lower because bankers usually charge simple interest--that is, after the farmer's first payment on the loan's principal, interest is charged only on the remainder. But, on contracts, interest is sometimes figured in advance and added to the whole principal of the loan--thus, the farmer also pays "interest on his interest."

Such interest figured in advance may make total interest much higher, Dahl said. On a \$1,200 loan to be paid back in 12 monthly installments at 6 per cent, the total "simple interest" payment would be \$39. But if interest is charged in advance and added to the principal, the total is nearly twice as much--\$72.

Another direct loan advantage is that the farmer may be in a stronger bargaining position if he comes to the machinery dealer with his financing all worked out. He can then bargain with cash in hand even though he borrows from a bank.

It's also an advantage to get a machinery loan from the same place a farmer gets his other production credit. If he gets all his non-real estate credit from one lender, he will be better able to keep a close eye on the type and size of such debts.

A fourth advantage: in a direct loan, the farmer gets title to the machinery. With a contract, title remains with the dealer and he can take back the machinery without foreclosing.

It's not all one-sided, however--contracts have advantages, too, Dahl points out. For example, the sales contract may give a farmer definite assurance of a longer time to pay off the loan.

Nevertheless, Dahl says, advantages of direct loans probably outweigh those of contract-type.

News Bureau  
University of Minnesota  
Institute of Agriculture  
St. Paul 1, Minnesota  
January 13, 1954

Special to Faribault county

(with mat)

NEW HOME AGENT  
BEGINS WORK  
JANUARY 23

Mary Kisor, South St. Paul, will begin work as Faribault county home agent on January 23, with headquarters in the county extension office in Blue Earth.

Since January 3, Miss Kisor has been serving as assistant home agent in Waseca county. She was graduated from the University of Minnesota in December, with a major in home economics. She has also attended Macalaster college.

Miss Kisor has been a 4-H club member and has been active in church youth work.

-jbn-

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 13, 1955

Immediate Release

#### 919 BRAND ALFALFA NOT RECOMMENDED BY UNIVERSITY

Because of numerous requests for information, Will M. Myers, head of the University of Minnesota's agronomy department, announced today that "919 Brand" alfalfa seed is not recommended by the Minnesota Agricultural Experiment Station.

Myers pointed out that the Experiment Station advises use of certified seed of recommended varieties. The reliability and superior performance of these recommended varieties has been proven in an extensive comparative testing program where each variety is studied for yield, disease reaction and winter-hardiness.

"919 Brand" alfalfa is not a variety -- in fact, it has not actually been advertised as a variety, Myers points out. According to information released regarding "919 Brand" by the organization offering it for sale, it is a blend of ordinary alfalfas of different varieties and origins.

Information on "919 Brand" alfalfa was first released to the public and to University of Minnesota agronomists in November, 1954. Thus, no comparative performance results of this alfalfa are available.

However, in extensive University field tests ordinary alfalfas have not been superior to the improved recommended varieties in yield, resistance to leaf and stem diseases and insects. Ordinary alfalfas have moreover, consistently shown much less resistance to bacterial wilt than improved varieties such as "Ranger" and "Vernal."

Myers said that about 40,000,000 pounds of certified seed of varieties adapted to Minnesota growing conditions were produced last summer. He urged farmers to buy only certified seed of adapted, improved varieties such as "Ranger," "Ladak" and "Narragansett," and thus be assured of performance superior to that obtainable from ordinary alfalfa seed.



University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 13, 1955

Immediate Release

#### 4-H BROWN SWISS WINNER NAMED

Vada Sharkey, 17, Hanley Falls, has been named state 4-H Brown Swiss winner for 1954, Leonard Harkness, state 4-H club leader at the University of Minnesota, has announced.

Vada, a member of the Normania Busy Buddies 4-H club, has been in club work for six years. In 1953 she was named state champion in the "Quality Milk Production Emphasizing Care of Equipment" demonstration class at the State Fair and received a trip to the National Dairy Cattle Congress in Waterloo, Iowa. This year she was chosen state champion individual dairy foods demonstrator at the State Fair. Vada has exhibited blue ribbon dairy animals at the State Fair, and in 1953 took reserve grand champion honors.

Canton winners, who will each receive Swiss bells, are: Stanley Swenson, Mabel; Leo F. Shugel, New Ulm; Eloise Tuman, Hutchinson; and Audrey Leeseburg, Parkers Prairie.

The awards are provided by the Minnesota Brown Swiss Breeders' association.

B-308-clb

University Farm News  
Institute of Agriculture  
University of Minnesota<sup>1</sup>/<sub>2</sub>  
St. Paul 1, Minnesota  
January 13, 1955

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FOR RELEASE:  
FRIDAY NOON, JANUARY 14  
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#### GOOD QUALITY FURNITURE WORTH REFINISHING

Make sure a piece of furniture is worth the effort of refinishing before you give long hours and a great deal of elbow grease to the task, Juliette Myren, assistant professor of home economics at the University of Minnesota, cautioned homemakers today (Fri. a.m.).

Speaking at the closing day's Farm and Home Week session for homemakers on the St. Paul campus, Miss Myren pointed out that it will take time and hard work to achieve the rich glow and patina you want on a piece of furniture. For that reason, furniture of poor quality may not be worth the effort of refinishing. On the other hand, refinishing a piece of fine-quality furniture will prove very rewarding.

Old pieces of furniture dating back to grandmother's day are more likely to be of good quality and more worthwhile to refinish than more recent pieces, Miss Myren said.

B-309-jbn  
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FOR RELEASE:  
FRIDAY 3 P.M., JANUARY 14  
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#### QUEEN BEE MAINTAINS NORMAL SOCIAL LIFE OF COLONY

The queen is the most important factor in maintaining the social life of a colony of bees, M. H. Haydak, associate professor of entomology at the University of Minnesota, told a Farm and Home Week audience of beekeepers on the University's St. Paul campus today (Friday afternoon).

A colony of honey bees has only one queen. She is actually the mother of all the bees in the hive. Through her the good and the bad qualities of the strain are transferred from generation to generation.

However, it has recently been proved, Dr. Haydak said, that the queen's work is not limited to egg laying. She also has a profound influence on the normal functioning of the colony. Her body secretes a special substance which is licked off by the bees of her entourage. This substance is distributed by these bees to other bees of the hive. As long as there is enough of this substance available, the life of the colony goes on without interruption. But when there is not enough of this substance, the bees begin to behave as if they are queenless and start to build cells for a new queen.

B-310-jbn

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 13, 1955

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FOR RELEASE:  
NOON, FRIDAY, JAN. 14  
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#### FORAGES ESSENTIAL IN MINNESOTA AGRICULTURE

Forages must be given an increasingly important role on Minnesota farms if we are to build and maintain a prosperous agriculture.

This statement came this morning (Friday, January 14) from Will M. Myers, head of the University of Minnesota's agronomy department, who spoke before a Farm and Home Week audience on the St. Paul campus.

He pointed out that forage grasses and legumes give the most efficient erosion control methods known today. They maintain and improve soil structure, tilth and internal drainage because of increased organic matter, less frequent tillage, protection of soil surface from puddling from "beating" action of raindrops, and their deep root penetration.

Such forages as alfalfa, capable of producing as many feed units per acre as feed grains, give a bonus of as much as 100 pounds or more of nitrogen per acre. Said Myers, "This is not just cheap N -- it's free N."

Also, perennial forages are low-risk crops and rotations which give a diversified cropping system are less risky than single-crop systems, he said.

He pointed out that high quality forage is not roughage. It is almost equal to feed grains in TDN -- total digestible nutrients, the feed scientist's unit of feed value -- and because it's rich in protein, minerals and vitamins, it is a better balanced feed for most types of livestock than the feed grains.

Myers cited a recent Michigan State college research study which showed that enough high quality forage could reduce feed costs in milk production by 20 to 25 per cent.

B-311-hrj

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 13, 1955

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FOR RELEASE:  
4 P.M., JANUARY 14  
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#### U. SPECIALIST GIVES DAIRY OUTLOOK

There will still be dairy surpluses in 1955--but the gap between milk production and use promises to be the smallest since 1952.

This statement came this afternoon (Friday, Jan. 14) from E. Fred Koller, professor of agricultural economics at the University of Minnesota, in a talk before a Farm and Home Week audience on the St. Paul campus.

He said 1954 milk production will total 124 billion pounds and use was about 119 billion pounds. This left a gap of about five billion pounds of milk the government bought in butter, cheese and milk powder. This is a billion pounds less than in 1953.

1955 milk production is estimated at 124 to 125 billion pounds and use at 121 billion pounds--a possible gap of three or four billion pounds, much lower than in recent years.

An indication of adjustment is that U. S. fall milk production was about the same as a year ago. In first half 1954, production was much larger than in first half 1953. November, 1954, Minnesota milk production was about six per cent lower than November, 1953. U. S. butter production in the week ending December 30, 1954, was 19 per cent below a year ago.

Koller also pointed out adjustments on the use side. Americans were using 8 to 9 per cent more butter in the first 10 months of 1954 as they did in the same period of 1953.

Prospects for good business conditions and rising income in 1955 should make dairy foods demand as strong or stronger than in 1954, Koller said.

Despite progress in closing the gap between production and use, supplies of dairy products will keep prices near support level most of 1955, Koller predicted. Dairy income should be about the same as in 1954. During the year, the government should be able to reduce its storage holdings a great deal and thus give dairy markets a more optimistic view into 1956, he said.

Koller said growing U. S. population will require about two billion pounds more milk each year.

File

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 14, 1955

SPECIAL TO MINNESOTA WEEKLY  
NEWSPAPERS

SPRAYERS' SHORT  
COURSE SET UP  
AT UNIVERSITY

Dr. Henry Hurtig, an outstanding Canadian authority on application of insecticides to large cropland and forest areas, will speak twice next week at the University of Minnesota's short course for aircraft and ground sprayers. It will be held Monday and Tuesday, Jan. 24-25, on the University's St. Paul Campus.

J. O. Christianson, director of short courses, says this year's sprayers short course will have about the largest attendance ever--due largely to the growing use of aircraft and ground spraying as a means of insect and weed control. Course chairman is A. W. Buzicky, associate state entomologist.

Dr. Hurtig is on the staff of the Suffield Experimental Station, Ralston, Alberta, Canada. He will speak on "common-sense explanations of the research programs that go into developing new methods of applying insecticide."

Monday's program opens with a discussion of Minnesota 1954 aerial and ground spraying statistics. Sig Bjerken, state weed control supervisor, will speak on weed control laws. Others will discuss how proper storage can improve insecticidal and herbicidal efficiency.

Afternoon program includes talks on calibration and care of sprayers, advantages of ground spraying equipment in insect control, residential spraying--including insect and lawn weed control--and spraying laws.

Tuesday morning, R. S. Dunham, University professor of agronomy, will speak on 1955 weed control recommendations; J. W. Butcher, assistant state entomologist, will speak on 1954 insect surveys and 1955 predictions; and L. K. Cutkomp, associate professor of entomology, will speak on 1955 insect control recommendations.

Tuesday afternoon's program has talks on herbicide brush control,

(more)

aircraft brush control, brush control in forest management and foliar fertilizer application. J. W. Butcher will lead a panel on the 1954 control programs. It will include the state entomologist's staff, the chemical industry, and two county agents--Bill Olson, Breckinridge, and Nick Weyrens, Fergus Falls. Both <sup>were</sup> active in the 1954 armyworm attack in northwestern Minnesota.

Complete course information is available from the Short Course Office, Institute of Agriculture, University of Minnesota, St. Paul 1.

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 14, 1955

These were called in as they were reported  
immediate following elections. They were  
called to:

1. AP
2. UP
3. City Desk, St. Paul Pioneer  
Press-Dispatch
4. City Desk, Minneapolis Star  
and Tribune

#### LIVESTOCK ASSOCIATIONS ELECT OFFICERS

Several Minnesota and upper midwest livestock breed associations chose 1955 officers during the University of Minnesota's 53rd annual Farm and Home Week which ended today (Friday, January 14).

They are as follows:

Midwest Goose Growers' Association: Melvin Speckman, Sleepy Eye, president; Vice-president, Marlin Schlitz, Bancroft, Iowa; T. H. Canfield, associate professor of poultry husbandry at the University of Minnesota, secretary-treasurer. The members voted to change the association's name from Minnesota Goose Growers' Association to Midwest Goose Growers' Association.

Minnesota Sheep Breeders' Association: R. E. Keitzer, Truman, president; Earl Cunningham, Sleepy Eye, vice-president; P. A. Anderson, associate professor of animal husbandry at the University of Minnesota, St. Paul 1, secretary.

Inbred Livestock Registry Association: Tilman Bubenszer, widely-known hog raiser of Noblesville, Indiana, president; Harold Lucie, August, Illinois, vice-president; Laurence M. Winters, professor of animal husbandry at the University of Minnesota, St. Paul 1, re-elected secretary-treasurer. Directors: Arthur Likes, Winchester, Illinois, who was 1954 president of the association; Everett Frink, New Hampton, Iowa.

Minnesota Swine Producers' Association -- C. W. Myers, Blue Earth, was reelected president. Henry G. Zavoral, extension livestock specialist at the University of Minnesota, was reelected secretary-treasurer. The association chose a new vice-president in Spotted Poland Chinas. He is James Grass, Owatonna, and succeeds Joe Kopel, Olivia. All other breed vice-presidents were reelected for another year.

News Bureau  
University of Minnesota  
Institute of Agriculture  
St. Paul 1, Minnesota  
January 14, 1955

SPECIAL TO AP, UP, TWIN CITIES NEWSPAPERS

#### SWINE PRODUCERS CHOOSE OFFICERS

The Minnesota Swine Producers' Association reelected C. W. Myers, Blug Earth, president, in business meetings during the University of Minnesota's Farm and Horse Week.

H. G. Lavoral, Extension livestock specialist at the University of Minnesota, was re-elected secretary-treasurer.

The association chose a new vice-president in Spotted Poland Chinas, however. He is James Grass, Onatonna, and succeeds Joe Kopel, Olivia. All other breed vice-presidents were reelected for another year. They are:

Berkshire—Lloyd Hanson, Onatonna; Chester White—George W. Miller, Austin; Duroc Jersey—R. C. Juhl, Lavarna; Commercial—Grant Lapham, Caledonia; Inbred—Morris Kempstead, Honaton; Hampshire—George Lorenz, Walls; Yorkshire—Harlan Hanks, Winnabago; Poland China—Theodore Golts, Elmore.

Association field secretaries are Carrell Plager, George A. Hermal and Co., Austin; Cliff Cairns, Wilson and Co., Albert Lea; and R. E. Hodgson, superintendent of the Southern School of Agriculture, Wasson.

HRJ



Corn cobs alone or corn cobs and straw make very good bedding for cattle.

A. L. Harvey

#

To cut your work time, study the arrangement of your buildings and your work methods around them. Records kept by livestock farmers show that's where they spent 75 per cent of their time--around the buildings.. -- S. A. Engene

#

Order your garden seeds and nursery stock early to be sure of a complete selection of varieties. Order nursery stock from reliable nurseries in your area to be sure of getting high quality stock of adapted varieties. If in doubt as to the hardiness of any variety, check with your County Agent or write to the Horticulture Department on the University of Minnesota's St. Paul Campus before ordering. -- Leon C. Snyder

#

Plan a cropping program with less oats. It takes 100 bushels of oats to supply as many feed nutrients as 50 bushels of corn or  $2\frac{1}{4}$  tons of good legume hay. You don't very often raise such high quality oats. -- S. B. Cleland

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Minerals should be on hand for all stock, always. This is especially important in winter and for animals producing milk or carrying young. Trace element salt is warmly recommended. Many self-feed both trace element salt and bone meal. Feeding only block salt is not quite enough. -- H. G. Zavoral

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Almost every problem the small sawmill operator faces is covered in "Small Sawmills, "A Pocket Guide," published by the U. S. Department of Agriculture. Because small sawmills play such an important part in harvesting timber all over the

country, the Forest Service's Laboratory at Madison, Wisconsin, prepared this 28-page booklet for operators, foremen and small-mill workers. It's available from the Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul 1.

-- Parker Anderson

#

To save the most baby pigs requires a combination of good sanitation, first-class sow feeding and proper management. A good pig crop can't get "started" without a combination of all three factors coordinated wisely. -- L. E. Hanson

#

Another year of post-war adjustment lies ahead and a high premium will go to good managers. Great variations in crop yields and profits have been noted on nearby farms working under almost identical conditions. This suggests many farmers can still make great improvements. -- W. H. M. Hartmans

News Bureau  
University of Minnesota  
Institute of Agriculture  
St. Paul 1 Minnesota  
January 17 1955

### HELPS FOR HOME AGENTS

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

In this issue:

Bring Spring into Your Home  
Timesavers from the Freezer  
Frozen Casserole Dishes  
You Can Freeze Waffles, Too  
Dacron for Pillows

Nylon Upholstery Durable  
Nylon for Slip Covers, Bedspreads  
Be Sure Vinyl Plastic is Coated  
How Much Water Softener?  
For Whiter Clothes

### HOME BEAUTIFICATION

#### Bring Spring into Your Home Now

You can enjoy spring blossoms in the midst of winter by cutting some branches from your trees or flowering shrubs and bringing them into the house now. Gustav Hard, extension horticulturist at the University of Minnesota, says that by "forcing" these branches, you can bring the buds out of their resting stage and make them bloom several months before they normally would.

Branches of apple, cherry, plum, bush honeysuckle, pussywillow and bridal wreath can all be forced easily and will bloom indoors in about three weeks. For lovely green arrangements, you might want to bring in some horse chestnut, barberry, grape, oak, gray birch, red maple or willow.

Choose a sunny day to get the branches. Cut them back to the main stem and remember not to ruin the shape of the shrub. Follow pruning rules when you cut.

Crush the stem ends with a hammer to improve the intake of water. Plunge the stems into a deep container of water and keep for a week or 10 days in the basement or on a porch where the temperature is about 45°F. It's a good idea to syringe the buds twice a day with water. When the leaves are ready to emerge, take the branches upstairs and make attractive arrangements with them.

You can have continuous bloom if you'll cut a few branches each week from now until spring.

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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.

FREEZING FOODSTimesavers From the Freezer

If you're making a casserole dish for an evening meal, make a double portion and put half into the freezer. Then you'll have a meal ready for an emergency.

But here are some pointers to remember when preparing casserole dishes for the freezer. They come from the frozen foods laboratory at the University of Minnesota. Undercook vegetables, macaroni and chow mein; otherwise they will be mushy. If you are making beef stew for the freezer, eliminate the potatoes and add them before serving.

For tiptop quality and economical use of freezer space, plan your use of pre-cooked main dishes so they will be in the freezer no longer than two or three months.

\* \* \* \* \*

To Prepare Frozen Casserole Dishes for Serving

You can freeze, heat and serve your casserole dishes right in the same oven-proof container. Remove the cover after taking the dish from the freezer and top the food with dry bread crumbs mixed with butter. You can safely put ovenproof containers directly into the oven from the freezer. Bake at 400°F. about one hour for pints, one hour and 45 minutes for quarts or until the food is heated through and crumbs are golden brown.

If you didn't freeze the food in an ovenproof container, transfer it to a baking dish for reheating, add the crumb topping after about 30 minutes' baking or when the food has thawed enough to press it into the shape of the baking dish. Bake at 400°F.

\* \* \* \* \*

You Can Freeze Waffles, Too

Next time you have some waffle batter left over, bake it and freeze the waffles. After the waffles are cool, wrap them in moisture-vaporproof material and put into the food freezer. If you freeze more than a single layer of waffles, place a piece of freezer paper between the layers.

For a quickie breakfast or lunch, unwrap the waffles, place quarters in the automatic toaster with dial set at light. Or place the unwrapped waffles on a shelf in the oven at 400°F. for two minutes. Serve immediately.

HOME FURNISHINGSDacron for Pillows

Dacron-filled pillows are now appearing on the market. Their main characteristics are their resilience and their washability without lumping. They are also less expensive than down pillows.

\* \* \* \* \*

Nylon Upholstery Durable

Flat-woven nylon fabrics are making their debut in the upholstery field because of their durability and cleanability.

If you're in the market for upholstered furniture, ask to see some of the pieces upholstered in nylon. Since nylon takes dyes well, you'll find nice clear colors as well as attractive grayed tones.

A characteristic of nylon upholstery is its resistance to abrasion -- in other words, it is extremely durable even under hard wear. Cleaning is easy because spots can be sponged off. Grease spots may be removed with carbon tetrachloride.

It's important, though, that seams and edges be finished well on nylon upholstery because ends may fray.

\* \* \* \* \*

Nylon for Slip Covers, Bedspreads

Nylon materials are available now for slip covers, drapery and bedspreads. An advantage of nylon for these uses is that it sheds soil and is washable.

A practical material for bedspreads is nylon plisse because it requires no pressing and does not wrinkle. You may have to look for these materials in yard goods departments.

\* \* \* \* \*

Be Sure Vinyl Plastic is Coated

Planning to re-upholster your dining room chairs? Vinyl plastic is favored by many homemakers because it will give long wear and can be wiped off when it is soiled. However, be sure the vinyl plastic has a heavy cotton drill backing. The "supported" plastics will resist cracking.

HOME MANAGEMENTHow Much Water Softener?

If you use a packaged chemical to soften your water, no doubt you've wondered exactly how much to use. Here's a test suggested by Dorothy Bonnell, in charge of the household equipment laboratory at the University of Minnesota.

Add  $\frac{1}{2}$  teaspoon softener and  $\frac{1}{2}$  teaspoon soap to 1 gallon of hot water. Then shake till you get suds. If a thick layer of suds forms on the top, you have sufficient water softener. Be sure to use soap, not synthetic detergent for the test, because a synthetic detergent will suds regardless of water hardness.

If the water does not form a good suds, take a fresh gallon of hot water, add  $\frac{1}{2}$  teaspoon of soap and 1 teaspoon of softener. If that amount of softener does not give you sufficient suds, continue the test, increasing the amount of softener till you get the results you want. You can then tell how much softener to use in your washing machine by multiplying its capacity - for example, 16 gallons - by the amount of softener you needed in 1 gallon of water.

\* \* \* \* \*

For Whiter Clothes

Is tattle-tale gray one of your laundry problems?

Dorothy Bonnell, in charge of the household equipment laboratory at the University of Minnesota, says your clothes will be whiter if you use very hot water - up to 160°F. - for white cottons and linens. Here are some other points to remember for whiter, cleaner clothes: use soft or softened water; don't overload the washer; give your clothes a long enough washing period, but absolutely no longer than 20 minutes. And, finally, you'll get better results if you sort your loads by color, amount of soil and type of fabric. It's also well to remember that for efficient washing loads need to be balanced between large and small pieces. In other words, when you wash sheets, put some small articles into the tub with them.

News Bureau  
University of Minnesota  
Institute of Agriculture  
St. Paul 1 Minnesota  
January 17 1955

To all counties  
For use week of  
January 24 or after

FILLERS for Your Column and Other Uses....

Can Use More Fertilizer -- Although since 1950 we've doubled the amount of nitrogen we're putting on Minnesota farm crops, we could still use about ten times as much and at a profit--that is, it would more than pay for itself. Of course, using fertilizer doesn't guarantee high yields. You have to do other wise cropping practices in order to allow fertilizer to work most efficiently. This information comes from Harold E. Jones, Extension soils specialist at the University of Minnesota.

\* \* \* \* \*

Penta-treated Posts Good -- Fenceposts treated with pentachlorophenol--"Penta"--are a very profitable use of farm woodlot thinnings. If you treat your fenceposts with such a preservative, they'll last a lot longer and easily pay for their treatment cost in long life and better service. Remember: it's not just the cost of new fenceposts when you have to replace--it's the time you spend that you could profitably spend elsewhere in this efficient-farming age of ours. This suggestion comes to us from Parker Anderson, Extension forester at the University of Minnesota.

\* \* \* \* \*

Potato Seed Treatment Possible -- Potato growers--especially potato seed producers--will welcome the news that some of the new antibiotics will check bacterial seed rot and blackleg. The Maine Experiment Station reports that treating cut seed pieces in solutions of streptomycin sulfate alone or combined with terramycin hydrochloride is effective reducing losses from blackleg and from seed-piece decay or missing hills caused by bacterial rot. But commercial preparations are not yet on the market. When they become available, we'll be among the first to let you know. This tip came from Ray Rose, Extension plant pathologist at the University of Minnesota.

\* \* \* \* \*

Good Winter Treatment for Breeding Ewes -- A good winter ration for breeding ewes can mean profit and success for your year's sheep enterprise. And if you haven't treated sheep for worms since you began winter feeding, don't delay any longer. With internal parasites out of operation, a flock will use their feed much better and unborn lambs will grow and develop into stronger animals, better able to stand the rigors of life at lambing time. These suggestions come from W. E. Morris, Extension livestock specialist at the University of Minnesota.

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 17, 1955

SPECIAL

#### UNIVERSITY POULTRY SCIENTISTS MEASURE FEED POISONING

University of Minnesota poultry scientists now have some accurate indications of how Arasan-treated seed corn affects egg production. Arasan is a fungicide used in treating seed grain.

The research was reported today by Dr. Elton L. Johnson, head of the poultry department; Dr. Paul E. Waibel, poultry nutritionist; and Dr. B. S. Pomeroy, head of the veterinary bacteriology department.

Experiments were set up on the St. Paul campus after they traced a severe drop in egg production on a large Minnesota poultry farm to the corn in the ration. At the height of the poisoning, 700-bird pens which produced over 500 high quality eggs per day were down to 20 or 30 odd-shaped eggs and a large number of soft-shelled eggs per day. At least six farms in the area experienced egg production difficulty caused by Arasan-treated corn. Fully 75,000 hens were involved.

University researchers fed several corn seed treating substances to groups of chickens and found that Arasan produced the same symptoms as noted on the poultry farm--far fewer eggs, most of them soft-shelled.

They then conducted a larger experiment with the hens kept in wire cages for close observation. When fed low levels of Arasan SFX - 25 to 50 p.p.m. (parts of Arasan per million parts of feed)-- a group of eight chickens began laying fewer eggs after four days on the ration. Toward the end of the 16-day experiment, this group was producing about a third as many eggs as normally and half were misshapen.

Another eight chickens fed a ration containing 100 p.p.m. of Arasan produced five soft-shelled eggs and 17 normal eggs during the first four days on the ration. The last four days of the 16-day experiment, this group produced only one hard-shelled egg and six soft-shelled eggs--their normal four-day output had been 28 eggs.

A ration with 200 p.p.m. Arasan showed even greater effect. During the first four days on this ration, a group of eight hens produced eight hard-shelled eggs and

(more)



16 soft-shelled eggs. They laid no normal eggs and 29 soft-shelled eggs during the last 12 days of the experiment.

Dr. Waibel says that apparently the substance has an effect on the section of the hen's "egg assembly line" in which the shell is applied. The shell-applying process takes about 16 hours--the longest "stop" the egg makes on its journey from the ovary to the nest.

Eggs are usually laid in the morning, but the afflicted birds in the experiment laid their soft-shelled eggs during the night--some as early as 8 p.m. Thus the egg apparently is expelled before the shell can be deposited, Waibel points out.

The University specialists started their research on the Arasan problem as a result of investigation of an outbreak of what the farm owner first regarded as a disease. The symptoms -- severly lowered egg production and a large number of soft-shelled eggs -- also are found in such common poultry diseases as infectious bronchitis, Newcastle disease and pullet disease.

However, the "disease" didn't act like a disease -- the birds seemed healthy, and University veterinarians were unable to isolate an infectious disease agent.

The birds soon recovered from the first epidemic only to be stricken again in a few weeks. This ruled out infectious disease, since in recovery a flock usually is immune to future attack.

The farm owner, who mixes his own feed, then decided to try a commercial feed in three pens of Leghorn hens. The three pens recovered almost immediately. University poultry nutritionists then tested the home-mixed ration. When corn was omitted, the chickens performed normally. When it was included in the ration they showed the "disease" symptoms.

Analysis of another farm ration which had caused decreased egg production and odd-shaped eggs showed that it contained 22 p.p.m. Arasan. Another farm ration which stopped production of hard-shelled eggs within two days contained 104 parts per million.

Since fully-treated seed corn contains about 800 p.p.m. Arasan it could be diluted by adding large quantities of untreated corn and still produce disastrous results, Waibel says.

Short-time feeding of the substance didn't noticeably affect hens' appearance and vigor--just their egg-laying ability.

News Bureau  
University of Minnesota  
Institute of Agriculture  
St. Paul 1 Minnesota  
January 17 1955

To all counties  
For use week of  
January 24 or after

RECOMMENDED CROP  
VARIETIES GIVEN  
IN NEW FOLDER

A new University of Minnesota Extension folder, No. 22, "Varieties of Farm Crops," available free at his office, is packed full of useful spring seeding information says County Agent \_\_\_\_\_. It contains lists of recommended varieties and their maturity ratings, yields, disease resistance, and hardiness expectations.

In extensive tests, University agronomists decide whether a variety should be recommended in Minnesota. Such tests include trial plots on experiment stations and farms which show yields, maturity ratings and how well plants throw off disease. Laboratory tests are made on small grains, flax, and soybeans to see if they are acceptable for industrial uses.

Varieties not meeting high standards are listed under the "not recommended" heading. Those that have not finished a three-year testing period fall in the "not adequately tested" list. Such varieties may show promising qualities but until testing is finished varieties cannot be judged "recommended" or "not recommended".

Folder 22 also has a map dividing Minnesota into six corn maturity zones. Farmers in the Northern Minnesota zone may expect an 81-day maturing season while Southern zone farmers get 110 to 116-day a year. For example, recommended Minhybrid 408, with a 113 to 117-day maturing period, is a variety grown best in the Southern zone.

A map of four small grain and flax regions in Minnesota will be useful when selecting varieties of these plants. Folder 22 helps you to choose crop seed best adapted to your zone.

"Varieties of Farm Crops," Folder 22, is available at the county agent's office or from the Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul 1, Minnesota.

News Bureau  
University of Minnesota  
Institute of Agriculture  
St. Paul 1 Minnesota  
January 17 1955

To all counties

ATT: HOME AGENTS  
For publication week of  
January 24 or after

FALLS A CONSTANT  
DANGER IN HOME

Falls continue to account for the lion's share of deaths and injuries in the homes of the state as well as the nation, reports Home Agent \_\_\_\_\_.

In 1953 well over half of the 568 fatal accidents in Minnesota homes were caused by falls. Half of these falls were on stairs, the other half on the same level, according to Glenn Prickett, extension safety specialist at the University of Minnesota. Most of the people who died from falls were in the age group 65 years and over.

Because everyone is susceptible, regardless of age, and because falls can result from so many and varied activities in work or play, the University safety specialist stresses the importance of every member of the family eliminating hazards about the home and checking personal habits that may be hazardous.

Here are some precautions families can take to reduce the number of falls:

- . See that stairways are adequately lighted and kept clear of boxes, toys, mops, brooms and tools.
- . Eliminate such stairway hazards as weak hand rails, loose rugs at top or bottom, worn treads or carpeting and ice on outside steps. Replace worn or broken boards and torn carpeting immediately.
- . Paint the bottom basement step white.
- . Refrain from dangerous personal practices of running up and down stairs and carrying objects which obstruct the view.
- . Wipe up promptly any grease or spilled water on the kitchen floor.
- . Use anti-skid wax on the floors.
- . Anchor or skid-proof all scatter rugs.
- . Arrange furniture so there are clear pathways of travel.
- . Use a sturdy step stool instead of makeshift climbing aids such as stacked boxes and chairs.

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 18, 1955

SPECIAL TO WILCOX ✓  
County Agent Introduction

How was it possible to get three busy county agents together at one time? It happened, though, and here they are, after election of officers at the Annual Extension Agents' Conference.

On the left is Howard Balk, who was elected vice-president of the Minnesota County Agents' Association in the recent election. He's been county agent for over 20 years at Bagley in Clearwater county. D. T. Grussendorf, center, South St. Louis county agent at Duluth, has a 20-year record as county agent in that area. He was elected president of the association. At right is Wayne Hanson, county agent at Caledonia, Houston county. Hanson has been in the Extension Service since 1939 and is also considered one of the Minnesota top agents.

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University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 18, 1955

Immediate Release

(with mat)

#### NEW EXTENSION HORTICULTURIST AT U

C. Gustav Hard of Wyanet, Illinois, has been appointed extension horticulturist at the University of Minnesota.

He will fill the vacancy created by the resignation of Richard J. Stadtherr, who has accepted a position as research fellow in the University's department of horticulture.

According to Skuli Rutford, director of the University of Minnesota Agricultural Extension Service, Hard will work chiefly in the area of ornamental horticulture, farm homestead improvement and landscape development. As extension horticulturist he will speak at meetings and conduct demonstrations in rural areas to instruct extension agents and gardeners in improved methods of gardening and home grounds planning. He will also work with nurserymen and florists.

Hard comes to Minnesota from Michigan State college where he has completed his work for the doctor of philosophy degree in general horticulture. He also holds bachelor's and master's degrees in horticulture from Michigan State college. In connection with his graduate study, he worked extensively in television.

A native of Illinois, Hard spent several years managing the home dairy farm near Manlius, Illinois.

He holds memberships in the American Society of Horticultural Science American Institute of Biological Science and Beta Beta Beta, biological honorary fraternity.

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 18, 1955

Immediate Release

#### LAMB FEEDERS' DAY AT MORRIS

How fattening lambs grew on several different levels of stilbestrol and how feeding the substance compared to implanting it--this will be one of several research findings to be demonstrated Tuesday, January 25, at the Annual Lamb Feeders' Day at the University of Minnesota's West Central School and Experiment Station at Morris.

Animal nutritionists there also have several weeks' results comparing stilbestrol and Synovex, another synthetic growth-inducing hormone. And they will tell how alfalfa hay alone stacks up with corn silage alone as a roughage for lambs.

The Lamb Feeders' Day program begins at 10 a.m. at the School's Livestock Pavilion and ends about 3:30. Visitors may eat their noon meal at the School Dining Hall. A special lamb dinner will be served.

Prof. William H. Hale, sheep nutritionist at Iowa State College, Ames, will speak at 11:30 on scientific lamb feeding. After lunch, Lyle Lamphere of the Central Livestock association, South St. Paul, will give the sheep outlook for 1955, and Claude Epling, agricultural development agent for the Soo Line Railroad, will give an entertaining demonstration on "Lamb Magic."

Robert M. Jordan, assistant professor of animal husbandry at the University of Minnesota, and H. G. Croom, principal of the West Central School and Station, will outline research results.

B-314-hrj

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

#### SPRAYERS' SHORT COURSE AT UNIVERSITY

Dr. Henry Hurtig, an outstanding Canadian insecticide authority, will speak twice next week at the University of Minnesota's short course for aircraft and ground sprayers. It will be held Monday and Tuesday, Jan. 24-25, on the St. Paul campus.

J. O. Christianson, director of short courses, says this year's sprayers short course will have the largest attendance ever--due largely to the growing use of aircraft and ground spraying in insect and weed control. Course chairman is A. W. Buzicky, associate state entomologist.

Dr. Hurtig is on the staff of the Suffield Experimental Station, Ralston, Alberta, Canada. He will speak on "common-sense explanations of the research programs that go into developing new methods of applying insecticide."

Monday's program opens with a discussion of Minnesota 1954 aerial and ground spraying statistics. Sig Bjerken, state weed control supervisor, will speak on weed control laws.

Afternoon program includes calibration and sprayer care, advantages of ground spraying in insect control, residential spraying--including insect and lawn weed control--and spraying laws.

Tuesday morning, R. S. Dunham, University professor of agronomy, will give 1955 weed control recommendations; J. W. Butcher, assistant state entomologist, will speak on 1954 insect surveys and 1955 predictions; and L. K. Cutkomp, associate professor of entomology, will give 1955 insect control recommendations.

Tuesday afternoon features herbicide brush control, aircraft brush control, forest management brush control and foliar fertilizer application. J. W. Butcher will lead a panel on the 1954 control programs. It will include the state entomologist's staff, members of the chemical industry, and County Agents Bill Olson, Breckinridge, and Nick Weyrens, Fergus Falls. Both were active in the 1954 armyworm attack.

Complete course information is available from the Short Course Office, Institute of Agriculture, University of Minnesota, St. Paul 1.

B-315-hrj

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 18, 1955

Immediate Release

#### UNIVERSITY POULTRY SCIENTISTS MEASURE FEED POISONING

Arasan-treated seed corn which got into feed channels in error stopped hens' production of hard-shelled eggs within two days at a Minnesota poultry farm. Arasan is a fungicide for treating seed grain.

University of Minnesota poultry scientists, who found corn the culprit, began experiments last fall after a severe drop in egg production hit several farms. On one, 700-bird pens which gave 500 eggs per day were down to 20 or 30 odd-shaped eggs daily. About 75,000 hens were involved.

Farm owners first suspected disease. But after clearing up briefly, the "disease" struck again--most infectious poultry diseases make birds immune. One farmer then tried a commercial feed and his hens recovered immediately. University poultrymen checked his home-mixed feed and found corn "guilty."

They then fed several corn seed treatments in hens' rations and found that Arasan SFX produced the same symptoms as on the stricken farms. Later, in 16-day feeding tests, hens fed low levels of Arasan SFX--25 to 50 parts Arasan per million parts feed--began laying fewer eggs after four days. By the end of the 16, they were laying a third as many eggs as normally, half misshapen.

Eight hens fed a ration with 100 p.p.m. Arasan laid five soft-shelled and 17 normal eggs the first four days of the 16. The last four, they laid only one hard-shelled egg, six soft-shelled ones. Their normal four-day output--28 eggs.

Fed a ration with 200 p.p.m. Arasan, eight hens laid no normal eggs and 29 soft-shelled ones the last 12 days of the 16.

Fully-treated seed corn contains about 800 parts Arasan per million. Thus, even heavily diluted by untreated corn it would be unsafe. Apparently Arasan affects shell-application, which takes about 16 hours--the longest "stop" the egg makes. Most soft-shelled eggs were laid at night, some as early as 8 p.m. Hens usually lay eggs in mid-morning.

The farms' hens all recovered. Feeding the substance a short time does not affect hens' appearance or vigor--only their egg-laying ability.

B-316-hrj



University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 18, 1955

SPECIAL: Omar Shonkwiler, The Farmer

Phoned to: AP, UP, Tribune,--Minneapolis,  
St. Paul Pioneer Press-Dispatch

#### MINNESOTA CROP IMPROVEMENT ASSOCIATION ELECTS OFFICERS

Frank L. Mitchell, Canby, was elected president of the Minnesota Crop Improvement Association during the association's annual business meeting at the University of Minnesota's Farm and Home Week.

He succeeds Charles V. Simpson, Waterville, who will continue as a member of the association's board of directors.

Vice-president is Harold Roth, Cambridge. Herbert F. Johnson, Hadley, was elected treasurer and Dorothy M. Gilmore, a member of the University of Minnesota staff, St. Paul, assistant treasurer. Carl Borgeson, associate professor of agronomy at the University, was elected secretary.

Ward H. Marshall is seed registrar for the association, which has its offices on the University's St. Paul campus.

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University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 19, 1955

Immediate Release

#### NEW DAIRY SCHOLARSHIP ANNOUNCED

A new dairy science scholarship of \$1,500 will be awarded a qualified student within the next few months for graduate study in dairying at the University of Minnesota.

It is known as the John Brandt Memorial Scholarship and was created recently by the John Brandt Memorial Foundation--friends and associates of the late Mr. Brandt--at Litchfield.

Announcement of the scholarship came from Carl Leaf, Litchfield, president of the Foundation. Its award will be determined by a committee of members of the dairy department of the University of Minnesota and the Foundation, with approval of the University Graduate School.

The late Mr. Brandt was a well-known upper midwest dairy figure, president of Land O' Lakes Creameries, Minneapolis, at the time of his death. He owned a large dairy farm near Litchfield.

The scholarship award will be made for the 1955-1956 school year, beginning in fall quarter, 1955. Under certain conditions, the student's tuition fees also will be paid in addition to the full award of \$1,500.

Applicants for the scholarship must have earned a bachelor of science degree in dairy husbandry from an accredited college in the U. S.

Full information is available from the Dairy Department, Institute of Agriculture, University of Minnesota, St. Paul 1, Minnesota.

B-317-hrj

University Farm News  
U. of M., Institute of Agriculture  
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Timely Tips -- for Farmer, Feb. 5

If you are going to purchase brome-grass seed for a pasture mixture, be sure to purchase a southern variety such as Lincoln, Achenback or Fisher. These varieties are winter-hardy and are more productive than the Canadian type. These southern varieties in a legume-brome-grass mixture will provide more grass in the mixture and thereby prevent bloat. -- A. R. Schmid

Time spent during these cold winter days planning your garden and landscape for the coming year will save you time and effort when the spring garden rush begins. Study your garden catalogs, find the information on new varieties and order early to be assured of having your order filled. -- C. Gustav Hard

The moisture content of deep floor litter in laying houses can be greatly reduced in midwinter if you substantially increase the ventilation of the poultry building during warm, sunny days from about 10 a.m. to 3 p.m. -- T. H. Canfield

Penta-treated posts are a profitable use for woodland thinnings. They last far longer than untreated posts. In this efficient age you have to think not only of the cost of replacing posts but of your valuable time in putting them in. -- Parker Anderson

One of the most profitable of farm practices is the revitalizing of pastures. The gains beef cattle make can often be doubled by good pasture management. Such a program includes establishing better pasture plants, renovation, fertilizing, weed control and -- under some conditions -- rotational grazing. -- E. F. Ferrin

New research in use of antibiotics in agriculture now is bringing forth control of more and more plant diseases. In medicine, antibiotics' value is already proven. Recent experiments indicate that in the last two or three years certain antibiotics used as very weak foliage sprays will check such bacterial diseases as apple fire blight, bacterial blight of beans and certain other diseases. -- R. C. Rose

We're "feeling our oats." With more than eight million acres of oats on Minnesota farms this year, many are feeling the effects of this low-income crop. Even when rust is not a factor, feed production from oats is rarely more than half that obtained from alfalfa-brome or from corn. -- Harold E. Jones

Proper feeding of the sow and the little pigs starts sometime before the sow is bred. It's a bit late at this stage of the game, of course, to do much about the way the sow was fed last fall at breeding time. But, there is no question that many of the difficulties in saving baby pigs come from poor or inadequate feeding of the sow while's she pregnant. You might want to check your ration now to see if it has and gives everything Susie and her on coming family need. -- L. E. Hanson

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University of Minnesota  
St. Paul 1, Minnesota  
January 19, 1955

Immediate Release

#### EGGS BEST BUY

Eggs are one of the best food bargains available to consumers this month, both from the standpoint of price and nutrition, according to Mrs. Eleanor Loomis, extension consumer marketing agent at the University of Minnesota.

Price-wise, they are cheaper than they have been for a good many years. Eggs are an outstanding value any way you want to compare them, Mrs. Loomis pointed out.

- Compared with prices for other foods, eggs have gone down during 1954 while most other foods have stayed about the same.

- Compared with usual prices of eggs, they're about 40 per cent cheaper than five years ago.

- In the last 10 years, the average person's income has gone up about two thirds, while egg prices are down more than one third. Your paycheck will buy more than twice as many eggs today as it would have bought 10 years ago.

Health-wise, eggs are rich in protein for building and repairing body tissues. They contain two of the B vitamins, thiamine and riboflavin, and generous amounts of vitamins A and D, all of which help to protect against infections and to prevent the so-called deficiency diseases.

The yolk of the egg is one of the most concentrated packages of health-giving food to be found anywhere in nature, is rich in iron for red blood cells and in phosphorus for good teeth and bones, as well as in other minerals needed by the body.

Nutritionists recommend at least one egg a day for everyone. Preparing eggs in a variety of ways and using more recipes that call for eggs is good management, now that eggs are plentiful and reasonably priced, Mrs. Loomis said.

B-318-jbn

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 19, 1955

Immediate Release

#### NEW OAT VARIETY RELEASED

Minland, a new variety of oats, has been developed and released by the University of Minnesota's Agricultural Experiment Station.

Announcement comes from W. M. Myers, head of the agronomy department. Minland was developed from a cross of Landhafer x (Mindó x Hajira-Joanette) made in 1946. It has Landhafer's resistance to all races of crown rust now prevalent in North America.

Minland is the latest in a series of oat varieties developed by the University and now on its recommended list. The others are Mindó and Bonda, released and placed on the recommended list in 1945, and Andrew, added in 1947.

Minland is resistant at moderate temperatures--less than 80 to 85 degrees--to all races of stem rust except 7-A, not prevalent at present. It is also resistant at both moderate and high temperatures to stem rust races 1, 2, 5, 8, 9, 10 and 11. Minland is the only oat variety, of which seed is available, that has such combined resistance to crown and stem rust. It is also resistant to smuts.

Limited supplies of foundation and registered Minland seed will be distributed to registered and certified seed growers through the usual county allotment and distribution system. Seed will not, however, be available at the Agricultural Experiment Station for direct distribution to growers.

In three years of tests at the University's Institute of Agriculture in St. Paul, Minland has yielded slightly more, on the average, than Andrew, about 16 bushels per acre more than Gopher and 18 bushels more than Clinton. In two years of tests at four locations, Minland averaged about the same in yield as Andrew and yielded about 15 bushels per acre higher than Gopher, Clinton and Clintafe.

Minland is an early variety, essentially like Andrew in maturity. It is also similar to Andrew in plant height and average seed size. It is lower in bushel weight, however, weighing about as much as Clintafe. Minland has been superior to Clinton, Clintafe and Andrew in lodging resistance.

B-319-hrj

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 19, 1955

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FOR RELEASE:  
9 P.M., THURSDAY, JANUARY 20  
\* \* \* \* \*

#### GREAT YIELD INCREASES POSSIBLE WITH BETTER FARMING

ROCHESTER, MINNESOTA --- By proper soil management, fertilizing and other improved practices, Minnesota farmers can boost overall production 30 to 40 per cent above present levels and still keep soil healthy and productive.

This statement came this evening (Thursday, Jan. 20) from William P. Martin, head of the University of Minnesota's soils department, who spoke here at the annual banquet of the Minnesota Association of Soil Conservation District Supervisors.

Martin said that in order to feed the 30 million more people we will have in 1975, we will need new production equal to the agricultural output of Wisconsin, Michigan, Indiana, Illinois and Minnesota combined.

At present crop yields and animal production rates, we will be 100,000,000 acres short of enough land to grow the food needed then.

He discussed several means of hiking food production at a low unit cost, and, at the same time, reversing the trend of land depletion and soil loss. One need, he said, is more accurate fertilization. Farmers need to know exactly what their soil needs in order to "feed" it best--and a soil test is a "must" in accurate fertilization.

He said Minnesota farmers could profitably use a million and a half tons of fertilizer--about ten times as much as now--in increasing crop yields and building the soil for the future.

We may also soon find it necessary to irrigate some crops in order to pull maximum yields out of the soil.

Long-needed research on Minnesota soils' physical properties will begin soon, he announced. Soil scientists at the University will tackle the study of how soil particles "work and get along together" and what cropping practices will keep them healthy.

Many soil secrets will have to be uncovered by research if Minnesota and the nation are to show a "rising curve of agricultural production," Martin said. B-320-hj

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Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 20, 1955

Immediate Release

#### 4-H HOLSTEIN WINNERS NAMED

Barbara Scheibel, 19, New Ulm, and Dale Blank, 20, Janesville, have been named state 4-H Holstein winners for 1954, Leonard Harkness, state 4-H club leader at the University of Minnesota, has announced.

This year's 4-H Holstein girl has been in 4-H work in Brown county for 10 years and is a member of the Cottonwood Jolly Juniors. She has completed 70 projects in her 4-H work, 27 of these in raising and showing her dairy cattle. Barbara is now in her second year at Mankato State Teachers' college.

Blank, a student at the University of Minnesota, has been in 4-H work for nine years. His special project is dairy cattle, and for the past seven years he has had the grand champion of all dairy breeds at the Waseca county fair. In 1954 he won the grade Holstein championship on his Holstein cow at the Minnesota State Fair.

The winners in the state 4-H Holstein contest will receive special awards from the Minnesota Holstein-Friesian Breeders' association next spring for their outstanding work in raising Holstein cattle.

B-321-clb



File

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 20, 1955

SPECIAL WITH EIGHT PICTURES TO THE  
MINNESOTAN, UNIVERSITY STAFF MAGAZINE

New varieties of grain aren't developed overnight. On these pages, U. scientists show how it's done over the years.

PICTURE NO. 1 Here begins a new variety of wheat or oats. In this picture, the pollen-producing units of a selected "mother" plant are removed. In a few days the "mother" will be dusted with pollen from a selected "father" plant and the cross- or marriage — will be complete. The hybrid "child" of this marriage will inherit traits of both its parents. Desirable traits, such as high yield and disease resistance, thus can be combined in the "child." Wheat normally reproduces by self-fertilization—there is no normal "marriage" in the grain families.

2 J. J. Christensen, left, head of the U. Plant pathology department, and Will M. Myers, head of agronomy, examine an F 1 plant, "child" of the union made in Picture 1. F - 1 offspring which best resist the several kinds of diseases will be allowed to reproduce and continue their strong qualities.

3 Here a graduate student in plant pathology is injecting disease spores into the descendants of F 1 plants after about three years of experimental growing and selective trials. The scene is a field test plot on the St. Paul Campus.

4 Back to the laboratory goes harvested grain from several "lines." Here, Louis Cuendet, associate professor of agricultural biochemistry, pours a sample of wheat kernels into the small mill that grinds it into flour.

5 Biochemistry lab technician Calvin Norris tests the elasticity, resistance, and breaking point of dough made from flour ground by Cuendet. After bread from this dough is baked, Norris will examine the texture, crumb color and volume of the sample loaves. At left is a commercial-size loaf, at center the usual lab-

oratory size and at right the junior size used in early-stage testing, when there is barely enough yield from a proposed line to give flour for three or four small loaves.

6 Ten to 12 years after the "marriage" the variety has acquired its own strong personality and is ready to go to work. The next step is seed increase. A bushel of foundation seed shipped to California in October for winter-seed growing will come back to Minnesota as 50 or 60 bushels. Planted in the spring, these will yield up to 1,000 bushels of seed. Given free rein now, the new variety grows with all the fantastic force of nature. Now, Minnesota's registered and certified seed growers--outstanding farmers who are members of the Minnesota Crop Improvement Association--enter the increase plan by producing registered seed on their own farms. Carl Borgeson, associate professor of agronomy in charge of seed stocks at the University, inspects a seed grower's field of oats. After three years of increase, the new variety may have grown to 20,000 bushels and will have a name -- perhaps after some beloved figure in the world of cereal crops. "Lee" and "Thatcher" wheat were named this way.

7 Here, perhaps 14 years after the "marriage" and the first F 1 hybrid child, is the harvest -- fruit of years of work by University scientists and cooperating farmers to perfect new higher-yielding, disease-resistant wheat, oats, rye, barley and corn.

8 One of the final results of the long pull of testing and planting: bread for the nation's tables--in this case, that of Kathleen Mc Kay, whose father, Gerald R. Mc Kay, is Extension visual aids specialist on the U's St. Paul Campus. Fifteen years in the making, the University-developed grain in her after-school snack goes back before seven-year-old Kathy was born.

hrj:h

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 20, 1955

SPECIAL  
IMMEDIATE RELEASE

#### AG SCHOOL INDOOR TRACK AND FIELD MEET HOMECOMING FEBRUARY 5

The 63rd annual Indoor Track and Field meet and Midwinter Homecoming of the University of Minnesota School of Agriculture at St. Paul will be held on the St. Paul Campus Saturday, February 5, it has been announced by Dr. J. O. Christianson, superintendent of the School..

The day's activities will begin at 11:50 a.m. with a convocation program in Coffey Hall. Speaker will be Myron W. Clark, Stewartville, Minnesota, a member of the class of 1933, President of the School of Agriculture Alumni Association, and Commissioner, State Department of Agriculture, Dairy and Food.

The Track and Field meet will be held in the School gymnasium beginning at 1:30 p.m. Men and women of the School will compete in their respective divisions for group and individual honors. Events will include foot races, swimming, rope climbing, jumping, shot put, rope vault, archery and nail drive.

Awards will be presented by Dr. J. O. Christianson.

In the evening, there will be two basketball games, with a men's and women's team of students each opposing a team of graduates. A dance will follow at 9:00 p.m.

In announcing the annual event, Dr. J. O. Christianson invited all former students and alumni to attend.

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*File*

*Information*

COOPERATIVE EXTENSION WORK  
IN  
AGRICULTURE AND HOME ECONOMICS  
STATE OF MINNESOTA

University of Minnesota  
U. S. Department of Agriculture  
County Extension Services  
Cooperating

Agricultural Extension Service  
Institute of Agriculture  
St. Paul 1 Minnesota  
January 20 1955

TO: County Agricultural Agents

Attached is an announcement of a new oat variety, Minland, developed by the University's agronomy department. This news story went to all daily newspapers, radio and TV stations on Wednesday, January 19 for use January 20 and after.

We thought you'd like a copy of the story to have the facts on hand for answering questions about it. Please feel free, of course, to use any of the information in your column or a news story of your own.

*Harry R. Johnson*

Harry R. Johnson  
Extension Information Specialist

HRJ:ms

Enc.

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 19, 1955

Immediate Release

#### NEW OAT VARIETY RELEASED

Minland, a new variety of oats, has been developed and released by the University of Minnesota's Agricultural Experiment Station.

Announcement comes from W. M. Myers, head of the agronomy department. Minland was developed from a cross of Landhafer x (Mindó x Hajira-Joanette) made in 1946. It has Landhafer's resistance to all races of crown rust now prevalent in North America.

Minland is the latest in a series of oat varieties developed by the University and now on its recommended list. The others are Mindó and Bonda, released and placed on the recommended list in 1945, and Andrew, added in 1947.

Minland is resistant at moderate temperatures--less than 80 to 85 degrees--to all races of stem rust except 7-A, not prevalent at present. It is also resistant at both moderate and high temperatures to stem rust races 1, 2, 5, 8, 9, 10 and 11. Minland is the only oat variety, of which seed is available, that has such combined resistance to crown and stem rust. It is also resistant to smuts.

Limited supplies of foundation and registered Minland seed will be distributed to registered and certified seed growers through the usual county allotment and distribution system. Seed will not, however, be available at the Agricultural Experiment Station for direct distribution to growers.

In three years of tests at the University's Institute of Agriculture in St. Paul, Minland has yielded slightly more, on the average, than Andrew, about 16 bushels per acre more than Gopher and 18 bushels more than Clinton. In two years of tests at four locations, Minland averaged about the same in yield as Andrew and yielded about 15 bushels per acre higher than Gopher, Clinton and Clintafe.

Minland is an early variety, essentially like Andrew in maturity. It is also similar to Andrew in plant height and average seed size. It is lower in bushel weight, however, weighing about as much as Clintafe. Minland has been superior to Clinton, Clintafe and Andrew in lodging resistance.

B-319-hrj

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 20, 1955

Immediate Release

#### CANNERS' AND FIELDMEN'S SHORT COURSE SET

The eighth annual University of Minnesota Canners' and Fieldmen's Short Course will be held at the Leamington Hotel, Minneapolis, February 1 and 2.

Announcement comes from J. O. Christianson, director of agricultural short courses. Course chairman is A. E. Hutchins, associate professor of horticulture.

Monday morning's program includes a panel on the farm price program and production controls led by O. B. Jesness, head of the agricultural economics department, and a talk on the economics of canning crops by Fran Jones, economist with the Green Giant company, Le Sueur.

Monday noon luncheon speaker is Bon D. Grussing, sales manager, Minneapolis-Moline company, Minneapolis.

Afternoon program features discussions of what canners and processors are doing for agriculture, how canning crops fit into the agricultural picture, how canners contribute to the community and how they can better serve the institutional market.

The annual banquet will be held at 6:30 Monday evening in the Leamington Hotel ballroom. Berry Akers, editor-in-chief of The Farmer magazine, St. Paul, will speak on "World Trade and Agriculture."

Wednesday's program includes discussions on use of nitrogen fertilizer in canning crop production by William P. Martin, head of the University's soils department, and John M. Mac Gregor, associate professor of soils. A. W. Buzicky, associate state entomologist, will speak on aphid and corn borer control. Others will speak on weed control and increasing corn yields.

Noon luncheon speaker on Wednesday is Irving J. Courtice, sales manager, Crites-Moscow Growers, Madison, Wisconsin.

Complete information on the course is available from the Short Course Office, Institute of Agriculture, University of Minnesota, St. Paul 1, Minnesota.

B-322-hrj

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 20, 1955

Immediate Release

#### YOU CAN FREEZE MANY CHEESE VARIETIES

Many types of cheese can be stored in the home freezer for six months or longer but, for successful keeping, cheese must be frozen in small amounts.

Research on freezing cheese now being conducted by W. B. Combs and Howard Morris in the dairy husbandry department at the University of Minnesota has come up with that answer to a question many homemakers have been asking--particularly concerning cheese that does not keep for any length of time in the refrigerator.

Freezing cheese in small amounts, preferably in half-pound lots or in the amount the family will eat at one serving, is very important, the experiments show. Pieces should never be larger than a pound in size. When pieces larger than that are frozen, large ice crystals form and cause the structure of the cheese to break so it becomes mealy and crumbly. Fast freezing is also desirable--hence the necessity of freezing cheese in small-size pieces.

Cut cheese should be wrapped in aluminum freezer foil. Press the foil tightly against the cheese to eliminate air pockets. Small cheeses can be left in their original packages, but it may be well to overwrap them with aluminum foil.

These varieties of cheese will keep well for six months or longer if the freezer is at 0°F.: Cheddar, Brick, Port du Salut, Swiss, Provoloni, Club, Liederkranz, Camembert, Parmesan and Romano.

Cream cheese does not freeze successfully, since it becomes watery and mealy after freezing, according to Professor Combs and Dr. Morris. Blue cheese becomes crumbly and mealy after it is thawed. However, if it is to be used in salads, cooking or to make a potato chip dip, it can be frozen satisfactorily.

Cheese should be thawed in the refrigerator in the wrapper. After it is thawed, remove it from the refrigerator about an hour before serving. Cheese is at its best when it is at room temperature.

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 24, 1955

Immediate Release

#### THORP DISCUSSES VETERINARY EDUCATION

MINNEAPOLIS --- An up-to-date, well-trained veterinary profession is becoming increasingly important to the welfare of the nation, W. T. S. Thorp, head of the University of Minnesota School of Veterinary Medicine, said today, (Mon. Jan. 24).

He spoke at the 58th annual meeting of the Minnesota State Veterinary Medical Society.

This need for practicing veterinarians, teachers and research workers is a result of several things. These include our increasing animal population losses in livestock and poultry due to diseases, the danger of introducing animal diseases not common to the U. S., and the number of animal diseases transmitted to man.

Dr. Thorp, appointed head of the School last summer, cited past achievements and problems now facing the School. Among the achievements he listed were:

\*The good showing of graduates on selective examinations for commissions in the U. S. Public Health Service.

\*Favorable reports on graduates now in general practice and in other fields, even in the short time since the first class was graduated in 1951.

\*Increased cooperative research with the University Medical School, providing the University with a research team to investigate problems where knowledge of both human and animal disease is necessary.

\*Development of control or diagnosis methods for many common disease problems including the well-known ring test as an additional tool in brucellosis eradication.

Dr. Thorp, however, listed many problems that still face the new School. These include:

1. A greater demand for entrance in School than can be met.
2. Adjusting curricula and research to meet new problems facing the practicing veterinarian and Minnesota livestock and poultry producers.
3. Obtaining and maintaining staff in face of inability to meet higher pay scales in other Universities and elsewhere.
4. Obtaining additional space for teaching and laboratory work to meet needs of a new School.
5. Obtaining full accreditation. High standards for facilities and faculty are required to assure accreditation.



University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
January 24, 1955

Immediate Release

#### WATONWAN COUNTY BOY NAMED 4-H CORN KING

Ronald Kelsey, Lewisville, has been named Minnesota's 4-H corn king, Leonard Harkness, state 4-H club leader at the University of Minnesota, has announced.

As state champion in the 1954 4-H corn contest, the 14-year-old Watonwan county boy will receive a \$25 bond from the Pride Hybrid company of Dassel.

Ronald had a yield of 885 bushels from his five acres of corn, an average yield of 177 bushels per acre. He has been a member of the Fieldon Rustlers 4-H club for six years.

County winners placing in the blue group in the state corn contest were: Keith Thurston, Madelia; David Pietig, Sleepy Eye; Harris L. Byers, Westbrook; Roland Kohlmeyer, Fountain; Robert Wendorf, Austin; David Booker, Dover; and Roger Ruehling, Belle Plaine.

Other county winners were Donald Hurner, Glyndon; John Monson, Albert Lea; Kenneth Paulson, Jackson; George Friendshuh, Mora; Cedric Johnson, Litchfield; Richard Nelson, St. Peter; Jerry Shore, Worthington; David Lueck, North Redwood; James Wildman, Burtrum; Donnie Keller, Waseca; Armand Jarvis, Stillwater; Gerald Poppler, Chaska; Leroy Shigley, Northfield; David Strunk, Hoffman; David Fostervold, Atwater; Charles Miller, Dawson; Robert Hinz, Lake Benton; Marshall Hegreberg, Bonup; Harris Bendix, Deer Creek; Jack Bigalke, Wheaton; and Donald Pribyl, Maple Lake. They will receive cash awards from Pride Hybrid company.

Winners were selected on the basis of corn yield, exhibit at county fairs and completeness and accuracy of their record of cost of production and their 4-H story.

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University of Minnesota  
St. Paul 1, Minnesota  
January 24, 1955

\* \* \* \* \*  
FOR RELEASE:  
NOON, TUESDAY, JANUARY 25  
\* \* \* \* \*

#### SPECIALISTS MEASURE STILBESTROL EFFECT ON LAMBS

MORRIS, MINNESOTA --- A stilbestrol supplement fed in the ration apparently doesn't have the "kick" for growing lambs that it does for beef cattle--it didn't induce them to eat any more or gain any faster. But both stilbestrol and Synovex implants increased lambs' rate of gain up to a tenth of a pound per day.

The studies were reported here today (Tuesday, January 25) at the annual Lamb Feeders' Day at the University of Minnesota's West Central School and Experiment Station by Philip S. Jordan, associate professor of animal husbandry, H. G. Croom, School principal, both of Morris, and Robert M. Jordan, assistant professor of animal husbandry at the University of Minnesota.

Comparing stilbestrol and Synovex implants given lambs at six to seven months of age, they found both induced gain increases of up to a tenth of a pound per day. The Synovex implant contains 250 milligrams of progesterone and 10 of estradiol. It is the only hormone implant approved for use in fattening lambs.

Lambs given the stilbestrol implant gained slightly faster than those given Synovex, but the latter had a somewhat higher carcass grade and yield. They sold for 34¢ more per 100 pounds than lambs implanted with stilbestrol.

The "control" group, not implanted but fed the same high quality ration as the two implanted groups, also yielded good quality carcasses.

In feeding stilbestrol, the researchers placed two groups of lambs on a daily ration containing 1/10th milligram stilbestrol, two on a ration with 1/2 milligram and two on a ration with 1 1/2 milligrams. None of the levels fed caused lambs to gain much faster than the two "control" groups not fed stilbestrol.

The 1/2 milligram and the 1 1/2 milligram levels were slightly more effective, however, than the 1/10th milligram level. Stilbestrol-fed lambs also yielded somewhat better carcasses.

Robert M. Jordan says that "apparently we need more research with different levels and rations to find the most effective level of stilbestrol. It's certainly a wonderfully powerful feeding tool and deserves a lot of careful research to find its best possible uses."

Base ration of both the hormone-implanted and hormone-fed lambs was a full feed in which they ate an average 1.46 pounds of corn, 1.56 pounds of alfalfa hay and .10 pound soybean oil meal per day.

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Institute of Agriculture  
St. Paul 1 Minnesota  
January 24 1955

To all counties  
For use week of  
January 31 or after

FILLERS for Your Column and Other Uses....

New Oat Variety -- A new oat variety, Minland, has joined the ranks. It was developed at the University of Minnesota from a cross made in 1946. It has moderate-temperature resistance to all stem rust races except 7-A, which is no problem at present. It also resists races 1, 2, 5, 8, 9, 10 and 11 at both moderate and high temperatures. It's the only variety of which seed is available that has such combined resistance to crown and stem rust, plus resistance to smuts. Yield: a little higher than Andrew, about 16 bushels higher than Gopher, 18 bushels over Clinton. Registered and certified growers will receive seed under the usual county allotment plan.

\* \* \* \* \*

Warning About Stilbestrol -- New protein supplements containing stilbestrol are offered nowadays for fattening cattle. Here's what W. E. Morris, extension livestock specialist at the University, says about it. "Regard stilbestrol as an extra ingredient--it doesn't replace protein, vitamins or minerals or any other feed element in a ration. Remember, too, that it's designed to be fed fattening cattle and don't feed it to dairy cattle, breeding beef cattle, sheep or swine. Hormones are powerful substances and they must be used exactly as prescribed for best results."

\* \* \* \* \*

Oats--Too Much? -- Did you know that feed production from oats is rarely more than that you get from alfalfa-brome or from corn? That's even when rust doesn't cut your oat yield. Check your planting plans and see if you really can use as much oats as you first planned. The land might more profitably go into something else. This suggestion comes to us from Harold E. Jones, Extension soils specialist at the University of Minnesota.

\* \* \* \* \*

Calculate Your Own Costs -- In planning this year's cropping program, you can make a reasonably accurate comparison of various crops and what they do for you by studying your past yields. For cash crops, multiply the average yield by the average price. For feed crops, calculate the pounds produced per acre--then convert this to pounds of nutrients. This tip comes to us from S. A. Engene, associate professor of agricultural economics at the University of Minnesota.

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To all counties  
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VENTILATE FARM  
BUILDINGS FOR  
MORE PROFIT

Poor insulation and ventilation of your farm buildings causes loss of profits, says County Agent \_\_\_\_\_. And dampness rots the building and is unhealthful for livestock.

A new University Extension bulletin No. 253, "Insulation and Ventilation," is now available free, it shows how to repair or build a successful ventilating system.

Copies are available at \_\_\_\_\_'s office or from the Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul 1.

In it, University agricultural engineers explain that heat is given off by an animal to keep it warm and moisture is given off with the heat. This is the problem a farmer faces: get the moisture out of the building and keep the heat in. Information in Bulletin 253 can help you do the job by following the steps necessary to successful ventilation.

\_\_\_\_\_ says the booklet recommends using little glass. An ordinary window loses 16 times more heat than an insulated wall of the same size. They suggest only four square feet of glass to every cow in the stanchion. Hogs rate only one square foot of glass window for every 25 square feet of floor space. Poultry--one square foot of glass for every 30 square feet of floor space.

Wall and ceiling insulation also is necessary for good ventilation. The booklet lists insulation material for various frame or masonry construction. It explains kinds of vapor barriers--a treated paper that holds moisture outside the walls.

"Insulation and Ventilation" was prepared by Dennis M. Ryan, Extension agricultural engineer at the University of Minnesota.

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To all counties  
ATT: HOME AGENTS  
For publication week of  
January 31

SALT IN SAUSAGE  
HASTENS RANCIDITY

These are the days when hogs are traveling to the locker plant to return eventually as pork chops, hams, sausage and other tasty pork products.

Since it is now far more common to have the meat ground at the locker plant and taken home for further processing, Home Agent \_\_\_\_\_ passes on some precautions in handling from Ina Rowe, extension nutritionist at the University of Minnesota.

Whether meat is ground at home or at the locker plant, it should be re-processed on the same day it is ground. When the meat is allowed to stand in a big drum for any length of time, chemical action takes place which causes a rise in temperature of the meat, with the result that a souring or fermentation takes place, off-flavors develop and the sausage may become unfit for use.

As soon as the meat is ground, season it as desired, then put into cases for sausage, pack it into family-size portions and freeze or smoke it immediately.

Rancidity is one of the problems in handling pork. Spices commonly used in sausage, such as thyme and sage, are usually also antioxidants. For that reason, heavily spiced sausage will perhaps retain its flavor better than sausage which is not so heavily spiced. Salt, on the other hand, when combined with fat, tends to hasten rancidity.

When seasoning sausage, it is well to go easy on the salt and heavy on spices for long-keeping quality, Miss Rowe suggests. It may even be practical to add the salt to the sausage when it is to be prepared for the table.

Directions for preparing sausage are given in Extension Folder 48, "Sausage Recipes" available at the county extension office.

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To all counties

For use week of  
January 21

U OF M AG AND HOME RESEARCH STORY

U INTRODUCES  
TWO NEW 'MUMS

\_\_\_\_\_ county gardeners will be interested in two new outdoor chrysanthemums which have been developed by the University of Minnesota department of horticulture and are being introduced this year.

They are Wenonah (Minn. No. 48-85-69) and Vulcan (Minn. 50-125-2).

Wenonah is a medium-tall plant with light lavender blooms about  $2\frac{1}{4}$  inches in diameter. Earliest flowering of the University of Minnesota line of chrysanthemums, it starts blossoming in August and continues until hard frost. Flowers are double.

Wenonah has the ability to survive adverse weather conditions such as high temperatures, wind and rain.

Vulcan has dark red double flowers  $2\frac{1}{2}$  to  $2\text{-}3\frac{1}{4}$  inches in diameter. Flowering begins in mid-August and continues until heavy frost. The flowers are especially good for cutting. In full sun the plants reach a height of  $1\frac{1}{2}$  feet and a spread of 2 feet.

The two new varieties have done well in tests throughout the state. Plants will be available from some Minnesota nurserymen and florists this spring.

Wenonah and Vulcan bring to 30 the number of 'mums developed by the University of Minnesota's horticulture department for northern climates. The University's chrysanthemum breeding work, which has won nationwide acclaim, was begun in 1936 by the late Dr. L. E. Longley. He was a pioneer in the development of satisfactory varieties that flowered early enough for northern gardens. Now the University of Minnesota 'mum breeding program is directed toward developing hardiness for northern gardens, new colors, larger blooms and more varieties of the cushion type.

Among the Minnesota chrysanthemums grown widely in gardens in Minnesota and elsewhere are the purple Chippewa, the dark yellow Butterball, pink Dr. Longley, Purple star, the white Glacier, white Dee Dee Ahrens, Redgold and violet.

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To all counties

For use week of January 31  
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A U. of M. Ag. and Home Research Story

STILBESTROL NOT  
EFFECTIVE IN  
LAMB FEEDING

With more feedlot research, stilbestrol may fully prove its worth as a ration supplement for feeding lambs. At least, experiments at the University of Minnesota's West Central School and Experiment Station at Morris so indicate.

County Agent \_\_\_\_\_ reports that none of three levels of stilbestrol fed in a high-quality ration caused lambs to eat much more or gain much faster--it did, however, improve lamb carcasses somewhat.

Stilbestrol and Synovex implants, however, increased lambs' rate of gain up to 1/10th of a pound per day. These facts were revealed recently at the annual Lamb Feeders' Day at the Morris station by Philip S. Jordan, associate professor, H. G. Croom, school principal, both of Morris, and Robert M. Jordan, assistant professor of animal husbandry at the University of Minnesota, St. Paul.

Comparing stilbestrol and Synovex implants given lambs at six to seven months of age, both induced gain increased of up to a tenth of a pound per day per lamb. The Synovex implant contains 250 milligrams of progesterone and 10 of Estradiol. It is the only hormone implant approved for use in fattening lambs.

Lambs given the stilbestrol implant gained slightly faster than those given Synovex, but the latter lambs had a somewhat higher carcass grade and yield. They sold for 34¢ more per 100 pounds than lambs implanted with stilbestrol.

The "control" group, not implanted but fed the same high quality ration as the two implanted groups, also yielded good quality carcasses but didn't gain as much, of course.

In feeding stilbestrol, the researchers placed two groups of lambs on a daily ration containing 1/10th milligram stilbestrol, two on a ration with  $\frac{1}{2}$  milligram and two on a ration with  $1\frac{1}{2}$  milligrams. None of the levels fed caused lambs to gain much faster than the two "control" groups not fed stilbestrol.

The  $\frac{1}{2}$  milligram and the  $1\frac{1}{2}$  milligram levels were slightly more effective, however, than the 1/10th milligram level. Stilbestrol-fed lambs also yielded somewhat better carcasses.

Robert M. Jordan says that "apparently we need more research with different levels and rations to find the most effective level of stilbestrol. It has a lot of wonderful potential as a feeding tool and deserves plenty of study to find its best uses."

Base ration of both the hormone-implanted and hormone-fed lambs was a full feed in which they ate an average 1.46 pounds of corn, 1.56 pounds of alfalfa hay and .10 pound soybean oil meal per day.

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University Farm News  
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January 25 1955

*File*

SPECIAL TO BLUE EARTH COUNTY  
NEWSPAPERS WITH MAT

KUNKEL CHOSEN  
ASSISTANT  
COUNTY AGENT

Byron L. Kunkel, 29, a native of New Point, Missouri, has been appointed assistant Blue Earth county agent at Mankato. He began his duties February 1 and will work under County Agent Wayne Weiser.

Kunkel is a 1951 graduate of the University of Missouri, Columbia, and comes to his new position from a job as manager of the McLeod plant of the Minnesota Liquid Fertilizer Company. He was born and raised on a 200-acre general livestock farm in Holt County, Missouri.

An active 4-H member in his early youth, he showed the grand champion ton litter at the Interstate Livestock Show, St. Joseph, Missouri, in 1939. He participated in livestock judging in college and while a 4-H club member.

Kunkel is married and has a two-year-old child. He replaces Duane Venekamp, 4-H club agent who resigned recently.

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SPECIAL to WILCOX

County Agent Introduction

Bob Gee, county 4-H club agent in Meerhead, Clay county, believes in lasting publicity for 4-H. As an example of his "ingrained" program, he and Ray Wolf, right, extension information specialist in radio at the University of Minnesota, examine the 4-H emblem on the floor of Bob's office in the beautifully-appointed new Clay County Courthouse.

Bob's 4-H'ers can usually be found on winners' lists in both regional and state competition and Bob himself is a familiar figure at the State Fair, Junior Livestock Show, and the Red River Valley Winter shows. The latter are coming up the week of February 21-26 at Crookston.

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*File*  
University Farm News  
Institute of Agriculture  
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St. Paul 1 Minnesota  
January 25 1955

SPECIAL

(To AP, UP, Twin Cities newspapers,  
WCCO-radio, Detroit Lakes Tribune,  
Hopkins Review)

WOOLGROWERS TO MEET AT DETROIT LAKES

The Minnesota Co-operative Wool Growers' Association will hold its annual meeting Saturday, February 19, at the high school in Detroit Lakes.

Announcement comes from W. E. Morris, extension livestock specialist at the University of Minnesota and secretary of the association.

The morning program begins at 9 a.m. and will be devoted to demonstrations and talks on good flock management, saving newborn lambs, creepfeeding, winter-feeding, grading market lambs and wool care for best prices. A carcass demonstration will be given by Armour and Co., West Fargo, Minnesota.

A free lunch will be served at noon and the afternoon program will include an explanation of the government incentive payment plan for wool producer, the economic outlook for sheep raisers and the association's financial report for 1954, given by Carl Nadasdy, Minneapolis, manager of the association, Tom Clark, Hopkins, is association president.

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St. Paul 1, Minnesota  
January 27, 1955

Immediate Release

#### MINNESOTA FARM MANAGEMENT ASSOCIATION MEETS

The Minnesota Farm Management association will hold its annual meeting Thursday and Friday, February 3-4, at Hotel Leamington, Minneapolis.

Announcement comes from Truman Nodland, assistant professor of agricultural economics at the University of Minnesota and secretary-treasurer of the association. Francis Kelly, Redwood Falls, is association president.

Registration and a mixer will be held from 10 to 12 and the program begins at 1 p.m. It includes talks on cost of farming operations, by S. A. Engene, associate professor of agricultural economics at the University; calculation of custom rates, by S. B. Cleland, a University extension farm management specialist; a comparison of operating costs for liquefied petroleum, gasoline and Diesel tractors, by Don Bates, a University extension agricultural engineer; and adjusting farming to current trends, by E. H. Hartmans, a University extension farm management specialist.

The annual dinner will be at 6:30 Thursday evening with Walter Heller, University professor of economics, speaking on "Our Taxes."

Friday morning's program consists of discussions, Minnesota's 1955 farm program, by Clarence Palmy, chairman, state ASC committee; the livestock outlook, by Lyle Lamphere, Central Livestock association, South St. Paul; and how the farm program affects grain marketing, by R. H. Hegman, Kellogg Commission company, Minneapolis.

At a noon luncheon, Paul Benson, Green Giant company, Le Sueur, will speak on public relations.

Afternoon program features a talk, "Soil Structure, A Key Factor in Management," by William P. Martin, head of the University of Minnesota's soils department; a discussion of the dairy outlook, by E. Fred Koller, University professor of agricultural economics; and a talk on weed control problems, by R. S. Dunham, professor of agronomy.

The meetings are open to the public, Nodland said.

B-327-hrj

University Farm News  
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January 27, 1955

Immediate Release

#### "KITCHI GESHIG" DATES SET

The weekend of May 13-15 has been set for "Kitchi Geshig," the University of Minnesota St. Paul campus open house and special events days. "Kitchi Geshig" is Chippewa for "big deal" or "wonderful event," according to Dick Hanson, agricultural education junior from Winthrop and chairman of the event.

"Kitchi Geshig" is designed as a weekend in which prospective agriculture, forestry, home economics and veterinary medicine students and their parents can get acquainted with the opportunities of the St. Paul campus.

Theme of the 1955 "Kitchi Geshig" observance is "Arrows to Advancement." In addition to an open house and tours of St. Paul campus departments, many special entertainment programs, including livestock judging contests and a queen contest, are planned, Hanson said.

Committee chairmen for the event are: Bruce Larson, dairy husbandry junior, Claremont, finance; Kathryn Stinar, home economics extension junior, Lakefield, publicity; Donald Kvasnicka, agricultural education senior, Owatonna, special events; David Chester, veterinary medicine sophomore, Faribault, open houses; and Carolyn Larson, home economics junior, Faribault, entertainment.

Further details on the 1955 "Kitchi Geshig" will be announced as the "big deal" develops, Hanson said.

B-328-hrj

MINNESOTA FARM CALENDAR

- \*Jan. 21-Feb. 25 Lumbermen's Short Course, Institute of Agriculture, University of Minnesota, St. Paul 1
- \*Feb. 1-2 Cannery and Fieldmen's Short Course, Leamington Hotel, Minneapolis
- \*Feb. 3 Southwest Field Crops Institute, Redwood Falls
- \*\*Feb. 14-17 4-H Grain Marketing School, Minneapolis
- \*Feb. 17-18 Bankers Agricultural Credit Conference, Institute of Agriculture, University of Minnesota, St. Paul 1
- \*\*\*Feb. 21-25 Red River Valley Winter Shows--Northwest School Farmers' Week, Crookston
- \*Feb. 24-25 Short Course for Tile Drainage Contractors, Institute of Agriculture, University of Minnesota, St. Paul 1
- Feb. 25-26 Minnesota Spring Barrow Show, Albert Lea
- Mar. 1 District Spring Barrow Show, Montevideo
- Mar. 3-4 Farm Forum, Nicollet Hotel, Minneapolis
- \*Mar. 4-5 Livestock Marketing Clinic, Institute of Agriculture, University of Minnesota, St. Paul 1
- \*Mar. 10 Careers in Home Economics Workshop, Institute of Agriculture, University of Minnesota, St. Paul 1
- \*\*Mar. 11-12 State 4-H Radio Public Speaking Contest, Institute of Agriculture, University of Minnesota, St. Paul 1
- \*Mar. 13-14 Annual Meeting, School of Agriculture Alumni Association, Institute of Agriculture, University of Minnesota, St. Paul 1
- \*Mar. 20-22 State Rural Youth Conference and Short Course, Institute of Agriculture, University of Minnesota, St. Paul 1
- \*Mar. 21-23 Liquefied Petroleum Gas Service School, Institute of Agriculture University of Minnesota, St. Paul 1
- \*Mar. 21-26 Dairy Herd Improvement Association Training School, Institute of Agriculture, University of Minnesota, St. Paul 1
- \*Mar. 28-29 Farm Management Short Course, Nicollet Hotel, Minneapolis

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

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

\*\*\*Information from T. M. McCall, Superintendent, Northwest School and Experiment Station, Crookston

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Immediate Release

#### PLOWVILLE '55 DATES SET

FERGUS FALLS---Plowville '55, Minnesota's annual state soil conservation day, will be held on the Trosvik Brothers farms four miles north of Rothsay, September 16-17.

Announcement of the dates came today from Rudy Gustafson, general manager of the event, and Theodore Hegseth, general chairman, following a meeting of the Plowville '55 executive committee here. Both Gustafson and Hegseth, immediate past president of the Minnesota Association of Soil Conservation Districts, are from Fergus Falls.

Nick Weyrens, West Otter Tail county agent, has been named secretary of the event and chairman of the publicity committee.

As in the past, Plowville '55 will feature conservation practices on the farm, plowing and land judging contests, educational exhibits, and well-known speakers.

The Minnesota Association of Soil Conservation Districts and WCCO-radio are co-sponsors of Plowville '55 with the U. S. Soil Conservation Service and the University of Minnesota Agricultural Extension Service cooperating.

B-330-hbs

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Immediate Release

#### SPRING BLOOM IN MID-WINTER

Any householder can enjoy spring blossoms in mid-winter, according to Gustav Hard, extension horticulturist at the University of Minnesota.

The recipe is simple. Bring some branches of spring-blooming shrubs or trees indoors and put them in water. By the process of "forcing," buds can be brought out of their resting stage and made to bloom several months before they normally would, Dr. Hard says.

Branches of apple, cherry, plum, bush honeysuckle, pussywillow and bridal wreath can be forced successfully and will bloom indoors in about three weeks. Branches of horse chestnut, barberry, grape, oak, gray birch, red maple and willow will make attractive green arrangements.

Here are Dr. Hard's suggestions for forcing: Gather the branches on a sunny day, preferably when the temperature is above zero. Cut them back to the main stem and be careful not to ruin the shape of the shrub. Follow pruning rules when you cut the branches.

To improve the intake of water, crush stem ends with a hammer. Then plunge stems into a deep container of water and keep for a week or 10 days in the basement or on a porch where the temperature is about 45°F. Syringing the buds twice a day with water will hasten the forcing process. When the leaves are ready to emerge, take the branches into the living area.

Cutting a few branches each week from now until spring will give continuous bloom.

B-331-jbn

News Bureau  
University of Minnesota  
Institute of Agriculture  
St. Paul 1 Minnesota  
January 31 1955

To all counties  
For use week of  
February 7 or after

WEED CONTROL  
BOOKLET ISSUED  
BY UNIVERSITY

It may be a little early, with snowdrifts on the fields, to think about weed control, but you might like to know that a new weed control help developed by the University of Minnesota is available free at County Agent \_\_\_\_\_'s office.

It's Folder 191, "Cultural and Chemical Weed Control in Minnesota", written by four University weed control specialists.

The booklet gives tips on control of over a dozen different weeds. Canada Thistle and Sow Thistle control recommendations are to use either 2,4-D or cultural means--practices of plowing or cultivating every three or four weeks until freeze-up.

Cheapest control of quack grass is cultivation--if done at the right time and with the right kind of cultivator, according to the booklet. It recommends shearing off the roots in the spring when the weeds are two or three inches long. In summer, pull roots out with a spring tooth cultivator and let them dry in the sun.

Folder 191 gives recommendations on using TCA, Dalapon, sodium chlorate and CMU effectively on quack grass, too.

Another section gives practices used on different crops. Corn, small grains, soybeans and alfalfa and clover forages are just a few included, with weed control practices listed for each.

Weeds on roadsides can be controlled with 2,4-D, 2,4,5-T or ammonium sulfamate. The booklet has recommendations for foliage sprays, stump treatment sprays, or sprays for use during the growing period of the woody plants.

Other useful information in folder 191, is a description of the herbicides and chemical sprays and the calibration and adjustment of a farm sprayer. Folder 191 is free at the county agent's office or from the Bulletin Service, Institute of Agriculture, University of Minnesota, St. Paul 1.



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FILLERS for Your Column and Other Uses....

New Hog-Raising Booklet -- "Hog Health Makes Wealth" is the rhyming title of University of Minnesota Extension Bulletin 119. It was written by Henry G. Zavoral, University Extension livestock specialist and widely-known Minnesota hog authority. In it, Zav makes one startling statement: "Minnesota farmers are losing millions of dollars annually by raising pigs under unsanitary conditions. A third of the pigs farrowed die before they are weaned--another third are stunted and 'losers.' That leaves only a third that are profitably grown to maturity." The booklet has 16 pages and many illustrations to help farmers prevent such needless losses. Come in for your free copy.

\* \* \* \* \*

Output Increases -- Today's farmers are producing 38 per cent more products on about the same amount of land they farmed just 15 years ago. And this increase has been with an ever-lowering population of farm workers. In 1940, one farm worker could produce enough food for 11 people. Now, working shorter hours, he grows food for 18--a gain of 63 per cent in efficiency. We still have a long way to go in another field, however. That's the area of best possible soil use and efficient fertilizing.

\* \* \* \* \*

Farm Shop Safety -- Many think the real toll of farm deaths happens at harvest and in the summer. But some tragic accidents happen right around home this time of year, according to Glenn Prickett, Extension farm safety specialist at the University of Minnesota. The farm shop is one dangerous place, says he. Make sure carbon monoxide from running motors is safely channeled out into the open air. Garages do this safely with metal hoses that attach to the exhaust. Also, you can buy a non-flammable solvent for cutting grease off disassembled parts--and that's far, far safer than gasoline or tractor fuel.

\* \* \* \* \*

Infrared Lamps Pay for Themselves -- If you could save an average three more baby pigs from every two litters by using infrared lamps during and after farrowing, wouldn't you consider that wise? That saving is possible. And the lamps are very inexpensive--a dollar or so plus a few cents electricity a day.

-hrj-

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To all counties

ATT: HOME AGENTS  
For publication week of  
February 7

EGGS CONTINUE  
PLENTIFUL

Eggs, canned corn and canned snap beans lead the list of plentiful foods for February, reports Home Agent \_\_\_\_\_.

The monthly plentiful foods list is prepared by the U. S. Department of Agriculture to inform consumers of food items which will be good buys.

Egg prices continue low because of the record high rate at which the nation's 400 million hens are laying. At present prices, the average family's income will buy more eggs than at any time in history.

For two years in a row, the canners of sweet corn and snap beans have packed at least a million cans more than the American people usually eat, according to the Department of Agriculture. This has resulted in unusually large stocks in warehouses, and general reductions in price for most brands.

Citrus fruits, both fresh and processed, are at the peak of their season, and there is a record crop of oranges being harvested in Florida.

Heavy turkeys out of last fall's record turkey production, frozen fillets of haddock, frozen halibut, canned tuna and several types of dry beans provide low-cost protein for winter meals.

Lettuce and carrots from the West and Southwest are expected to come to market in large volume in February. Raisins and almonds, out of last fall's harvest, will still be plentiful, as will rice from the Southern states.

Lard will be plentiful, from the large number of heavy hogs marketed in the Midwest. The record crop of soybeans and a big crop of cottonseed will make vegetable fats and oils abundant.

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HOW ABOUT SOUP  
FOR BREAKFAST?

\_\_\_\_\_ county mothers who are concerned about the meager breakfasts their young school children eat may be interested in a new trend which may help to solve their problem, comments Home Agent \_\_\_\_\_.

The trend is to make the hearty breakfast dish a nourishing milk soup.

Many children like soup, and since it is hot and tasty, it has a pick-up value far beyond its actual nutrient content, according to Ina Rowe, extension nutritionist at the University of Minnesota. A hot soup is filling and satisfying and "stays with" the youngsters better than the same ingredients would in cold form.

However, a hot soup does not take the place of a breakfast fruit. If the children will accept hot cereal and milk or toast with ham or bacon and eggs, in addition to fruit, there would probably be no nutritional advantage in changing to soup. But many children will not take time to eat these breakfasts, yet would accept a bowl of soup. It is for the non-breakfast eaters particularly that soup might be a worthy addition.

As an appetizing soup Miss Rowe suggests Cream of Potato, made with potatoes, some other seasoning vegetable such as onions, celery or carrots, plus plenty of milk. For variety this soup may be seasoned with bacon cut into small bits and cooked until crisp. This type of soup can be made in large quantities and kept in the refrigerator for a day or two, reheating as much as is required for breakfast. It is a time saver for both the cook and the members of the family, since it can be put on the table in very short order and eaten quickly.

Many other types of soup will also fill the bill for breakfast, Miss Rowe says. She recommends the idea as worthy of consideration.

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

FEEDERS COMPARE  
HAY AND CORN  
SILAGE VALUE

Groups of feeding lambs gained at about the same rate and cost per pound of gain on alfalfa hay or corn silage as their only roughage in a 70-day western Minnesota experiment.

County Agent \_\_\_\_\_ reports the research took place at the University of Minnesota's West Central School and Experiment Station at Morris from November 3, 1954, to January 12, 1955. It was reported at the annual Morris Lamb Feeders' Day recently.

P. S. Jordan, associate professor of animal husbandry, H. G. Croom, School principal, both of Morris, and Robert M. Jordan, associate professor of animal husbandry at the University of Minnesota, reported the results.

The tests indicate that corn silage is a good feed and can be fed fattening lambs as their only roughage. However, although corn silage-fed lambs gained as fast and as economically, they didn't rate as high a carcass grade and were evaluated at 25¢ per 100 pounds less than the lambs fed alfalfa hay as their roughage.

Lambs fed alfalfa hay each ate about 1.5 pounds per day and those fed corn silage about 2.3 pounds per day. For test purposes, the Morris feeders figured alfalfa hay at \$16 a ton and corn silage at \$6 a ton.

The amount of concentrate -- shelled corn and soybean oil meal -- the alfalfa hay-fed lambs ate was about the same as the corn silage-fed lambs put away.

The researchers say these results indicate that the feeder who can produce good corn silage efficiently will find it a profitable roughage for fattening lambs.

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#### FREE SHEEP SHEARING SCHOOLS OFFERED

Two free sheep shearing schools will be conducted this month--one at the Hormel Sheep Ranch, Austin, on February 14 and 15, and the second at the Livestock Pavilion, North Central School and Experiment Station, Grand Rapids, on February 17 and 18. The schools are open to 4-H and FFA members and rural adults.

Announcement comes from W. E. Morris, extension livestock specialist at the University of Minnesota's Institute of Agriculture.

A nationally-known shearing instructor, Ed Warner of the Sunbeam corporation, Chicago, will be in charge.

Those attending the free schools will have an opportunity to shear several sheep with expert instructors looking on and giving pointers. Warner also will demonstrate proper shearing with a live sheep.

According to Morris, those planning to enroll in the school should plan on attending both days. This will give them the most benefit from the expert instruction.

Both schools will begin at 9 a.m. Complete information is available from county agents in Austin and Grand Rapids.

B-332-hrj

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#### 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:

Sparkling Red Cherry Pie  
Rendering Lard at Home  
Lard Has High Shortening Power  
Lard Promotes Healthy Skin

Does Waffle Iron Stick?  
Time to Check Pressure Cooker  
Warm Start  
Care in Laundering Rugs

#### FREEZING FOODS

##### Sparkling Red Cherry Pie

Cherry pie is one of February's favorite desserts. If you're making some cherry pies and freezing them for later this month, here are some suggestions to remember.

Tests in the University of Minnesota frozen foods laboratory show that for bright, clear filling in frozen cherry pies, it's better to use tapioca or corn-starch than flour for thickening. Flour tends to make the frozen filling cloudy.

Before serving pies which have been baked before freezing, thaw them in the wrapping for half an hour, then unwrap and heat in a 325° oven for half an hour.

Fruit pies that are frozen unbaked will be best if they are baked at 450°F. for 10 to 15 minutes, then at 375°F. for the remainder of the time. The frozen pies will, of course, take longer to bake than fresh pies.

A dull aluminum pie pan gives especially good results with frozen pies.

-jbn-

FOODS AND NUTRITIONRendering Lard at Home

During the hog slaughtering season it's customary for many families to have the fatty tissue ground at the locker plant, then to render the lard at home.

Some homemakers follow the practice of freezing the fatty tissue and rendering the lard when it's convenient. According to Ina Rowe, extension nutritionist at the University of Minnesota, a much better plan is to render the lard immediately upon getting the fatty tissue from the locker plant. Then store the lard in the freezer. The advantages are a better quality lard and saving of storage space.

It's always advisable to make sure you get the fatty tissue from your own hogs back from the locker plant rather than to get an equivalent weight of lard material from miscellaneous sources.

\* \* \* \* \*

Lard Has High Shortening Power

Lard is one of the plentiful February foods. If you don't have your own rendered lard, you'll find it an excellent buy in your market.

Because of its high shortening power, lard is a popular fat for pastry. If your recipe calls for one of the commercial hydrogenated fats such as a vegetable shortening, you can use an equivalent amount of lard and get a richer pie crust. That's because lard has greater shortening value than any of the hydrogenated vegetable shortenings. The standard measurement for pie crust is one part lard to three parts flour.

\* \* \* \* \*

Lard Promotes Healthy Skin

Did you know that lard contains certain elements that promote healthy skin? So potent is lard in its contribution to skin health that it has been used in hospitals in the treatment of infant eczema. The lard is actually given as part of the baby's food when the baby's skin condition indicates that the food essentials found in lard are otherwise lacking in the baby's diet. Shortage of this vital element is most frequently found in premature babies.

EQUIPMENTDoes Waffle Iron Stick?

Have you ever had trouble with your waffle iron sticking? It's the kind of thing that's likely to happen when we have guests!

Normally, brushing the grids with unsalted fat or vegetable oil and allowing the iron to heat will correct the condition. But not always. When it does not, the reason may be that the wax on the grids has probably worn or melted off and the grids need a rewaxing with a carnauba wax.

If you can't get a carnauba wax, one manufacturer has this suggestion: Heat the waffle baker and lay some waxed paper between the grids. Then allow the waffle baker to cool. This process applies wax to the grids and works wonderfully.

Be sure not to clean your waffle iron with an abrasive. Simply wipe it off with a paper napkin and store with a paper napkin between the grids.

\* \* \* \* \*

Time to Check Pressure Cooker

(NOTE TO AGENT: USE THIS ITEM ONLY IF YOU DO NOT INTEND TO HOLD YOUR OWN PRESSURE COOKER CLINICS)

Before you know it, the canning season will be here. So it's not a bit too early to get your pressure cooker in good condition. You should have the pressure gauge and safety valve tested, all parts cleaned, and broken or missing parts replaced.

The state bacteriologist, Dr. G. A. Vacha, has consented to test gauges and safety valves as a service to the people in Minnesota. However, parts to be tested should be sent to him not later than May 15.

Observe these directions carefully: Remove the pressure gauge and safety valve taking out the entire assembly. Wrap carefully. Insure the package and prepay the postage. Enclose stamps for return postage and insurance. Be sure to write your

name and address plainly. Send to: Dr. G. A. Vacha  
State Department of Agriculture, Dairy and Food  
State Office Building  
St. Paul 1, Minnesota



HOME MANAGEMENTWARM START

Most people know that a cold motor starts hard. But not everyone knows that this slow, difficult start may be a strain on the motor or may cause wear on the mechanism.

Good cold-weather care of any motor-driven household appliance calls for keeping the appliance where the temperature is not too low, or bringing it into a warm place to take the chill off the grease or oil before using.

For the sake of the motor, the home freezer or refrigerator should not be placed where the temperature may go below 40 degrees F., unless it is especially equipped to operate at low temperatures. If the washing machine is kept on the back porch, it should be brought into a warm room a few hours before running.

Sewing machines, vacuum cleaners, electric mixers or any other motor-driven appliances, large or small, deserve a warm-up before using, if they are kept where it is cold. The lubricant -- whether grease or oil -- should be warm enough to do its job before the motor is started

\* \* \* \* \*

Care In Laundering Cotton Rugs

Washable cotton rugs may present some problems in laundering - particularly if they are dark colored. Since some of them are not color fast, be sure to wash the white and light-colored rugs separately from the dark ones.

When you tumble a rubber-backed rug in your drier, take precautions to prevent spontaneous combustion. Sometimes rubber contains traces of copper and manganese which may generate heat and cause the rug to ignite. For that reason, it's well, as soon as the rugs are dried, to take them from the drier and open them up so they will cool quickly. Don't store them hot.

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SPECIAL TO ALL NEWSPAPERS IN  
Norman, Kittson, Yellow Medicine, Lincoln,  
Lac qui Parle, Clay, Grant, Marshall,  
West Polk, Traverse, Stevens, Wilkin

File

NOTE TO EDITORS: We hope the enclosed mat will meet your requirements. If not, you may wish to trim it and rearrange the pictures to fit your needs.

#### 4-H CLUB MEMBERS WIN GRAIN MARKETING TRIP

Five Minnesota 4-H club members have won three-day all-expense trips to tour Twin Cities grain markets and plants on February 15-16-17.

Basis of their award is outstanding work in 4-H grain projects and a good record in other club activities.

According to Leonard Harkness, state 4-H club leader at the University of Minnesota's Institute of Agriculture, the five will learn how grain is graded, sold and processed into food and how grain production and marketing fit into Minnesota agriculture.

The five are Thomas Skalsky, Ada, Norman County; Ralph Nordine, Lancaster, Kittson County; Stan Blasey, Ada, Norman County; Richard Rosetter, Granite Falls, Yellow Medicine County and Glen Krog, Lake Benton, Lincoln County.

Accompanying the group will be Norman County Agent Harold Rosendahl of Ada. Atwood-Larson Company, Minneapolis commission grain merchants, are hosts for the trip.

-hrj-

FILE.

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February 1, 1955

SPECIAL TO:  
Minneapolis Star and Tribune,  
Margaret Morris  
St. Paul Pioneer Press, Dispatch, Amy  
Immediate Release Birdsall

#### HOME CLUB TO VISIT ST. PAUL CAMPUS

Members of the Home Club, wives of Minnesota legislators, will visit the St. Paul campus of the University of Minnesota on Thursday, February 3.

Dr. Harold Macy, dean of the Institute of Agriculture, and Dr. Louise Stedman, director of the School of Home Economics, will welcome the group at a special program in the home economics building.

The morning program will include talks by members of the home economics staff on home management and family relations, new equipment, new textiles and ideas for home decorating.

At a noon luncheon in the party dining room on the campus Home club members will hear talks on ornaments for Minnesota gardens by members of the horticulture department.

Scheduled on the afternoon program are talks by Dorothy Cimmons, state leader of the extension home program and W. T. S. Thorp, assistant dean and director of the School of Veterinary Medicine, a tour of the St. Paul campus and a visit to the University creamery where the group will get a preview of new dairy products.

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SPECIAL TO WILCOX  
County Agent Introduction

O. E. Daellenbach, new Clay county agent at Moorhead, sitting at the right, has the year's program well mapped out. You can tell by that big smile on District Supervisor Frank Forbes' face that he's mighty happy that Daellenbach is returning to the extension service. Daellenbach has been in the farm implement business for the past four years in Ada. When he took the position in Clay county he said, "The business is successful and I like it, but my heart has always been in extension work." Daellenbach has a varied background. He taught agriculture in the Ulen schools and served as Norman County Agent from 1944 to 1950.

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*Special*

Grand Rapids Herald-Review

CAPTION FOR MAT

Balance and leverage -- not brute strength -- is one secret to rapid, successful sheep shearing. Ed Warner, national known shearing instructor with the Sunbeam Corporation, Chicago, demonstrates the "key" to one of the basic shearing positions. Feet and legs placed properly keeps sheep comfortable and prevents struggling.

4-H'ers, FFA members and rural adults will have an opportunity to watch Warner in action and take instruction from him in shearing live sheep at a Sheep Shearing School to be held at the North Central School and Experiment Station, Grand Rapids, Thursday and Friday, February 17-18. The school is free and is held in cooperation with the University of Minnesota's Agricultural Extension Service. W. E. Morris, University Extension livestock specialist, St. Paul, will assist at the school. Complete information is available from county agents' offices in the northern Minnesota area.

-hrj-

News Bureau  
University of Minnesota  
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Special to Houston County  
(with mat)

NEW HOME AGENT  
TO BEGIN WORK  
FEBRUARY 7

Houston county's new home agent, Patricia Ann Hutton, Harmony, has a background of eight years of experience as a 4-H club member.

Miss Hutton will assume her duties on February 7, with headquarters in the county extension office in Caledonia. She has been serving as assistant home agent in Winona county since January 24.

For eight years Miss Hutton was a 4-H member in Fillmore county, taking home economics and livestock projects and such activities as junior leadership, conservation, health and safety. She has taken part in 4-H demonstrations and the dress revue at the State Fair and was a delegate to State 4-H Club Week. As a club member she also took part in play and music contests.

A graduate of the University of Minnesota, Miss Hutton received her bachelor of science degree in December, with a major in home economics. At the University she was a member of the Home Economics association, Gamma Omicron Beta sorority and the Women's Athletic association.

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#### ALFALFA BLENDS ARE NOT IMPROVED VARIETIES

Minnesota farmers should not confuse blends of alfalfa seed being sold as trade brands with certified seed of the improved varieties, Rodney A. Briggs, extension agronomist at the University of Minnesota, said today.

He pointed out that several companies are advertising and selling blends of alfalfa seed. Inquiries sent to the University agronomists indicate that many people believe these blends are new alfalfa varieties.

None of the companies has advertised the blends as substitutes for the improved varieties and they should not be considered as such, Briggs points out.

None of the blends has been available to the University agronomists for performance trials. Briggs explains there is little purpose in testing blends of alfalfa for comparison with improved varieties because the origin of the seed in the blends may vary from one lot to another and its performance thus might not be consistent.

Quality factors such as germination and purity in the blends have been stressed in advertisements. Briggs pointed out, however, that seed quality means "different things to different people." To some, seed quality means good germination, freedom from weeds and freedom from mixtures. These are important, says Briggs--but even more important in seed quality is superior disease resistance, high yield and other traits bred into and inherited by the variety.

Purity and germination can be determined in the laboratory from the seed, but the qualities that make for superior yield, hardiness, and disease resistance can only be determined from the pedigree of the seed, Briggs said.

The grower's best assurance of the seed pedigree is certification. Buying certified seed of recommended varieties, farmers can be sure of obtaining varieties that have given superior performance in the University's carefully conducted variety trials.

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Immediate Release

## TWO NEW 'MUMS INTRODUCED BY U

Two new outdoor chrysanthemums--one a light lavender, the other a deep red-- have been developed by the University of Minnesota department of horticulture and are being introduced to home gardeners this year.

They have been named Wenonah (Minn. No. 48-85-69) and Vulcan (Minn. No. 50-125-2).

With the introduction of these two chrysanthemums, the University department of horticulture has achieved the record of developing 30 varieties of chrysanthemums especially for northern climates.

Though chrysanthemums have been growing in gardens throughout the country for a long time, they are comparative newcomers to northern regions, since autumn frosts usually killed the buds before they started blooming. The University of Minnesota has played a major role in making chrysanthemums a popular plant in northern gardens through development of early flowering varieties with high-quality blooms and by stimulating similar research on the part of other institutions and private plant breeders.

The late Dr. L. E. Longley, who began the University's chrysanthemum breeding work in 1936, was a pioneer in the development of satisfactory varieties that flowered early enough for northern gardens. Now emphasis in the University's chrysanthemum breeding program is being placed on hardiness, new colors, larger blooms and more varieties of the cushion type.

Among the most popular of the Minnesota 'mums are the purple Chippewa, dark yellow Butterball, pink Dr. Longley, Purple Star, white Dee Dee Ahrens, white Glacier, Redgold and Violet.

A description of the two newest Minnesota 'mums follows:

Wenonah is a medium-tall plant bearing light lavender double blooms which average  $2\frac{1}{4}$  inches in diameter. Plant spread is about 15 inches. It is the earliest of the University of Minnesota line of chrysanthemums. Blossoming starts in early August and continues uninterrupted until hard frost kills all blooms. A characteristic of Wenonah is its ability to survive adverse weather conditions such as high temperatures, wind and rain.

Vulcan has dark red double flowers  $2\frac{1}{2}$  to  $2\frac{3}{4}$  inches in diameter. In full sun the plants reach a height of  $1\frac{1}{2}$  feet and a spread of 2 feet. Flowering begins in mid-August and continues until heavy frost. Flowers are well adapted to cutting.

The two new varieties have done well in tests throughout the state. Plants will be available from Minnesota nurseries and florists this spring. B-334-jbn



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#### DISTRICT RADIO SPEAKING CONTESTS ANNOUNCED

District contests in the annual statewide 4-H radio speaking competition will be held this month, Evelyn Harne, state 4-H club agent at the University of Minnesota, announced today.

County champions will compete in the 16 district events which will be held as actual radio broadcasts between February 18 and February 28.

The University of Minnesota Agricultural Extension Service and the Minnesota Jewish Council are sponsoring the speaking event for the thirteenth year. Subject of this year's contest is "What Are My Opportunities and Responsibilities Under Freedom?"

Nearly every county in Minnesota will be represented in the district competitions, Miss Harne said. Last year more than 800 4-H and Rural Youth members competed in county, district and state contests.

Broadcasts of district contests are scheduled as follows: February 18, 2:30-3 p.m., KOZY, Grand Rapids; February 19, 10:30-11 a.m., WEBC, Duluth, 3-3:45 p.m., KYSM, Mankato, 4-4:45 p.m., KWCA, Worthington; February 21, 1:45-3 p.m., KILQ, Crookston; February 24, 2:30-3 p.m., KVOX, Moorhead; February 25, 4:05-5 p.m., KWLM, Willmar, 3-4 p.m., KGDE, Fergus Falls, 3-4 p.m., KWAD, Wadena, 3-4 p.m., WJON, St. Cloud; February 26, 10-11 a.m., KMHL, Marshall, 1-1:45 p.m., KROC, Rochester, 1-2 p.m., KDHL, Faribault, 2-3 p.m., KATE, Albert Lea, 5-5:45 p.m., WPBC, Minneapolis; February 28, 12-12:15 p.m., and 12:30-1 p.m., KUOM, University of Minnesota, St. Paul campus.

The Jewish Council is providing more than \$2,000 for awards to county, district and state winners and for transportation, hotel accommodations and a banquet for all 4-H members participating in the contest. District winners will be awarded prizes of \$15 and an all-expense trip to the Twin Cities to compete in the state finals to be held March 12.

B-335-jbn

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#### SOILS RESEARCH ASSOCIATE JOINS STAFF

George R. Blake, a soil physicist, has joined the University of Minnesota's staff as a research associate.

Announcement of Blake's appointment comes from Dean Harold Macy of the University's Institute of Agriculture. Blake comes to Minnesota from Rutgers University, New Brunswick, New Jersey, where he was an associate professor of soil physics and active in research in that field.

Born in Provo, Utah, he was graduated "with honors" from Brigham Young University in 1943 and earned his Doctor of Philosophy Degree at Ohio State University in 1949.

According to William P. Martin, head of the University's soils department, Blake will devote full time to research in soil physics, a new area of study in Minnesota.

He has spent the past five years at Rutgers and is author of several publications. Soil physics involves the study of the physical properties of soil--that is, how soil structure or tilth is related to moisture, aeration, microbial activity, plant food availability and cropping practices.

Research in this field will help soil specialists and farmers understand and modify their tillage, drainage, irrigation, and erosion control practices on the many soil types found in Minnesota, Martin said.

Blake is 37, is married and has four children, ranging in age from two to 12.

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St. Paul 1, Minnesota  
February 2, 1955

Immediate Release

#### STATE WINNERS IN 4-H PIG, SHEEP CONTESTS

Robert Deters, Caledonia, and Freddy Eisinger, Long Lake, have been named state champions in two 4-H livestock contests, Leonard Harkness, state 4-H club leader at the University of Minnesota, has announced.

Deters is state winner in the ten-ewe contest and Eisinger is state champion in the ton-litter project.

The Houston county 4-H member raised 17 lambs from his 10 Shropshire ewes. Total weight of his lambs at the end of 135 days was 1,442 pounds or an average of 144.2 pounds of lamb per ewe. Each ewe produced an average of 12 pounds of wool.

Runner-up in the ten-ewe contest was Nick Luhman, Goodhue, who raised 16 Columbia lambs to a total of 1,346 pounds in 135 days, an average of 134.6 pounds per ewe, in addition to an average of 13.8 pounds of wool per ewe.

Objective of the ten-ewe project is to produce maximum yields of lamb and wool in the 135-day period.

Eisinger received top placing in the ton-litter contest by raising a litter of 13 Yorkshire crossbred pigs to a weight of 3,168 pounds in 165 days, or an average of 243.69 pounds per pig.

Second-place winner in the ton-litter contest was Harvey Hesse, Janesville.

Goal of the project is to produce at least 2,000 pounds of pork from one litter in 165 days.

The Minnesota Livestock Breeders' association provides cash awards to state and county winners in both contests.

B-337-jbn

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
February 2, 1955

Immediate Release

#### U. AGRICULTURAL ECONOMIST GIVES 1954 INCOME REPORT

Minnesota's farmers received \$1,280,000,000 from cash receipts of farm products in 1954--slightly less than in 1953.

According to Rex W. Cox, associate professor of agricultural economics writing in the current issue of the University of Minnesota's Farm Business notes, receipts from sales of crops, hogs and cattle were higher than in 1953, but sales of dairy products, eggs and chickens were much lower.

The increase in receipts from crops came from more marketing. Prices averaged about six per cent lower, however, and dropped the most during first-half 1954. Here, by classes, is the rest of the picture:

**HOGS---**Total weight of hogs marketed by Minnesota farmers last year was slightly over 1953. Prices averaged three per cent higher because of high prices in first-half 1954. As a result, 1954's cash hog receipts were above 1953's.

**CATTLE AND SHEEP---**Many more cattle and calves were sent to market in 1954. Cattle prices averaged three per cent lower, but calf prices nine per cent. Gross returns from cattle and calf sales increased about five per cent over 1953. Returns from sheep and lambs were slightly less, however.

**FLUID MILK---**Almost 14 per cent more fluid milk was sold in 1954. Prices averaged \$3.13 per 100 pounds, 30 cents less than in 1953. Total receipts: \$168 million, compared with \$177 million in 1953. Five per cent less butterfat in cream was sold than in 1953--92 million pounds. Prices averaged 6¢--8¢ lower than in 1953. Total wholesale cream sales were \$59, compared with \$72 million in 1953. Total milk and cream sales, wholesale and retail, were \$232 million--nearly nine per cent less than in 1953.

**EGGS---**Farmers sold seven per cent more eggs in 1954, but at lower prices. Sales in 1954 were \$95 million compared to 1953's \$123 million. Chicken sales also lower.

**TURKEYS---**The record 1954 turkey crop was 35 per cent above 1953, due mainly to a 61 per cent increase in the light types, which were 50 per cent of the total crop. In 1952, light types amounted to only 41 per cent of the crop.

Although average prices were about 6¢ a pound less, large marketings increased cash returns slightly. Cash livestock sales were nearly two-fifths of the total farm receipts. Dairy and other livestock products were about 18 and 12 per cent, respectively, of that total.

B-338-hrj

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
February 2, 1955

Immediate Release

#### HONEYBEES FOUND EFFECTIVE IN RED CLOVER SEED GROWING

University of Minnesota research begun in 1953 in northern Minnesota finds that honeybee colonies placed near the fields can help boost red clover seed yields up to a healthy 500 pounds per acre--nine times as much as many seed growers get today.

Minnesota's legume seed growing industry has been plagued by low yields for several years. The problem was tackled recently by a University team of entomologists, soils specialists, plant pathologists and agronomists.

Entomologists Allan G. Peterson and Fred G. Holdaway report their red clover experiments near Bagley show bumblebees are more efficient pollinators than honeybees, but bumblebees can't be depended on because their populations vary so widely from year to year.

The research, still in progress, has also found the Lygus bug the most important damager of red clover seed crops. They studied damage by such insects as the Lygus bug, the rapid plant bug, alfalfa plant bug, clover seed midge, clover seed chalcid, lesser clover leaf weevil and the pea aphid.

The clover seed midge caused heavy damage in 1953, but not in 1954. The others are minor, Peterson said.

The University scientists also found they could effectively control plant bugs by one application of insecticide during the red clover bud stage. They found  $1\frac{1}{2}$  pounds actual DDT per acre or two pounds actual toxaphene per acre will check Lygus bugs.

How important were honeybees and bumblebees to pollinating? In two fields which had honeybee colonies nearby, about 90 per cent of the pollinating insects were honeybees. In two other fields about a mile away from colonies, 62 to 75 per cent of the pollinators were honeybees.

But in a fifth field three miles from colonies, only four per cent of the pollinators were honeybees. These fields had far lower yields than those with honeybees nearby.

Thus, says Holdaway, red clover seed yields may be increased considerably, at least in some areas of Minnesota, by locating honeybee colonies near the fields.

B-339-hrj

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
February 2, 1955

Immediate Release

#### FEW MINNESOTA FARM WOODLOTS YIELD ANNUAL INCOME

Probably less than 10 per cent of Minnesota's farmers who have woodlots receive any cash income from selling forest products in any one year. In 1949, only 7.8 per cent of the 90,988 farms in the state with woodlots sold forest products.

This was revealed by a re-analysis of 1949 agricultural census data at the School of Forestry of the University of Minnesota's Institute of Agriculture. Results of the analysis were published this week in a Minnesota Forestry Note by Richard A. Skok, research assistant in forestry, and Otis F. Hall, assistant professor of forestry.

Greater importance of forest products in the northeastern part of the state than elsewhere is shown clearly. Sixty-one per cent of the total Minnesota farm income from forest products went to farmers in the thirteen northeastern counties. In this area, 19 per cent--nearly a fifth of the farms with woodlots--sold products in 1949, compared to the state average of 7.8 per cent.

Total cash income farmers in the state received from wood products sales in 1949 was \$2,117,364. This amount was divided among 7,097 farms for an average wood products sale income of \$298 per farm.

Skok and Hall say these figures suggest that if farmers manage their woodlots better for production of saleable products and if they keep well informed on market outlets, a considerable increase in farm income is possible from this source.

Copies of the Minnesota Forestry Note which contains the analysis are available free from the School of Forestry, University of Minnesota, St. Paul 1.

FILE.

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
February 2, 1955

SPECIAL TO: Ceylon Herald  
Fairmont Sentinel  
Sherburn Advance-Standard  
Triumph-Monterey Progress  
Truman Tribune  
Welcome Times  
KSLM, Fairmont  
The Commercial West  
603 2nd Avenue South, Mpls.  
Maynard Speece, WCC-Radio  
625 2nd Avenue South, Mpls.

**SCHOLARSHIP WINNER PLACES HIGH AT U. OF M.**

The Martin County Bankers' Scholarship winner, eighteen year old Gail Suter of Fairmont, is proving "a good investment" at the University of Minnesota's School of Agriculture in St. Paul.

The report comes from J. O. Christensen, superintendent of the School of Agriculture.

Gail, who entered the School last fall under a Martin County Bankers' scholarship, was named high individual crops judge in the Midwest Crops Judging Contest on Jan. 20. He won a monogrammed leather brief case, given by the Minneapolis Grain Exchange, one of the contest sponsors.

The Minnesota team came out first in the event and Gail is one of its members. The University's School of Agriculture each year fields a team that competes with three similar schools—South Dakota State College's School of Agriculture at Brookings, the University of Illinois School of Agriculture at Urbana, and the Dunn County School of Agriculture at Menomonie, Wisconsin. This year's contest was held on the University's St. Paul campus.

The other two Minnesota team members were second and third high individuals of the contest. They are Jerome Gernes, ~~Minnetonka~~, and Lawrence Bjorness, ~~Maplewood~~. Alternates are James Stangler, ~~Kilkenny~~, and Philip Toedter, ~~Stables~~.

(more)

Gail started his honor-winning streak last fall, when on December 1st-- Parents' and Visitors' Day at the School of Agriculture in St. Paul--he was named champion sheep shornman.

This is the first year the Martin county Bankers' association has joined the sponsorship plan under which 36 Minnesota county bankers' associations send promising young rural people to the School of Agriculture on the St. Paul Campus for after-high school vocational and leadership training in farming, home-making, practical nursing and food technical work.



*File*

*Information*

COOPERATIVE EXTENSION WORK  
IN  
AGRICULTURE AND HOME ECONOMICS  
STATE OF MINNESOTA

University of Minnesota  
U. S. Department of Agriculture  
County Extension Services  
Cooperating

Agricultural Extension Service  
Institute of Agriculture  
St. Paul 1 Minnesota  
February 2 1955

TO: County Agricultural Agents

Enclosed for your information is a copy of a news story we released statewide on Tuesday, February 1. Please feel free to incorporate sections of it in your column or to use the facts as a "lead" in any story or radio presentation you might wish to develop on the subject of careful seed buying.

*Harry R. Johnson*

Harry R. Johnson  
Extension Information Specialist

HRJ:ms

Enc.

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
February 1, 1955

Immediate Release

#### ALFALFA BLENDS ARE NOT IMPROVED VARIETIES

Minnesota farmers should not confuse blends of alfalfa seed being sold as trade brands with certified seed of the improved varieties, Rodney A. Briggs, extension agronomist at the University of Minnesota, said today.

He pointed out that several companies are advertising and selling blends of alfalfa seed. Inquiries sent to the University agronomists indicate that many people believe these blends are new alfalfa varieties.

None of the companies has advertised the blends as substitutes for the improved varieties and they should not be considered as such, Briggs points out.

None of the blends has been available to the University agronomists for performance trials. Briggs explains there is little purpose in testing blends of alfalfa for comparison with improved varieties because the origin of the seed in the blends may vary from one lot to another and its performance thus might not be consistent.

Quality factors such as germination and purity in the blends have been stressed in advertisements. Briggs pointed out, however, that seed quality means "different things to different people." To some, seed quality means good germination, freedom from weeds and freedom from mixtures. These are important, says Briggs--but even more important in seed quality is superior disease resistance, high yield and other traits bred into and inherited by the variety.

Purity and germination can be determined in the laboratory from the seed, but the qualities that make for superior yield, hardiness, and disease resistance can only be determined from the pedigree of the seed, Briggs said.

The grower's best assurance of the seed pedigree is certification. Buying certified seed of recommended varieties, farmers can be sure of obtaining varieties that have given superior performance in the University's carefully conducted variety trials.

B-333-hrj

File

Johnson - Info

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 Minnesota  
February 3 1955

SPECIAL TO WEEKLY NEWSPAPERS IN FOLLOWING  
COUNTIES:

Houston, Fillmore, Winona, Wabasha,  
Olmsted, Dodge, Mower, Freeborn, Faribault,  
Martin, Blue Earth, Waseca, LeSueur, Rice,  
Scott, Dakota, Goodhue, Steele

FREE SHEEP  
SHEARING SCHOOL  
ON FEB. 14-15

Southern Minnesota 4-H club and FFA members and rural adults who want to learn sheep-shearing under expert instruction will have their chance soon.

A free two-day sheep-shearing school will be held Monday and Tuesday, February 14-15 at the Hormel Sheep Ranch at Austin. A nationally-known shearing instructor, Ed Warner, will be in charge.

Those attending the free school will have an opportunity to shear several sheep with expert instructors looking on and giving pointers on good shearing. Warner will also demonstrate proper shearing of a live sheep.

According to W. E. Morris, Extension livestock specialist from the University of Minnesota, those planning to enroll in the school should plan on attending both days. They may thus get the most benefit out of the expert instruction offered.

The school begins at 9 a.m. More complete information is available from the county agent at Austin.

-jbn-

File

Johnson - Info

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1 Minnesota  
February 3 1955

SPECIAL TO WEEKLY NEWSPAPERS IN:  
Itasca, Koochiching, St. Louis, Lake,  
Carlton, Pine, Mille Lacs, Aitkin,  
Crow Wing, Cass, Hubbard, Beltrami,  
Lake of Woods, Wadena, Todd, Stearns,  
Benton, Sherburne, Isanti, Chisago and  
Anoka counties

FREE SHEEP  
SHEARING SCHOOL  
ON FEB. 17-18

Northern Minnesota 4-H club and FFA members and rural adults who want to learn sheep-shearing under expert instruction will have their chance soon.

A free two-day sheep shearing school will be held Thursday and Friday, February 17-18 at the Livestock Pavilion of the North Central School and Experiment Station at Grand Rapids.

A nationally-known shearing instructor, Ed Warner, will be in charge.

Those attending the free school will have an opportunity to shear several sheep with expert instructors looking on and giving pointers on good shearing. Warner also will demonstrate the proper shearing of a live sheep.

According to W. E. Morris, Extension livestock specialist at the University of Minnesota, those planning to enroll in the school should plan on attending both days. They may thus get the most benefit out of the expert instruction offered.

The school begins at 9 a.m. More complete information is available from the county agent at Grand Rapids.

-jbn-

File

SPECIAL TO MINNESOTA WEEKLY NEWSPAPERS

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
February 3, 1955

AG. CREDIT  
CONFERENCE AT  
U. NEXT WEEK

Minnesota's rural bankers, who come face to face each day with problems of agricultural finance in their communities, will meet next week on the University of Minnesota's St. Paul Campus.

Occasion is the Third Annual Bankers' Agricultural Credit Conference, Thursday and Friday, Feb. 17-18, open to all Minnesota bankers.

It is given in cooperation with the Minnesota Bankers' Association.

Chairman of the program committee is O. B. Jesness, head of the University's agricultural economics department.

Thursday program speakers include E. Fred Koller, professor of Agricultural economics, who will give the dairy outlook; Harold C. Pederson, extension marketing specialist, who will give the livestock outlook; a discussion of cash grain crops by George Wilkins, secretary, Minneapolis Grain Exchange, and Frank Higgins, a former exchange president and now president of Frank H. Higgins Co.; "As the Bank's Agricultural Representative Sees It," by Elvin Thue, of the Worthington National Bank; and "As The Bank Sees It," by R. F. Lichty, president, First National Bank, Austin.

Friday morning, W. L. Cavert, director of research for Farm Credit Administration, St. Paul, will speak on how modern farming changes credit needs and Reynold P. Dahl, assistant professor of agricultural economics, will discuss farm machinery loans.

Friday afternoon's program includes discussions on installment loans, financing dealers, property improvements, personal loans and small business loans by small banks.

Complete information on the course is available from the Short Course Office, Institute of Agriculture, University of Minnesota, St. Paul 1.

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University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
February 3, 1955

Immediate Release

#### HOME ACCIDENTS DECREASING

Accidents in Minnesota homes last year caused injuries to well over 50,000 people--or the equivalent of the combined populations of Rochester and Winona.

However, the number of deaths from injuries in the home has decreased for the fifth successive year, according to Glenn Prickett, extension safety specialist at the University of Minnesota.

Provisional figures for 1954 show that there were 537 deaths from home accidents in Minnesota in 1954 as compared with 568 in 1953. The number of fatal home accidents has declined about 300 since 1949, when there were 840 fatalities.

Prickett praised homemakers for the important part they have played in reducing the home accident toll. At the same time he pointed out that there is still much to be done in the way of removing hazards if the home is to be made safe for every member of the family.

Falls are still the number one cause of fatal home accidents, especially among older people, according to Prickett. Fire and explosions rate second in causing home accidents, except in farm homes where firearms are the number two hazard.

The University safety specialist gives some precautions families can take to reduce falls, the number one killer in Minnesota homes:

- See that stairways are adequately lighted and kept clear of boxes, toys, mops, brooms and tools.
- Eliminate such stairway hazards as weak hand rails, loose rugs at top or bottom, worn treads or carpeting, and ice on outside steps.
- Paint the bottom basement step white.
- Refrain from the dangerous personal practice of running up and down stairs and carrying objects which obstruct the view.
- Wipe up promptly any grease or spilled water on the kitchen floor.
- Anchor or skid-proof all scatter rugs.
- Use a sturdy step stool instead of makeshift climbing aids such as boxes stacked on chairs.

B-341-jbn

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
February 3, 1955

Immediate Release

#### UNIVERSITY PROVES WOOD PRESERVATIVE SAFE FOR GREENHOUSE USE

Copper naphthenate has been proven a safe preservative for treating lumber used in greenhouse benches, flats, and trays. Results of four years of testing were announced this week by Frank H. Kaufert, director of the University of Minnesota's School of Forestry, and K. A. Loerch, a former graduate student.

Other wood preservatives tested, including such standard solutions as creosote and zinc chloride, were found too poisonous to greenhouse plants to be used safely.

Rot-resistant heartwoods of cypress, redwood, and western red cedar are commonly used for greenhouse equipment, but high cost or difficulty in getting them often forces greenhouse men to use non-durable woods. Unless treated, such non-durable woods rot out in a few years in the warm, moist conditions of the greenhouse.

The experiments were made using tomato plants on which careful observations were made of color, leaf growth, and top growth. Kaufert and Loerch say that although thorough treatment by vacuum or pressure processes is best, greatly increased service life of non-durable wood can be obtained by soaking pre-cut lumber in a 15 per cent solution of copper naphthenate in Stoddard Solvent or mineral spirits for 20 minutes. Treated lumber must be stacked loosely for a month or longer to permit all of the solvent to evaporate.

Results of all the tests are given in a Minnesota Forestry Note, obtainable free from the School of Forestry, Institute of Agriculture, University of Minnesota, St. Paul 1.

B-342-hrj

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
February 3, 1955

Immediate Release

#### REPORT COMPARES YOUNG FARMER STARTING PLANS

Unless a beginning farmer has large savings and much farming experience, he probably is better off starting as a renter. So conclude two University of Minnesota agricultural economists, Truman R. Nodland, assistant professor, and Donald S. Moore, research assistant.

They say the beginning experiences of 562 young southern Minnesota farmers studied from 1947 through 1951 show a beginner can reap greater profits by investing his limited funds in a large, productive rented farm--rather than buying a smaller and less productive one.

Most beginners who started with savings of less than \$5,000 had higher earnings and greater financial progress under a livestock and crop share lease.

Here are other conclusions in Nodland's and Moore's report:

- Over 90 per cent of the beginners moved ahead financially during the period. There seems little relation between net worth and financial progress. Although owners earned much less than tenants, they made about the same financial progress in net worth--evidently they spent less on living expenses.

- With larger savings--\$8,000 to \$12,000--and under favorable conditions, some made as much financial progress starting as an owner as did others as a tenant. However, they made some temporary sacrifice such as a lower standard of living--at least at the beginning. They were also under heavier debt loads and greater risks, which forces strict budgeting and hard work. Pride of ownership may give greater incentive, however, than they might have had starting as tenants.

- Beginners starting as owners were using much more borrowed capital than tenants. Also, many were on a small equity, especially those with small savings. Owners with a net worth under \$10,000 usually had liabilities well over half their total assets. This made them especially vulnerable to weather, disease hazards and falling prices. However, tenants usually were not as deeply in debt.

(more)



- Owners' earnings averaged much smaller than tenants', although differences were not as great where either was worth over \$10,000. Livestock and crop share tenants had the largest average earnings of any renting group with a net worth of under \$10,000. But livestock and crop share tenant beginners worth over \$10,000 had the lowest average earnings.

- The reason owners earned less: they were on smaller, poorer farms. Tenants could employ more capital, too. Livestock and crop share tenants had the most capital of any beginners and were on larger and better farms. Thus, they had higher crop yields, more livestock, higher labor efficiency and lower power, machinery and building expenses. The advantages became less, however, as the beginner's net worth grew.

- Beginners usually were on smaller than average farms, usually less valuable per acre. However, livestock and crop share tenants' farms were an exception--they were about as large and almost as valuable per acre as the average area farm.

- In southeastern Minnesota, most common rental plan was a livestock and crop share lease--in southwestern Minnesota, a cash and crop share. The lease usually found on largest farms was the livestock and crop share. Under it, a beginner with small savings usually can run a larger farm because the landlord furnishes part of the capital. This beginner must, however, divide with the landlord a larger income from such a farm.

- Savings invested in a farm ranged from an average \$3,300 for livestock and crop share tenants to about \$9,500 for owner-operators. Few with less than \$5,000 were trying to start as owners and few with less than \$10,000 were in a livestock and crop share lease.

Nodland and Moore's conclusions: A young man with farm experience, who knows modern farming techniques and who is honest and frugal and wants to be a farmer, is quite likely to succeed even on small financial resources.

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
February 3, 1955

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FOR RELEASE:  
NOON, FRIDAY, FEBRUARY 4  
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#### U. ENTOMOLOGIST REPORTS LEGUME SEED IMPROVEMENT RESEARCH

ROSEAU, MINNESOTA — A University of Minnesota entomologist, Fred G. Holdaway, had encouraging news of the research program to restore high yield health to the state's legume seed growing industry.

He spoke here today (Friday, February 4) at the Legume Seed Production Institute and outlined progress in these fields:

ALSIKE CLOVER — Combining insect control, fertilizing and honeybee pollination, University researchers obtained yields in the last three years up to 700 and 800 bushels of seed per acre. This is seven times the state average from 1942 to 1951.

The residual effect of fertilizer from 1952 seed-growing plots which yielded the most seed doubled the 1953 barley yield. And 1954 small grain yields from the residual--or carryover-- effect of the fertilizer used for the 1953 seed crop was increased, though not as much because of heavy rust.

Research suggests that in counties suited to growing alsike clover--East Roseau, Lake of the Woods, Koochiching and St. Louis--sweet clover should not be grown for seed or allowed to flower. Marshall and Kittson counties and those to their south are suited for sweet clover seed production, however.

RED CLOVER — By insect control, fertilizer and honeybee pollination, the University team obtained yields up to 760 pounds per acre in 1954. Yield without pollination: only 27 pounds per acre. This 760-pound-per-acre yield is 13 times the state average for 1942-1951.

ALFALFA --- Insect control measures have helped boost seed yield increases up to three times those with no insect control. TCA gave promising results in quack grass control in alfalfa fields. Maleic hydrazide was found effective in prevention of cockle seeding.

Most promising results with honeybee pollination were obtained this year. Without competing crops to draw them away, honeybees apparently pollinate alfalfa while gathering nectar. Yields up to 740 pounds of alfalfa seed per acre were obtained. This compares strikingly with the average state yield of only 49 pounds per acre for the period 1942-1951

High alfalfa seed yields were obtained with a harvest on September 15. Lower yields were harvested in October.

B-344-hrj

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
February 3, 1955

( CORRECTED COPY )

\* \* \* \* \*  
FOR RELEASE:  
NOON, FRIDAY, FEBRUARY 4  
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B-344-hrj

News Bureau  
University of Minnesota  
Institute of Agriculture  
St. Paul 1 Minnesota  
February 7 1955

To all counties  
For use week of  
February 14 or after

FILLERS for Your Column and Other Uses....

Accidents Injure 50,000 in State -- Think of the populations of Rochester and Winona, add them, put them in a hospital or hospitals with broken limbs or burns. Makes you think, doesn't it? Well, that's the number of people -- 50,000 -- injured in accidents in Minnesota last year. Fortunately, however, the number of deaths from injuries in the home has been less each year for the fifth straight year. In 1949, there were 840 deaths from home accidents. In 1954 there were 537, compared to 568 in 1953. These figures from Glenn Prickett, Extension farm safety specialist at the University of Minnesota.

\* \* \* \* \*

Thinking of Rewiring? -- Does your 1955 budget include a rewiring job for the farmstead? It could be more valuable to you than some other improvement you're thinking of. Only about 10 per cent of the farmsteads in Minnesota are wired properly--that is, for safe and efficient use of electricity. Some of it was done in the early days of REA, others in the shortage days of World War II. And much was done before all the wonderful possibilities of using electric power on the farm and in the home were recognized. This tip comes to us from Don Bates, Extension agricultural engineer at the University of Minnesota.

\* \* \* \* \*

Give Pigs Good Start -- A tasty creep feed will get your pigs off to a good start and prepare them for early weaning if you decide to wean them earlier than usual. They'll begin eating a creep at seven or eight days of age and if it's well-stocked with vitamins, proteins and antibiotics they will gain rapidly and efficiently. This suggestion comes from Henry G. Zavoral, Extension livestock specialist at the University of Minnesota.

\* \* \* \* \*

Minnesota Soils Don't Need Trace Elements -- Our state's soils don't need trace elements such as boron, copper, manganese and zinc--at least, not now, according to University of Minnesota soils department research. Exceptions: high-value crops such as celery and rutabaga which have high trace-element needs. Peaty and muck soils often need them, too. A soil test will help you find out.

News Bureau  
University of Minnesota  
Institute of Agriculture  
St. Paul 1 Minnesota  
February 7 1955

To all counties

ATT: HOME AGENTS  
First in a series of six articles  
on buying rugs and carpets

KNOW FIBERS  
BEFORE BUYING  
CARPETS

More than the price, color and pattern are involved in buying a carpet for your home. The fibers used and their serviceability are important to know, too.

Extension home improvement specialists at the University of Minnesota say one of the first things to decide is the kind of fiber you want. Wool is the oldest and still the most popular of the carpet yarns, because it makes a carpet which is long wearing, springy under foot, resists soil, and after cleaning takes on a bright, almost new appearance.

Cotton carpets are second most popular. Cotton fibers are being treated to make them more soil resistant. The cotton carpets are sturdy and have clear, bright colors. Although not as springy as wool carpets, and more easily soiled, they can be washed at home if they are not too large.

Rayon and nylon fibers are fast coming into popularity as rug fibers. These nylon and rayon fibers are made expressly for rug fibers, and are not at all like the fibers used for clothing. These man-made fibers are now comparable to wool in resiliency and are impervious to moths and carpet beetles. Nylon carpets are more expensive than rugs of the other fibers, but they are more durable than the other fibers and will last a lifetime. Nylon is crimp set and permanently resilient; hence furniture on the rug will not make permanent marks.

Blends of wool and rayon make a carpet that looks like wool. The colors are brighter in these carpets, but they may soil faster. All-rayon carpets have strong colors, and are less expensive than wool rugs of comparable weight.

The extension home improvement specialists suggest you read the label on the rugs to learn the fibers used in the carpet face and back, and then choose according to your pocketbook, the care required and the length of time you want the carpet to last.

News Bureau  
University of Minnesota  
Institute of Agriculture  
St. Paul 1 Minnesota  
February 7 1955

To all counties  
For use week of  
February 14 or after

GOOD WINTER IS  
RATION VITAL FOR  
BREEDING EWES

The winter ration you give your breeding ewes can tip the profit scales into the black--or, if it's a poor ration, it can throw you over into the red and give you a raunchy-looking to boot.

County Agent \_\_\_\_\_ passes along some winter-feeding tips given him by a University of Minnesota Extension livestock specialist, W. E. Morris.

If you have good legume it's an ideal ration, Morris says. But many must depend on non-legume or common roughages for winter feed. These will do the job only if they are properly reenforced. Let's say you must feed wild hay, timothy or some such roughage. These hays are short of protein and minerals--and you must add them in other forms.

Also, it's well to self-feed a mineral with iodized salt to prevent goiter. Corn silage? It can be fed up to two or three pounds per head per day as part of the roughage. But if you feed large amounts of corn silage, it must be reenforced with a protein supplement containing 35 or 40 per cent protein--this can be fed as pellets at the rate of a pound per day for each four or five ewes.

Add, too, the mineral supplement, self-fed. If you have alfalfa silage, it is a good ration, but it should be "in partnership" with some alfalfa hay.

These rations are OK up to about a month before lambing, Morris says. Then, they need strengthening. If you've fed no grain up to that time, add a pound per head per day--a good combination is oats and shelled corn half-and-half by weight.

The corn has a little advantage in that it supplies more energy in the ration. This is very valuable in guarding against "bred ewe disease" or "pregnancy paralysis." Molasses has the same value and, in an emergency, you might want to use it because it can be more quickly taken in and used by the ewe than corn--otherwise, corn does the job just as efficiently, Morris says.

-hrj-

News Bureau  
University of Minnesota  
Institute of Agriculture  
St. Paul 1 Minnesota  
February 7 1955

To all counties  
  
For use week of  
February 14 or after

GROWING HEIFERS  
MAY NEED LESS  
EARLY FEED

Did you ever settle that feud with your neighbor over whether it's best to feed your heifers heavy or light for better production at calving time?

County Agent \_\_\_\_\_ says experiments at Cornell University in New York may decide who is right. The report comes from Ralph Wayne, Extension dairy specialist at the University of Minnesota.

In their experiments, Cornell University fed three groups of heifers on different levels of nutrition. One group was fed 65 per cent of the requirements for good growth, maintenance and production. Another was fed just enough--100 per cent. The other group was fed a ration considered more than necessary for requirements--140 per cent or 40 per cent above normal.

What happened by calving time? The low-fed group weighed less--only 945 pounds; the 100 per cent-fed group weighed 1,188 pounds and the 140 per cent-fed group 1,372 pounds. The low-fed group was four fifths normal weight at calving time, but here is the important thing--they gained gradually and by the third calving weighed about the same as the other two groups.

The liberally-fed groups came in heat sooner than the low-fed group. However, the low-fed group conceived better. After the first calving, weight differences were not important but the first calf weighed less in the low-fed group. In the production, the low-fed cows did as well as the others.

However, the low-fed group calved at 32 months and the other two at 29 months. Both calving ages, Wayne points out, are considered a little later than desirable.

He says the experiment points up three important things:

- + Level of feeding may not affect heifers' later development and production as much as has been thought.
- + Low-fed heifers may come in heat later and calve at a later age than more liberally-fed heifers.
- + It may be possible to "grow out" more heifers with a good roughage alone and save on feed costs with results--even though the animals develop more slowly.

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
February 8, 1955

Immediate Release

#### AG. CREDIT CONFERENCE AT U. NEXT WEEK

Minnesota's rural bankers will meet next week on the University of Minnesota's St. Paul campus. Occasion is the Third Annual Bankers' Agricultural Credit Conference, Thursday and Friday, February 17-18. Open to all Minnesota bankers, it is given in cooperation with the Minnesota Bankers' association.

Chairman of the program committee is O. B. Jesness, head of the University's agricultural economics department.

Thursday's speakers include E. Fred Koller, professor of agricultural economics and Harold C. Pederson, extension marketing specialist both of the University of Minnesota; George Wilkins, secretary, Minneapolis Grain Exchange; Frank Higgins, president of Frank H. Higgins company; Elvin Thue, Worthington National Bank, and R. F. Lichty, president, First National Bank, Austin.

Friday morning, W. L. Cavert, research director for Farm Credit administration, St. Paul, will speak on how modern farming changes credit needs and Reynold P. Dahl, assistant professor of agricultural economics at the University, will discuss farm machinery loans.

Friday afternoon's program includes discussions on installment loans, financing dealers, property improvements, personal loans and small business loans by small banks.

Complete information on the conference is available from the Short Course Office, Institute of Agriculture, University of Minnesota, St. Paul 1.

B-345-hrj



University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
February 8, 1955

Immediate Release

#### UNIVERSITY RESEARCH SHOWS BRUSH INCREASE ON FOREST LAND

Woody weeds on forested lands are a growing problem in northern Minnesota, so says a report from the University of Minnesota's School of Forestry on a brush invasion study financed by the Iron Range Resources and Rehabilitation Commission.

In a Minnesota Forestry Note published this week, Henry L. Hansen, associate professor of forestry, and Bruce A. Brown, instructor, say surveys in some northeastern counties show an increasing percentage of the better forest-growing lands are being taken over by brush. In the area surveyed, brush occupies almost 14 per cent of the commercial forest acreage, while productive pine forests cover only eight per cent.

Brush is defined as "woody plants that reach a height above two feet, but do not attain tree height." Hazel is the principal invader of the valuable upland pine areas. Brush control measures cheap enough to apply to extensive areas are still in the developmental stage. However, research indicates that hormone sprays applied by aircraft have possibilities.

The most disturbing part of the report says that brush competition is most severe on the better soil where tree growth is most rapid. If brush population under the pine stands is allowed to become heavy, cutting the pines leaves the area so choked with brush that young pines have difficulty becoming established and planting is very expensive.

Where brush invasion under pine stands is far advanced, brush populations of 20,000 stems per acre are not unusual, say Hansen and Brown.

Copies of the Minnesota Forestry Note in which the survey is described are available free from the School of Forestry, Institute of Agriculture, University of Minnesota, St. Paul 1.

B-346-hrj

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
February 8, 1955

Immediate Release

#### 4-H MEMBERS TO POULTRY CONFERENCE

Gloria-Jean Ailie, 17, New York Mills, and Larry Miller, 18, Jasper, will represent 4-H club members in Minnesota at the second annual Junior Poultry Fact Finding conference February 11-13 in Kansas City, Missouri.

Leonard Harkness, state 4-H club leader at the University of Minnesota, will accompany the two club members. The trips are being sponsored by the Minnesota Poultry, Butter and Egg association.

More than 20 states will have 4-H club members participating in the conference program which includes city and industry tours, processing and marketing clinics and a merchandising workshop.

Miss Ailie will give a demonstration Saturday morning on "New Techniques for Quality Egg Production."

Miss Ailie and Miller were chosen to represent Minnesota at the conference because of their outstanding work in the poultry project.

Now a senior in New York Mills high school, Miss Ailie has raised 6,150 chicks during the five years she has taken the poultry project. This past year she had 1,261 hens and 1,800 chicks. She has won blue ribbons at the Otter Tail county and the State Fair on her poultry demonstrations.

Besides keeping the books for the home poultry enterprise, she has spent many hours helping candle, grade and pack eggs at the small produce and hatchery her parents operate.

Miller started his poultry project seven years ago with ducks. In the last five years since he has been raising chickens he has increased his project from 250 chicks to 400. He can now cull a flock of layers, can recognize chicken diseases and can pick a prize bird from a flock. He hopes to have a poultry farm of his own someday.

Since 1948 he has won dozens of blue ribbons on his poultry exhibits at the Pipestone county fair and the State Fair.

Miller is president of the Eden Jolly Juniors 4-H club and is a senior in Jasper high school.

B-347-jbn

#### WATCH LOAD AND TEMPERATURE FOR CLEANER CLOTHES

It's the way a homemaker uses her washing machine rather than the type of washer she has that determines how clean her clothes will be.

So many queries have been made by homemakers about washing machines that recently home economics researchers in the U. S. Department of Agriculture tested the performance of the leading types of washers to answer the question: Which does the best job of getting clothes clean?

After putting 19 different washers through their paces, the equipment specialists came to the conclusion that no one type consistently gets clothes cleaner than others. But the way the machine is used may make a great difference in successful laundering.

For example, the studies showed that clothes wash cleaner if the machine is not loaded to capacity. Homemakers often make a practice of putting in a full load to save time, water or detergent. But for cleanliness the studies indicated that it's better to put 6 to 7 pounds of clothes in a washer that can take 8 to 10 pounds. Smaller loads come out cleaner.

Though homemakers often have been cautioned that overloading the machine may damage the motor, the studies showed that this hazard was slight in most washers. The big disadvantage of overloading is poor laundering.

Pretreatment of stains and use of very hot water are other important factors in getting white cottons and linens clean, according to Dorothy Bonnell, in charge of the household equipment laboratory at the University of Minnesota. Your cottons and linens will be whiter if you use very hot water--up to 160°F., she says.

They will also benefit from a pre-wash. Instead of soaking clothes, give them a preliminary washing of 5 to 10 minutes in the machine in warm water with a detergent added.

Miss Bonnell gives these additional points to keep in mind to get the best results from your washer: use soft or softened water; give your clothes a long enough washing period, but no longer than 20 minutes; sort loads by color, amount of soil and type of fabric. For efficient washing, loads need to be balanced between small and large pieces. For example, when washing sheets, put some small articles into the tub with them.

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Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
February 8, 1955

✓  
SPECIAL TO WILCOX  
County Agent Introduction

Here's a picture of two men very important to West Polk county farmers.  
At left is Henry O. Putnam, secretary of the Northwest Crop Improvement Association.  
At right is Carl G. Ash, county agent at Crookston. Ash has been on the job in  
West Polk county almost 23 years. He has been president of the Minnesota County  
Agricultural Agents Association, and received the Department of Agriculture  
Superior Service Award in 1949. In addition, he was given the National County  
Agents' Association Distinguished Service Award.

-dec-

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
February 8, 1955

Immediate Release

#### EGGS LEAD FEBRUARY PLENTIFULS

Eggs take the spot on the U. S. Department of Agriculture's plentiful foods list for February, Mrs. Eleanor Loomis, extension consumer marketing agent at the University of Minnesota, reported today.

Retail prices are expected to reflect the continuing abundance, and February should be another good month for high-quality eggs. As a protein food, eggs will be one of the best buys this month, Mrs. Loomis said.

Heavy turkeys - 18 pounds and over - from the big 1954 crop will still be in plenty this month. For company fare, a big turkey is a festive choice and this month should be a thrifty buy as well.

Frozen haddock and halibut, fresh and frozen shrimp, canned tuna and dry beans are other abundant protein foods.

Also continuing in plenty will be dairy products, as milk production increases seasonally.

Record crops of oranges and tangerines and a grapefruit crop well above average should make these fruits moderate in price all month.

Canned corn and canned green beans are particularly abundant as a result of two successive years of large packs and consequently should be good buys. The canned corn is of unusually high quality. Big supplies of lettuce will be coming to the Midwest this month from California and Arizona, and there will be lots of fresh carrots from Texas and California.

Lard, vegetable fats and oils, raisins, rice and almonds are other February plentiful.

B-349-jbn

University Farm News  
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Immediate Release

#### 4-H RECREATION TRAINING SCHOOLS

A series of 10 training meetings in recreation and rural arts will be held for 4-H and Rural Youth leaders in Minnesota beginning March 14.

Crafts and music will be the subject of this year's sessions, according to Mrs. Gwendolyn Bacheller, assistant state 4-H club leader at the University of Minnesota. Mrs. Mildred Sampson, 4136 - 23rd avenue south, Minneapolis, and members of the state 4-H club staff will conduct the training.

Meetings are scheduled as follows: March 14, Winona, YWCA; March 15, Waseca, Community building; March 16, Windom, Armory; March 17, Montevideo, St. Paul's Community church; March 18, Litchfield, Community building; March 28, Anoka, Armory; March 29, Little Falls, Congregational church; March 30, Detroit Lakes, Graystone hotel; March 31, Thief River Falls, Community building (tentative); April 1, Grand Rapids, Village hall.

Sessions will begin at 9 a.m. and continue until 4 p.m.

Each Minnesota county will send up to 10 leader representatives to the training meeting.

B-350-jbn

University Farm News  
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University of Minnesota  
St. Paul 1, Minnesota  
February 10, 1955

Immediate Release

#### UNIVERSITY GRADUATE STUDENT RECEIVES FELLOWSHIP

James C. Oberg, 2122 Garfield Avenue south, Minneapolis, a graduate student in the University of Minnesota's School of Forestry, has been awarded a \$400 fellowship for study of wood technology. Announcement came from W. C. Gorgas, executive secretary of the Furniture Club of America, Chicago, which gives the award.

It is made in recognition of Oberg's "academic aptitude, vocational promise, character and qualities of leadership." He is a graduate of Edison high school and received his bachelor's degree from the School of Forestry in 1953 in the field of wood technology. While an undergraduate he was president of the Lignum Club and a member of Xi Sigma Pi. He will receive his master's degree this year.

Oberg's industrial experience includes quality control work for the Wood Conversion company, Cloquet, and product development on hardboard manufacture for the Wabash Screen Door company, Minneapolis. His graduate research has been on the swelling of maple in mixtures of water with various chemicals.

B-351-hrj

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
February 10, 1955

*File*

\_\_\_\_\_  
(TOWN) MAN  
ATTENDING UNIVERSITY  
LUMBERMEN'S COURSE

\_\_\_\_\_  
(NAME) OF \_\_\_\_\_  
(FIRM)

is one of nearly fifty lumbermen from six upper midwest states registered for the University of Minnesota's annual four-week lumbermen's short course on the St. Paul campus.

According to J. O. Christianson, director of agricultural short courses, the school is held every year at the University's School of Forestry to give lumber yard owners and workers an up to date briefing on the latest in lumber processing and marketing. It is sponsored in cooperation with several leading lumber organizations. This is one of several ways the School of Forestry works for the lumber industry's benefit, both in the state and nationwide, says Louis W. Rees, professor of forestry and chairman of the committee on arrangements.

Many of the instructors in the school are from lumber manufacturing firms and processors. Other instructors are from the University's research and teaching staff of the School of Forestry and the Institutes of Agriculture and Technology. Still other instructors come from the Forest Products Laboratory at Madison, Wisconsin; the small homes council of the University of Illinois, Urbana, Illinois; and from industrial research laboratories.

In addition to teaching students the newest techniques in forest management and wood utilization, the School has many research projects in improving wood processing and treatment to prolong its life, as well as long-term projects in forest management.

hrj



University Farm News  
Information Service  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota.

Feb. 10, 1955

Special to:

Extension Service Review

FAMILY LIFE CONFERENCES  
PAVE THE WAY FOR  
IMPROVED FAMILY RELATIONS

by  
Caroline Fredriksen  
Acting District Supervisor

Minnesota Extension Home Program

Mrs. Anderson had returned home later than she expected after helping a sick neighbor. She was trying to prepare the evening meal and take care of the evening chores at the same time. Mr. Anderson wanted his meal on time, <sup>but</sup> she wanted the chores out of the way. Mrs. Anderson has expected that Alice, the 14-year-old, might help her with the meal and that Chris, the 12-year-old, might do some of her evening chores.

However, Alice was busy finishing and pressing a new dress she wanted to wear that evening and Chris was getting together some materials for his demonstration at a 4-H club meeting. Both of the children were calling on their mother frequently for help and advice. There had been several telephone calls about the 4-H club meeting that evening.

The hurry, interruptions and confusion made Mrs. Anderson very tense. Mr. Anderson was irritated by the whole situation. He felt the children should be helping their mother.

When the family went to the 4-H club meeting together that evening, Mrs. Anderson was feeling and looking bedraggled, as she had not had time to comb her hair or really get ready. On the way, Alice said she wished her mother would cut her hair so she would look better. Consequently, Mrs. Anderson felt even worse, though she didn't really believe that cutting her hair was the answer.

(more)

This was one of a number of situations discussed at the Family Life Conferences held throughout Minnesota this year on the theme "Getting Along Together in the Family." Mrs. Louise Danielson, extension family life specialist, trained leaders in county-wide meetings on the topic. These leaders in turn are presenting the material to their groups.

That the frank discussions at the meetings and the help given in solving problems are making a real impact on home situations is evident time and again. In one home, for example, a teen-age boy was resentful because he was denied a "heinie" haircut. When his mother returned from the Family Life Conference he was amazed to hear her say that he could have his haircut, after all. His exclamation, "Hurray for the Family Life Conference!" would probably be echoed by teen-agers and parents all over the state. For this seemingly trivial incident is typical of the improved understanding between parents and children that is resulting from the conferences.

Following a county-wide meeting in Blue Earth county, 59 local group meetings were held with an attendance of 682. The interest in this county is representative of that shown elsewhere in Minnesota.

Group reaction was indicated on report cards by such comments as: "Sincere interest - enthusiastic discussions - thought-provoking questions"; "Complete, interesting lesson, appreciated coverage of family problems"; "Everyone said it was one of the most interesting meetings we have had"; "We had a very good discussion"; "Buzz sessions very successful and informative"; "Very good for young wives"; and "Everyone took part."

Interest in this topic has become so widespread that other organizations have requested leaders to take charge of the discussions at community meetings in addition to their small home program group.

(more)

A typical plan for the day-long program includes:

- Pooling of questions concerning the topic from members of the group.
- Presentation of topic "Getting Along Together in the Family" by the family life specialist (about one hour)
  - Discussion of questions asked earlier (led by home agent, with specialist as consultant)
  - Preparation for "buzz" sessions.
  - Lunch
  - Approximately 8-10 members from "buzz" sessions discuss three family situations.
- Report of group discussions by panel of secretaries (home agent-moderator)
  - Open discussion led by home agent.
  - Comments on situations by specialist.
  - Completion of questions asked in the morning (led by home agent)
  - Preparation for local group meeting - led by home agent.

A meeting such as this could be planned by any county where a suitable consultant on family life or parent education can be found. Discussions are believed to be most effective if attendance is limited to 100 or less.

Preliminary work consisted of writing and publishing a pamphlet entitled "Getting Along Together in the Family", preparation of three family situation statements with guide questions for discussion and making of leader outline for presentation at a local group meeting.

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From: Jo Nelson  
Information Service, St. Paul campus  
Feb. 10, 1955

OUTLINE FOR PICTURE:

Special to MINNESOTAN

Richard Stadtherr, research fellow in horticulture, dusts a growth-promoting substance on some cuttings of Canadian hemlock before planting them for propagation. It takes about 6 to 10 weeks to root most cuttings in the special polyethylene propagating case in the University greenhouse.

#### HOW DO YOUR ORNAMENTALS GROW?

The U horticulture department is ~~developing~~ many varieties of flowers and woody plants to adapt them to Minnesota gardens

The extremes of heat and cold typical of Minnesota climate may bother some people. But those extremes bother plants, too.

In fact, Minnesota's rigorous winters have been responsible for an extensive plant breeding and testing program in the horticulture department - not only in fruits and vegetables, but in ornamentals as well. Objective of the ornamental program is to develop a greater variety of trees, shrubs and flowers that will do well in the Minnesota climate and - what is especially important - survive the rugged winters.

This year two new outdoor chrysanthemums developed by the department of horticulture are being introduced to home gardeners. They are Wenonah, a light lavender, early-flowering 'mum, and Vulcan, a dark red double flower.

For chrysanthemums that riot in brilliant color in a last burst of bloom before frost strikes, gardeners in Minnesota and other northern states can thank the University - and men like the late Dr. L. E. Longley. Twenty years ago few chrysanthemums were successfully grown in northern regions, because autumn frosts usually killed the buds before they started blooming.

Dr. Longley was a pioneer in developing satisfactory varieties that flowered early enough for northern gardens. He began the University's chrysanthemum breeding work in 1936. Before he retired in 1949, he was responsible for developing and introducing 26 garden chrysanthemums especially adapted to northern climates. Many of these are grown not only in the Midwest, but all over the country. Most popular are the rich purple Chippewa, the dark yellow Butterball, pink Dr. Longley, Purple Star,

white Dee Dee Ahrens, white Glacier, Redgold and Violet.

After Dr. Longley's retirement the work in chrysanthemum breeding was taken over by Robert Phillips and Richard Widmer. Two new varieties were introduced in 1952, Harvest Bronze and Prairie Sunset. With the introduction of Wenonah and Vulcan this year, the horticulture department has achieved the record of developing 30 varieties of chrysanthemums. At the present time emphasis in the chrysanthemum breeding program is being placed on hardiness, new colors, larger blooms and more varieties of the cushion type.

Most Minnesota gardeners would like nothing better than roses which do not require all the protection now necessary for most varieties grown here. That's another problem Phillips is working on, using the native prairie rose as one of the parents to develop hardiness.

The work on developing hardy roses was started by Dr. Longley. Before his retirement he had developed and introduced four different varieties for northern gardens. One of these is White Dawn, a low climber with pure white blossoms resembling gardenias when open. Now sold all over the country, White Dawn is especially adapted to this section of the country because of its hardiness. The three other varieties developed at the U also have hardiness: L. E. Longley, a red hybrid tea rose, Red Rocket and Pink Rocket, single roses of the shrub type and good plants for the background of the flower border.

If there are those Minnesotans who cast envious eyes to the south at the luxurious blooms of azaleas and rhododendrons, it may be encouraging news that at some time in the future they, too, may be able to point proudly to such plants in their own gardens. According to Leon C. Snyder, head of the horticulture department, ~~a large variety of~~ azaleas, rhododendrons, redbud, flowering dogwood, viburnum, weigela and cotoneaster from all over the United States are being tested on the St. Paul campus, at the University Fruit Breeding Farm near Excelsior and at the branch agricultural experiment stations. Forty different flowering crabapples will be planted this spring at the Fruit Breeding Farm. Crossing will be done on azaleas and rhododendrons and selections made in an attempt to develop varieties that will grow <sup>here</sup> successfully ~~more-~~

As a matter of fact, many of the spring-blooming shrubs that now adorn the home grounds of so many Minnesotans might never have been planted, had it not been for the widespread testing program carried out by the horticulture department. The Sylvia mockorange, Toba hawthorne, Prairie almond, dwarf Caragana are examples of shrubs developed at the Morden Experiment Station in Manitoba, Canada, tested successfully in Minnesota and brought to the attention of the public.

As a result of the department's plant breeding program, Minnesotans can also enjoy the lovely spring bloom of the Flame crabapple, the Newport plum, the Orient cherry. All three of these developments are fruit bearing but make attractive additions to the shrub border. Another flowering crabapple is expected to be ready for introduction in several years, along with several ornamental highbush cranberries.

A new research program has been launched since the appointment<sup>in October</sup> of Richard Stadtherr as research fellow. Stadtherr will do experimental work on ~~insect~~ trees and shrubs, ~~in~~ propagating and testing woody plants for Minnesota home grounds. He will also ~~will~~ test different grass combinations, make studies of lawn fertilizing and weed control.

Indoor gardening problems aren't being neglected, either. Widmer is busy in the greenhouse trying to find improved cultural methods to produce plants which will stand up better in the home. He has another angle, too— he's trying to find methods of cheaper production so florists can sell to consumers at a lower price.

Better lawns, more and better flowers and woody plants for Minnesota gardens are the tangible results to come from all this work in ornamental horticulture. But if the work of the department is to bear fruit, the public has a responsibility, too, Snyder points out. "No matter what you're planting, the only way to get really good results is to plant varieties adapted to the conditions of your locality," he says.

Any gardener can find out what trees and shrubs are suitable for Minnesota by consulting the list in "Woody Plants for Minnesota," an Agricultural Extension Service bulletin by Snyder and Marvin E. Smith, extension forester ~~at~~ the University. Copies of the bulletin are available from Bulletin Room on the St. Paul campus or at any county extension office.

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Immediate Release

#### NEW FOLDER LISTS RECOMMENDED CROP VARIETIES

The 1955 edition of the University of Minnesota's Extension Folder 22, "Varieties of Farm Crops," now is available free at county agents' offices.

It lists recommended and currently-offered varieties of corn, oats, rye, durum and spring wheat, soybeans, barley, alfalfa, birdsfoot trefoil, bromegrass, sweet and red clover, field peas, flax, Sudangrass, sunflowers and timothy.

University of Minnesota agronomists have a three-year program of field testing to decide whether a new crop variety should be recommended for growing in Minnesota. Trial plots on the University's several experiment stations over the state show general performance, yield, maturity time and how well each variety resists disease.

The folder lists all varieties recommended by the University. Varieties that do not meet the high University standards are in a "not recommended" list. Those that have not finished the three-year testing period fall in the "not adequately tested" list. Such varieties may show promise but until testing is finished they cannot be judged "recommended" or "not recommended."

Extension Folder 22 also has a map showing Minnesota's six corn maturity zones and a map of the state's four small grain and flax regions.

"Varieties of Farm Crops," Extension Folder 22, is available free at county agents' offices or by writing the Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul 1, Minnesota.

B-352-hrj

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
February 10, 1955

Immediate Release

#### CHAIRMEN FOR NATIONAL HOME ECONOMICS CONVENTION ANNOUNCED

Local chairmen have been named for the American Home Economics association convention to be held in Minneapolis June 27-July 1.

Nearly 4,000 home economists from every state are expected to attend the meeting.

Announcement of the local chairmen was made by Dorothy Simmons, state leader of the extension home program at the University of Minnesota, and Mrs. Margaret Dayton, nutritionist for the Hennepin county Red Cross, who are heading the convention arrangements committee.

Local chairmen are: all-states reception, Marian Quire, 2404 Clinton Avenue S., Minneapolis; college clubs, Ruth Hallet, Mankato; information booth, Mrs. Charlotte Jacobson, 2324 Parkland road, Minneapolis, official meals, Elizabeth Goodman, 4132 Toledo avenue, Minneapolis; pages, Weltha Johnson, 3424 Colfax avenue S., Minneapolis; entertainment, Henrietta Quilling, 1640 Randolph avenue, St. Paul; publicity, Mrs. Eleanor Loomis, 5428 Kellogg avenue, Minneapolis; registration, Lyla Mallough, 207-10th street, White Bear Lake; trips, Priscilla Rugg, 509 Cretin avenue S., St. Paul; and hospitality, Mrs. Dorothy Mattson, 5729 Pillsbury avenue, Minneapolis.

For pre-convention sessions the following chairmen have been appointed: for college and university section, Louise Stedman, 1415 Cleveland avenue N., St. Paul; for Home Economists in Business, Mrs. Helen Hallbert, 2961 Jordan avenue S., Minneapolis; Extension, Evelyn Morrow, 1986 St. Clair avenue, St. Paul; public health and welfare, Mrs. Helen Hughes, 2120 Commonwealth avenue, St. Paul.

B-353-jbn



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Immediate Release

#### FEEDERS COMPARE HAY AND CORN SILAGE VALUE

Lambs gained at about the same rate and cost per pound of gain on alfalfa hay or corn silage as their only roughage in a 70-day western Minnesota experiment.

It was conducted at the University of Minnesota's West Central School and Experiment Station at Morris from November 3, 1954, to January 12, 1955, and reported at the annual Morris Lamb Feeders' Day recently.

Philip S. Jordan, associate professor of animal husbandry, H. G. Croom, School principal, both of Morris, and Robert M. Jordan, assistant professor of animal husbandry at the University of Minnesota, supervised the tests.

Results indicate that corn silage can be fed fattening lambs as their only roughage. However, although corn silage-fed lambs gained as fast and as economically, they didn't have as high a carcass grade and were evaluated at 25¢ per 100 pounds less than lambs fed alfalfa hay as roughage.

Hay-fed lambs each ate about 1.5 pounds per day and those fed corn silage ate about 2.3 pounds per day. Alfalfa hay was figured at \$16 a ton and corn silage at \$6 a ton.

The alfalfa hay-fed lambs ate about the same amount of concentrate--shelled corn and soybean oil meal--as the corn silage-fed lambs.

The researchers say these results indicate that the feeder who can produce good corn silage efficiently will find it a profitable roughage for fattening lambs.

B-354-hrj

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 February 11, 1955

### PLANT THE RIGHT VARIETY FOR FREEZING

By J.D. Winter, Associate Professor of Horticulture,  
 University of Minnesota

This is the time of year to plan the varieties you will use. You have a much wider choice of varieties than the commercial processor because certain factors of importance to him are of no concern to you. For example, it makes no difference to you whether a variety has growth habits that will permit harvesting and processing with heavy duty power machinery.

Many varieties are reasonably good for freezing, but it is necessary to use a first-class freezing variety to get the very best results in appearance and quality. It is surprising how much difference may be found in this respect among the common garden varieties.

In some cases, the purpose for which a vegetable is to be used will determine its rating. For example, some varieties of squash are excellent for pie but quite unsatisfactory for mashed squash and vice versa. Many varieties of sweet corn are satisfactory for whole kernel corn, but only a very few have been found to rate well for corn frozen on the cob. Some of the best "pumpkin" pies are made from blends of several varieties of squash.

It is not possible to list all the good freezing varieties that may be grown in Minnesota because many of them have not been given a thorough test for this purpose. However, the following are recognized as good freezing varieties. If you find others to be as good or better, you will know that such varieties are among the best for freezing.

Asparagus—California 500, Washington

Green Beans (round podded bush)—Giant stringless green pod, Topcrop, Wade.

Green Beans (pole)—Blue Lake Stringless, Kentucky Wonder.

Gold (a very late maturing variety).

Lima Beans—Burpee's Improved Bush, Clark's Bush, Early Market, Fordhook No. 242, Triumph.

Beets—Detroit Dark Red, King Red, Gould's Early Bunching.

Broccoli—Freezers Green Sprouting Waltham 29.

Brussels Sprouts—Half Dwarf Improved, Long Island Improved.

Carrots—Chantenay Red Cored, Royal Chantenay, Imperator, Nantes.

Cauliflower—Snowball, Super Snowball, Snowdrift.

Sweet Corn (on cob) — Cream O'Gold, Golden Cross Bantam, Golden Freezer, Iogold, Heesier Gold, Early Golden 113.

Sweet Corn (whole kernel)—Most good garden varieties.

Egg Plant—Any variety of good quality and color.

Peas—Burpeana Early Dwarf, Lincoln, Little Marvel, Perfection Dark Seeded, Thomas Laxton.

Pepper—Calwonder, Ruby King.

Rhubarb—McDonald, Valentine.

Spinach—Woodsdale Long Standing, Giant Nobel, Northland, New Zealand.

Summer Squash—Summer Crookneck, Zucchini.

Winter Squash (for pies)—Banana, Golden Delicious, Greengold, and blends of these varieties.

Winter Squash (for mashed squash)—Buttercup, Faribo Hybrid G, Faribo Hybrid R, Greengold, Rainbow.

News Bureau  
University of Minnesota  
Institute of Agriculture  
St. Paul 1 Minnesota  
February 14 1955

To all counties

ATT: HOME AGENTS  
(2nd in series on buying rugs  
and carpets)

COLOR A FACTOR  
IN BUYING A RUG

The amount of use your rug will get and the blend of color with other furnishings should determine the color of your new carpet, says Home Agent \_\_\_\_\_.

If your new carpet is to blend in with the other furnishings in the room, avoid too much pattern in the design. Select a good background color rather than a strong, startling contrast to the rest of the furnishings, suggest the extension home improvement specialists at the University of Minnesota. If you are redecorating, let the rug color be your guide to the choice of wall color, draperies and upholstery fabrics.

Remember that plain-colored rugs, laid wall to wall, make a room look larger. Very light carpeting will show soil in areas of heavy use, and dark carpeting shows footprints, dust and lint. For heavy travel, rugs of middle color values will show least soil.

When purchasing a rug, it is a good idea to choose a shade a trifle stronger than the final color desired, so that eventually, because of the grayed effect of dust, the carpet will be the shade desired. If the rug is to be matched to wall coloring or fabrics, it might be a wise idea to soil a small cutting of the rug deliberately to see how well the colors will match later. Strong colors such as red, royal blue, medium and dark green can stand this discoloration, but the light colors can't. Eventually delicate shades are obscured by the dust that will be added gradually to the carpet, regardless of the number of times it is swept.

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To all counties  
ATT: 4-H AGENTS  
For use before Scheduled  
Meeting

LOCAL LEADERS  
TO RECREATION  
SCHOOL

A group of 4-H club leaders and Rural Youth representatives will attend the training school in recreation and rural arts to be held in \_\_\_\_\_ in \_\_\_\_\_  
(city) (building)  
on March \_\_\_\_\_.  
(date)

Those who will attend the meeting include: (give names and addresses)

Crafts and music will be the subject of this year's sessions, according to Club (County) Agent \_\_\_\_\_. Mrs. Mildred Sampson, Minneapolis, and members of the state 4-H club staff will conduct the meeting.

The session will begin at 9 a.m. with music and examination of craft displays. A discussion of the philosophy of recreation and a demonstration of various crafts will conclude the morning program.

Workshops will be held in the afternoon on metal enameling, metal coiling, suede craft and copper tooling. Suggestions will also be given on teaching crafts and music at local 4-H club meetings and camps.

-jbn-

NOTE TO AGENT: Here are dates and places of meetings -

March 14 - Winona - YMCA  
March 15 - Waseca - Community Building  
March 16 - Windom - Armory  
March 17 - Montevideo - St. Paul's Community Church, North 5th Street  
March 18 - Litchfield - Community Building  
  
March 28 - Anoka - Armory  
March 29 - Little Falls - Congregational Church  
March 30 - Detroit Lakes - Graystone Hotel  
March 31 - Thief River Falls - Community Building (tentative)  
April 1 - Grand Rapids - Village Hall

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To all counties  
For use week of  
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FILLERS for Your Column and Other Uses....

Fertilizer Balance Important -- Balance is as important to the farmer as it is to the tight-rope walker, a University soils man writes us. Says Harold E. Jones, an Extension soils specialist: "Balance is the key word in fertilizing. A few years ago we thought all most Minnesota soils needed was a little phosphate. Today, on many of these same fields fertilizers not only must meet a larger part of the soil's potash hunger but must have nitrogen and phosphate. If, last year, these fertilizers didn't increase crop yields on low-producing soils, it means you haven't put on enough or the right kind.

\* \* \* \* \*

Infrared Lamps Have Many Advantages -- Would you pay out 18¢ -- what you pay for a round of coffee and doughnuts for one these days -- to keep a litter of baby pigs warm and healthy and possibly save the lives of one or two? Who wouldn't? Actually, just one live baby pig, worth at least \$5 at birth, is "worth" the cost of using an infrared lamp on the litter for over two weeks. This tip comes to us from H. G. Zavoral, Extension livestock specialist at the University of Minnesota.

\* \* \* \* \*

Early-Weaning Tip -- Farmers planning to try early weaning will want to adopt this efficient-feeding suggestion from University of Minnesota hog specialists. They say to provide the small-size equipment for the small pigs. You can buy junior size self-feeders and waterers. However, shallow troughs and pans aren't advisable. Why? The eager piglets get into them, waste feed and make sanitation more difficult.

\* \* \* \* \*

Take Good Look at 1955 Income Tax Laws -- The changes in the federal income tax law will merit looking into. Congress made many changes in 1954. It will pay you to study the new provisions of the law in planning your 1955 cropping and livestock program. This suggestion comes from S. B. Cleland, Extension farm management specialist at the University of Minnesota.

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To all counties  
For use week of  
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WHEAT FARMERS  
SHOULD CHECK  
ACRE ALLOTMENT

Farmers planning to grow spring wheat this year would be wise to check their acreage allotment with the local Agricultural Stabilization and Conservation Committee (ASC) before planting, says County Agent \_\_\_\_\_.

Wheat planted over the acreage allotment may not be permitted to reach the stage of maturity where it can be harvested for grain if the grower wishes to avoid marketing quota penalties and take full advantage of the wheat price support program.

Wheat acreage in addition to your allotment which cannot be used profitably for hay and grazing or for protecting land from erosion is a pure waste of seed, fuel, labor and land, say ASC officials.

The ASC office will notify growers of the date by which their excess acreage must be turned under as green manure, used for silage, pastured, or cut for hay, if it is not to be counted as "wheat acreage" in determining compliance under the program.

Growers who do not dispose of excess acreage by the announced time will be subject to a marketing penalty of 45 per cent of the parity price per bushel as of May 1. This will be calculated on the average yield for the farm applied to the excess acreage. The penalty will apply to any grain marketed in 1955 until the full amount is paid.

Compliance with acreage allotments is also a legal requirement for eligibility to receive payments under the Agricultural Conservation Program, \_\_\_\_\_ says.

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

U. SPECIALIST  
GIVES EARLY-  
WEANING TIPS

Thinking of weaning baby pigs earlier? Then you'll be interested in recent large-scale early-weaning experiments at the University of Minnesota.

County Agent \_\_\_\_\_ reports the findings of Prof. L. E. Hanson, in charge of the tests. Hanson says early weaning is practical if the farmer follows good management and has good baby pig-raising quarters. He lists some of the essentials:

- + The University's draft-free barns were kept at 65 degrees F. and each pen of five or six piglets had a 250-watt heat lamp. This should be OK for January-February weather.

- + Pigs do best, especially the first week, with only 10 or 12 in a pen. Large groups in one pen don't learn to eat as readily as small groups. Hanson even found groups of five or six better than 10 or 12. Right population for an eight-by-eight foot pen: 10 piglets.

- + Each piglet should have at least five square feet of "territory." And he'll need more by the time he's eight weeks old. Raising seven pigs to eight weeks in a four-by-eight foot pen crowded them and made sanitation difficult.

- + Sanitation is essential--clean pens thoroughly and disinfect before pigs go in them. Then keep the pens clean. Once-a-day cleaning was found OK at the University.

- + Pens should be bedded with clean bright straw. Ground corn cobs might do. The important thing is insulating pigs against often-cold concrete floors.

- + For scours, University feeders prefer water medication with a soluble antibiotic or arsonic acid. One reason: sick piglets may eat very little feed, but they will drink water. If early-weaning pigs get sick, call the veterinarian, suggests Hanson. It may be a serious disease he can handle, but it may get out of hand if not treated early.

- + Give small pigs equipment their size. Small self-feeders and waterers are available. Put feed and water where piglets find it easily. One test showed that changing the feeder to a better location helped pigs learn to eat. Also good is a small attraction light near the feeder. A small self-feeder in the farrowing stall or in a creep before weaning will lessen the shock of early weaning.

In summary, Hanson says early weaning doesn't take a lot of labor but it's a "precision business" the first week after weaning.



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SPECIAL TO WILCOX

County Agent Introduction

A University of Minnesota publication designed for rural homemakers gets an experts' evaluation here by former Clay County Home Agent Eleanor Fitzgerald, left, of Moorhead, and Evelyn Morrow, northwest district home agent supervisor from the University's Institute of Agriculture in St. Paul. Mrs. Fitzgerald has been at Moorhead since 1933. She is a graduate of North Dakota Agricultural College at Fargo. Since she took the home agent post, enrollment in the Clay County Extension home program has increased to 740 members in 52 adult groups. She also helped develop a strong 4-H club program. However, Minnesota recently lost Mrs. Fitzgerald's skilled services. You might say she was promoted. On February 1, she became mother of a baby girl, her first child, and has resigned to devote full time to homemaking.

-hrj-

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### HELPS FOR HOME AGENTS

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

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Special Issue on Weight Control  
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Because of the widespread interest in weight control, we thought you might be interested in having a special issue on the subject, with short items you can use on your radio programs, in your columns or in some other way. This issue, which contains some of the highlights of the Weight Control Colloquium at Iowa State College, was prepared with the help of Grace Brill, who attended that conference.

(Mrs.) Josephine B. Nelson  
Extension Assistant Editor

In this issue:

Obesity is National Health Problem  
More Men Overweight than Women  
Diets Must be Nutritionally Adequate  
How Many Calories to Cut?

Always Check with Doctor Before Reducing  
Physical Exercise Can Help  
Nutritious, Varied Diet Important  
Beware of Misleading Propaganda

#### Obesity is National Health Problem

Obesity is a major health problem today. According to Dr. James Hundley of the National Institutes of Health, Public Health Service, obesity is associated with definite health hazards in terms of many serious diseases and it also seems to cut down length of life. It seems clear, he says, that large health gains would result if obesity could be prevented or remedied among a substantial number of people in the nation.

-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.

WEIGHT CONTROLMore Men Overweight Than Women

Overweight among adults is very prevalent in the United States, but particularly among men. More than twice as many white men are overweight as white women.

Dr. James Hundley of the Laboratory of Biochemistry and Nutrition, National Institutes of Health, Public Health Service, reported at the recent Weight Control Colloquium at Iowa State College that studies have shown that men are now about five pounds heavier for their height and women about five pounds lighter than similar groups in 1912. The exceptions are colored women who appear to be about 15 pounds heavier than in 1912.

\* \* \* \* \*

Diets Must Be Nutritionally Adequate

The most effective weight reduction diets are low calorie, high protein, low carbohydrate, according to laboratory studies carried on at Michigan State College. But all persons who want to control their weight must accept a reduction in quantity of the food they eat, Dr. Margaret Ohlson of the foods and nutrition department at Michigan State College said at the recent conference on weight control at Iowa State College.

Dividing the diet into three approximately equal meals is also important. Too many people eat little or no breakfast, a scanty lunch and then a large dinner. It's better to eat three meals about equal in size to control hunger or appetite pangs. One of these should be a good breakfast, Dr. Ohlson said.

\* \* \* \* \*

How Many Calories to Cut?

If you want to estimate your daily quota of calories for safe reducing at the rate of a pound a week, subtract 500 calories from your daily calorie requirement. It takes a reduction of from 3,500 to 4,000 calories to lose one pound. If you're really concerned about losing weight, get a calorie chart and start counting your calories. And remember that you can reduce the number of calories amazingly by omitting rich desserts - like pie, cake and doughnuts. One two-inch piece of layer (1/16 of a cake) with frosting, for instance, adds up to 410 calories, a cake-type doughnut to 135.

WEIGHT CONTROLAlways Check with Doctor Before Reducing

It's always wise to check with your doctor before starting any plan to lose weight. Many factors play a part in whether a person should reduce and how fast he should lose weight.

\* \* \* \* \*

Physical Exercise Can Aid in Weight Control

Inactivity is an important factor explaining the frequency of "creeping" overweight in our society.

Dr. Jean Mayer, of the School of Public Health at Harvard University, told participants at the recent Weight Control Colloquium at Iowa State College that physical exercise plays more important role in maintaining normal body weight than is generally believed.

Research on both animals and humans indicates that inactivity provides much of the reason for weight gain. Dr. Mayer does not advocate irregular strenuous exercise for obese people, but he does contend that reorganizing one's activities to include regular exercise adapted to one's physical potentialities is wise. To his way of thinking, if modern man is to get along under present sedentary ways of living - without developing obesity - he has the alternative of stepping up his activity or else being hungry all his life.

He does not go along with the theory that it takes 36 hours continuous walking to get rid of one pound of fat and therefore "why bother." Or that it takes seven hours of splitting wood to get the same result - a chore that would discourage almost anyone. Instead, he points out that the seven hours of wood splitting do not need to be consecutive to get rid of that pound of flesh. If done daily one-half hour at a time, they could actually add up to a loss of 26 pounds of weight in a year's time.

It's well to remember that the automobile, labor-saving devices, small homes, shorter working hours, less recreation all reduce our expenditure of energy.

\* \* \* \* \*

WEIGHT CONTROLNutritious, Varied Diet Important

A good reducing diet should be nutritious and varied. Extension nutritionists at the University of Minnesota point out that it's much easier for a person to stay on a reducing diet which includes a variety of foods as well as foods which are familiar to the individual.

A good reducing diet should include each day:

Milk - two or three cups a day. This might be skim milk.

One or more servings of meat, fish or poultry.

Eggs - one a day, or at least four or five a week.

Vegetables - two or more servings, one a dark green or bright yellow.

Fruits - two to three servings, one a citrus fruit, unless tomatoes or raw cabbage is included in the diet.

Butter - at least one tablespoonful or three teaspoonfuls.

Bread and cereal - enriched or whole wheat - two or three servings.

\* \* \* \* \*

Beware of Misleading Weight Control Propaganda

Misleading propaganda on weight control is dangerous because it attracts so many followers and is likely to endanger health, according to Ruth Leverton, head of the home economics research staff at Oklahoma A. and M. college. It flourishes on the extravagant claims which it makes, on its glamor and wide appeal. It receives additional impetus because it can make money for those who are behind the propaganda. It feels no responsibility for unsuccessful customers.

Dr. Leverton characterizes four different kinds of misleading propaganda:

1. "Eat as usual" propaganda which implies that no change in food intake is necessary to bring about a change in weight.
2. Claims that weight will change if mental attitude toward food is changed.
3. Propaganda which says purchase and use of some special product is necessary.
4. Propaganda which proclaims that emphasis or de-emphasis of certain foods is all that is necessary.

Nutrition and adequate diet are often ignored by these propagandists. Being well informed is an effective way of combating such misleading propaganda.

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Immediate Release

#### DATES OF HORTICULTURE SHORT COURSE SET

The University of Minnesota's annual horticulture short course will be held this year on Friday and Saturday, March 25 and 26, on the St. Paul campus, J. O. Christianson, director of agricultural short courses, announced today.

As in the past, the first day's session of the popular short course for home gardeners will be devoted to vegetable gardening and fruit growing. Saturday, March 26, the program will be given over to ornamental horticulture. A special feature of the Saturday program will be demonstrations on flower arrangements.

Troy M. Currence, professor of horticulture, is chairman of arrangements.

B-355-jbn

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Immediate Release

#### 4-H PIE QUEEN TO NATIONAL CHERRY PIE CONTEST

Minnesota's 4-H pie queen, pretty 15-year-old Janet Stauning, Lockhart, will compete with 47 other state pie champions in the 23rd annual national cherry pie baking contest on Friday, February 18, in Chicago.

Janet won the trip to Chicago to take part in the national event when she was selected as state 4-H pie baking champion at the Minnesota State Fair last fall. She won the state 4-H title in competition with 63 other contestants, all county winners.

The national cherry pie baking contest, sponsored each year by the National Red Cherry Institute, will be held in the Morrison hotel in Chicago Friday morning (February 18).

The contest is limited to girls and boys between the ages of 14 and 21 and only one representative from each state may participate. Each of the four regional winners will receive a \$250 college scholarship in home economics to the school of the contestant's choice and a new electric range. The national winner will receive a \$500 college scholarship in home economics, a trip to Washington, D. C., and New York City and a new electric range.

Janet's prize-winning pie at the State Fair was apple, but she has had plenty of experience baking cherry pie, too. Last year she won reserve championship in Norman county with her cherry pie. She has carried the food preparation project for three years.

A sophomore in Ada high school, Janet plays in the band and sings in the chorus. She is the daughter of Mr. and Mrs. Ed Stauning, who operate a 640-acre farm near Lockhart.

Marion Parbst, Norman county home agent, and Mr. and Mrs. Stauning will accompany Janet to Chicago.

B-356-jbn

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Immediate Release

#### UNIVERSITY SCIENTISTS STUDY CORN BORER HABITS

If the European corn borer, a worm that's a prime damager of Minnesota and upper midwest corn crops, could feel angry, it would probably be highly indignant about one project at the University of Minnesota's Institute of Agriculture.

A team of University scientists, corn specialists E. L. Pinnell and E. H. Rinke and entomologist Fred G. Holdaway, are producing double-cross hybrid corn varieties that resist corn borer attack. To date, two new borer-resistant varieties, Minhybrid 411 and 412, have been released to the state's farmers.

In the program, Holdaway and H. C. Chiang are studying corn lines that resist borer attack to find out why. Corn breeders Pinnell and Rinke work to incorporate the resistant lines or families of corn into varieties with high-yield, good kernel quality and other desirable traits.

Holdaway and Chiang hope to find out what in the "resistant" corn plant's chemical structure makes the borer lose interest in the plant and not feed on it. Studies indicate that corn borers do not feed on "resistant" plants because (1) such plants do not meet the borer's food needs and (2) chemicals in the plant's tissues make it unappealing. Reason for the plant's untastiness to the borer may be some small difference in the plant's chemical makeup.

Also, fewer corn borers survive on resistant plants--those which "stick it out" and live grow more slowly -- and young borers don't start feeding on "resistant" plants as readily as they do on "susceptible" ones.

Over three million corn borer eggs are produced in University laboratories each year for artificial infestation of thousands of corn plants so scientists can measure the borer resistance of each plant. They can then select resistant plants for borer-resistant corn breeding.

B-357-hrj



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Immediate Release

#### FARM DRAINAGE CONTRACTORS' SHORT COURSE SET

A short course for farm drainage contractors will be held on the University of Minnesota's St. Paul campus, Thursday and Friday, February 24-25.

Announcement comes from J. O. Christianson, director of short courses. Course chairman is Curtis L. Larson, assistant professor of agricultural engineering.

Thursday morning's program includes a talk on "Your Future in the Farm Drainage Business," by Philip W. Manson, professor of agricultural engineering, and discussions on the future of farm drainage by Minnesota contractors.

Thursday afternoon's program centers around machinery buying and maintenance and several demonstrations, including repairing and hard surfacing machinery parts; engine maintenance; figuring tile grades and cuts; checking and adjusting a level, and an exercise on testing and judging drain tile.

Friday's program includes talks on installing water and sewage disposal lines, soil problems, trouble points in tile systems, planning mutual drainage systems, credit in farm drainage, proper record keeping and income tax and social security law changes affecting contractors.

A complete program of the course is available free from the Short Course Office, Institute of Agriculture, University of Minnesota, St. Paul 1.

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Immediate Release

#### HONEYBEES HELPFUL IN ALFALFA POLLINATION

Higher 1954 alfalfa seed yields from the University of Minnesota's northern experimental plots indicate that honeybees can be very helpful in pollination.

This word came today from Fred G. Holdaway, a University entomologist and chairman of a group of entomologists, soils specialists, agronomists and plant pathologists studying northern Minnesota's legume seed growing industry.

He says that although honeybees increase seed yields of alsike, red and sweet clover, they have been "on probation" in our alfalfa seed production because they often prefer other plants to alfalfa.

Western states seed growers, however, get high alfalfa seed yields with honeybee pollination--apparently because there are so few other flowers available to their bees. We should be able to use honeybees as efficiently, Holdaway says, if we can learn to adjust alfalfa flowering time so that other flowers are not available to the bees. This year's studies indicate that Minnesota scientists may soon be able to do this, he says.

Holdaway explains that to set good seed, the pollen-containing parts of alfalfa flowers--the florets--must be tripped. This releases pollen, which is carried on the bee's body to fertilize other plants and produce seed.

Honeybees visit florets seeking nectar or pollen, but don't trip them as often as leaf-cutter bees or bumblebees. For example, nectar-gathering honeybees seldom trip florets--they learn to work so they don't touch the tripping mechanism. However, inexperienced honeybees trip most of the florets they visit.

Pollen-gathering honeybees, of course, trip most florets they visit--they must to get pollen. Unfortunately, pollen-gathering honeybees are not abundant in Minnesota--most of our honeybees want nectar.

Thus, the problem is to time the alfalfa's flowering so its flowers are the most readily available for honeybees--or to arrange that nectar-gathering honeybees trip most of the flowers before they learn to get nectar without tripping.

Why do nectar-gatherers learn to avoid tripping the alfalfa floret? That's anybody's guess, says Holdaway. Maybe the bee wants to avoid the surprise smack on the head she gets when she trips the floret.

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#### IMPORTANCE OF DRAIN TILE TESTING

By Philip W. Manson, Professor of Agricultural  
Engineering, University of Minnesota

Minnesota Farmers in 1955 will buy over 40,000,000 feet (roughly 8,000 miles) of farm drain tile. This represents an investment of some 10 to 15 million dollars for sub-surface drainage.

Actually the quality of the drain tile you buy may determine if your drainage system will give satisfactory service for 10 years, or less, or for 50 to 100 years, or more. It would be extremely poor economy to select low grade tile just because it is a cent or two cheaper per foot of length.

Tile tests, conducted by the University of Minnesota or by other testing laboratories, will show you whether or not the tile you buy have been manufactured according to high standards.

Since 1921, the Minnesota Legislature has appropriated funds to help support a research program at the Institute of Agriculture, University of Minnesota, to improve the durability of drain tile. A small part of these funds has been used for the Minnesota drain tile testing program that helps you select high quality tile.

#### BUYING TILE

For ordinary soil exposures where there is not an abundance of soil acids (pH of 6 or lower) or where the soil, or soil water, does not contain too much magnesium or sodium sulfates (not in excess of 3,000 ppm), either clay or concrete drain tile of "Standard quality" can be used without any special precautions.

Clay tile are not affected by acid or alkali action. However, poor quality clay tile may fail from freezing and thawing action if they are placed at shallow depths (2.5 feet or less) or if they are left on the ground during the winter before installation.

Concrete tile are but little affected by freezing and thawing action. However,

concrete tile are affected by strongly acid or alkali soils so certain manufacturing precautions should be followed if the tile are used in these soils.

#### CONSULT DRAINAGE ENGINEER

When drain tile are placed in deep and wide trenches, the tile must be strong enough to withstand the heavy load. A reliable drainage engineer can answer questions relative to any unusual exposure condition and can recommend the kind and quality of tile best suited for the job.

Never buy tile that do not at least meet "Standard Quality" specification. It is poor practice to deal with a tile manufacturer who does not have his product regularly tested and the results posted. Examine the manufacturer's test sheets and note what quality tile are being manufactured. Reject all drain tile that do not meet the "Standard Quality" specifications.

If the drain tile have been tested by the Agricultural Engineering Department, Institute of Agriculture, University of Minnesota, test summary shown here will appear in the lower right-hand corner. A check mark on this form will indicate the tile quality.

Be sure that the tile tested are of "Standard Quality" or "Extra Quality" and not below "Standard Quality." All testing laboratories will indicate the quality of the tile tested.

Since but few clay tile are manufactured in Minnesota, most of our drain tile are concrete. During 1954, many Minnesota concrete drain tile manufacturers affiliated themselves with a national organization known as the "American Concrete Agriculture Pipe Association." To become and remain a member of this organization in Minnesota, the manufacturer must be producing tile of at least "Standard Quality" and must have tile tested in accordance with procedures as recommended for Minnesota by the Agricultural Conservation Program (A.C.P.) Soil Conservation Service (S.C.S.) and the Agricultural Engineering Department at the University's Institute of Agriculture. Generally, a concrete drain tile plant that is a member of the association is endeavoring to produce only high quality drain tile.

The figure shows the appearance of a section of well made concrete tile. The coarse particles and the somewhat rough texture are indicative of high quality concrete tile.

Under the 1954 Agricultural Conservation Program, no farmer was eligible for tile drainage payments unless the tile he used met A.S.T.M. "Standard Quality" specifications. The 1955 Agricultural Conservation Program does not specifically include drainage in the over-all Minnesota program, but individual counties may request that farm drainage be included. If you are in a locality that includes drainage payments in the Agricultural Conservation Program, make certain that the tile purchased meets "Standard Quality" to qualify for drainage payments.

If you are interested in the manufacturing steps and the ingredients necessary to the making of high quality concrete drain tile, write the Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul 1, for Station Bulletin 426, "Making Durable Concrete Drain Tile."

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CARRY-OVER EFFECTS OF PHOSPHATE FERTILIZERS

By. A. C. Caldwell, Associate Professor of Soils  
University of Minnesota

HOW MUCH PHOSPHORUS of phosphate fertilizers remains in the soil in a form usable by plants? You can rest assured that with most phosphate fertilizers, some of the phosphorus that isn't used by the crops right away stays in the soil in an available form for later use. This is particularly true for phosphate fertilizers such as ordinary and concentrated superphosphate, calcium, metaphosphate, and liquid phosphoric acid.

We base these conclusions on the results we obtained using radioactive phosphorus in our research. Actually we've adapted tools of war--radioactive elements--to peacetime uses in agricultural research.

Until quite recently we measured the residual or lasting effects of phosphates applied to the soil by increases in yield or phosphorus content of crops or by both. Within the past few years, however, radioactive phosphorus in the form of phosphate fertilizer has become widely available. This material has provided a third, and quite precise, means of estimating the carry-over effects of phosphate fertilizers. To explain how radioactive phosphate fertilizer is actually used in determining how much available phosphate remains in the soil, it will be helpful to assume that the plant has only two sources of phosphorus for growth:

1. Soil phosphorus--This consists of soil minerals, organic phosphorus, and the residues of phosphate fertilizers applied in previous years.
2. Phosphorus from fertilizer recently applied--This fertilizer may be applied at planting time or immediately before.

If there is plenty of soil phosphorus in a form that the plant can use, the plant will not take up much of the recently applied fertilizer phosphorus. On the other hand, if there is very little available phosphorus in the soil, the plant will

largely use phosphorus from the fertilizer applied at seeding time.

#### HOW RADIOACTIVE PHOSPHORUS IS USED

Now the problem is to distinguish between the phosphorus in the plant that came from the fertilizer recently applied and the phosphorus the plant obtained from the soil. This is where radioactive phosphorus comes in. If some of the recently applied phosphorus is made radio active and the plant takes up any of it, the plant becomes radioactive. The amount of radioactivity is proportional to the amount of fertilizer phosphorus used.

When the radioactivity of a plant has been measured, it is possible to tell accurately the amount of phosphorus a plant takes from the soil and how much from the fertilizer applied at seeding time. The absorption of phosphorus by the plant from fertilizer has been used by Maurice Fried and L.A. Dean, U. S. Department of Agriculture workers in Beltsville, Maryland, to develop a formula for determining the number of pounds of available phosphorus in the soil.

In Minnesota, we have used radioactive phosphate fertilizer and the formula mentioned above to measure the residual effects of various sources of phosphate fertilizers. We applied these fertilizers on experimental plots on a Mower County farm and at the University's West Central Experiment Station at Morris.

#### SOME PHOSPHATE FERTILIZERS REMAIN AVAILABLE IN THE SOIL

Some of the different sources of phosphate fertilizer used in the Mower County experiments were ordinary and concentrated superphosphate, calcium, metaphosphate, liquid phosphoric acid, and rock phosphate.

We found that plots to which 1,200 pounds per acre of superphosphate had been applied had twice as much available phosphorus as plots which had received 3,000 pounds per acre of rock phosphate. As a matter of fact, soils to which rock phosphate had been applied apparently had no more available phosphorus than soils which had received no fertilizer.

Liquid phosphoric acid and calcium metaphosphate had about the same residual availability in the soil as superphosphate.

From our knowledge of the yield of crops from these plots, the phosphorus

content of the plants, and the amount of fertilizer phosphorus that is still available, we can calculate how efficiently the phosphate fertilizers were used. It was found, for example, that about 50 per cent of the superphosphate applied had either been used by the crop or was still in a form in the soil usable by plants.

Experiments at the West Central Experiment Station showed that long continued use of superphosphate and barnyard manure had built up considerable phosphorus in the soil. Soils which had received a combination of superphosphate and manure had the greatest amounts of available phosphorus. Soils to which only rock phosphate had been applied had little more available phosphorus than those which had received no fertilizer at all.

And so, once more, fundamental research, which at the first glance might have appeared to have no practical application, has provided a means of solving a very practical problem. Basic investigations into the nature of the atom and its energy relationships have led to widespread use of a radioactive element, phosphorus, which has helped answer the question, "How much phosphorus in a phosphate fertilizer remains available to plants in the soil?"



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### ANIMALS WITHIN ANIMALS

By Henry J. Griffiths, Professor of Veterinary  
Medicine, University of Minnesota

"ANIMALS WITHIN ANIMALS"—internal parasites—today are costing American farmers a quarter of a billion dollars a year. On your farm alone this can mean the price of a television set, a long-awaited trip, a new piece of small machinery.

You could immediately ask why more is not done to control these pests and prevent such losses. The reason is largely that the parasite is insidious in the way it attacks. The parasite's life is usually a compromise between getting enough nourishment to maintain and propagate itself and at the same time not killing, debilitating, or reducing the numbers of its host which provide it a home and free ride.

Food of the right kind at the right time is all important in all animal societies. A dead animal is of little use to the adult parasite. For internal parasites the question of what to do when the animal dies is always present. In most instances, the adult parasite is so specialized to living within the animal that it is unable to cope with such a situation.

#### WHAT IS A PARASITE?

A parasite may be described as "one who lives in or on and at the expense of another"; the one harboring the parasite usually is called the "host".

An ideal parasitic life would be in harmonious state of existence between a host and its parasites. Such a situation seldom exists. Naturally, the parasite wishes to do as little harm as possible, but even with these good intentions, it is rarely able to avoid damaging its host.

Damage may be done by stealing the host's food (provided and paid for by the farmer), by feeding on and destroying the host's tissues, by causing mechanical

obstruction, or by secreting substances (by products of its own metabolism) harmful to the host.

### MANY KINDS OF PARASITES

Parasites exist in practically all branches of the animal kingdom. They range from the minute forms which cause such diseases as malaria, coccidiosis, and Texas fever to the larger forms such as tapeworms.

Species of parasites are found in four large groups within the animal kingdom:

Protozoa include the single-celled microscopic forms. Some of these are responsible for important diseases of man and animals, such as coccidiosis, amoebic dysentery, and malaria.

Arthropods include such forms as the insects, mites, and ticks. Many live on the skin and attack the host to suck blood for nourishment. Some, such as the ox warbles, bots of horses, and others, spend part of their life inside the body. Among the insects are mosquitoes, flies, fleas, and lice which have adopted various types of parasitic habits.

Worms make up the third and fourth groups. They are not related to the common earthworm or angleworm. In this large group known as helminths (worms) there are two distinct groups of parasites, roundworms and flatworms. Flatworms make up the groups commonly known as flukes and the tapeworms.

The adult parasitic worms cannot live a free life; they must live as parasites. To continue their species they lay hundreds of microscopic eggs. These eggs do not develop in the same host in which they are laid. If they did, the host animal would soon be unable to support the large population. Instead, the eggs pass out with the droppings from the host animal, develop, and await entry to another animal.

Centuries ago this was difficult since flocks and herds roamed and grazed over large areas. Eggs never moved far from where they fell so their chances of being picked up by a host animal were very small. Some worms lay thousands of eggs daily, and by natural selection the more prolific parasites have survived and in-

creased through the years.

Other life cycles developed. Flies, beetles, blood-sucking insects, snails, and slugs transported or acted as intermediate hosts for young worms. Some intermediate hosts actually provide parasites the opportunity to multiply before getting back to their final hosts.

Man yet is to discover all the ways these parasites work and live.

The worm parasites find their homes in different places (organs or tissues) in many different animals. Sometimes they go astray and fail to reach their desired destination. The greater number of the worm parasites live in the intestine although others invade the blood stream, heart, kidney, lungs, eyes, in fact, practically any organ or tissue of the body.

Parasitism usually hits domestic animals harder than wild animals because there is more contact between and concentration of animals. Where one blade of grass grew formerly, a dozen are now expected. The pasture burden of livestock is increased; this in turn builds up the parasite load and increase chance of infection. Consequently preventive measures must be taken to keep the parasite problem under control.

The parasite problem is an ever increasing one for the livestock farmer. Livestock is easily moved not only in the community but also throughout the nation and from country to country. Parasites move with the livestock, bringing in new species never before a problem in a certain area. Now with international air transportation, the chances of introduction of new parasites are greater.

Many livestock producers are familiar with the larger parasitic forms which they see in the droppings of animals. Few, however, realize there are a multitude of different small parasitic worms infecting domestic animals and birds. Most of these are less than an inch long, are colorless, and are extremely difficult to see. Yet in many cases they are much more harmful than the larger forms and are responsible for heavy losses of meat, growth, wool, horsepower, and egg production.

Severe parasitic infections prevent young stock from growing properly and cause a general unthriftiness and lack of condition or finish. They are continually sapping the strength of the infected animal, making it more susceptible to the other diseases, whether they be due to bacteria, viruses, or malnutrition.

#### CAN PARASITES BE CONTROLLED?

What can be done to control these parasites? Until recently few effective drugs were available to kill or drive out these parasites from the host animal's body.

Today, we are able to kill some of these worms by the use of drugs known as anthelmintics. Frequently the cure is too late to offset the damage already done, but it will stop further damage for the time being.

We must remember that drugs or chemicals that will kill parasites may involve considerable danger and risk to the life of the host animal. The parasites are sometimes in a situation where administration of a drug would do more harm to the host than the parasite.

Since no two parasites are exactly alike in structure, life cycle, mode of life, nutritional requirements, and habits, no one drug is effective against a large number of parasitic forms. In some cases, a drug may be effective in removing a certain group of closely related helminths, but, in general, a specific drug has to be used to combat a specific parasite.

Prevention of parasites is a far better control than cure by treatment. To keep parasites from entering the body we must know what the worm does outside the animal body and then plan an attack.

Most of these minute forms react in a definite manner to chemical and physical stimuli. Once we know what some of these are, we are able to alter or interfere with them in some way to stop their development. For example, in the case of a liver fluke of sheep or cattle, the fluke's development outside of its host is dependent upon a certain kind of snail which acts as its intermediate host.

By killing off the snail the disease could be wiped out. Many worm forms will not survive the severe cold of northern winters so in early spring, pastures may be free of certain parasitic forms. Other forms, when passed in the droppings of the infected animal, do not become infective on pasture for a definite time or may be killed if exposed to dry weather and hot sunlight. With such knowledge, prevention can be practiced cheaply and effectively.

Valuable practices in preventing parasitic infections are pasture rotation, mixed grazing, fencing off low-lying areas and swampy land, and the use of raised water troughs and well constructed feed racks. Drugs alone will not control parasites. The use of preventive methods together with treatment will give effective control.

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BREEDING OATS FOR STEM RUST RESISTANCE

By Will M. Myers, Head, Agronomy Department  
Animal Husbandry, University of Minnesota

The UNIVERSITY of Minnesota Agricultural Experiment Station has developed new experimental lines of oats that show great promise in the control of dread black stem rust with resistant varieties.

These new lines themselves probably cannot be used on Minnesota farms. However, they are being used in crosses to develop new varieties resistant to the stem rusts we now have.

These new lines came from two crosses:

1. (Landhafer x (Mindo x Hajira-Joanette)) x Andrew
2. (Landhafer x (Bond-Rainbow x Hajira-Joanette)) x Clinton

These lines are resistant to all known races of black stem rust at moderate temperatures (below 80-85° F.) and are resistant at higher temperatures to all races except 4, 6, and 13.

Behind the story of these two crosses are genes called the White Russian, Richland, and Canadian factors.

For many years two principal types of stem rust resistance were known. White Russian and certain other varieties were resistant to races 1, 2, 5, 8, 9, 10, and 11. Richland and certain other varieties were resistant to races 1, 2, 3, 5, 7, 7A, and 12. It was also known that each of these types of resistance was determined by a single genetic factor, simply called the White Russian and Richland factors.

Together these two factors control resistance to all known races except 4, 6, and 13. These latter three have not been of major importance. Unfortunately until recently no one has been able to combine these two types of resistance in a single variety. A cross between varieties carrying the White Russian and Richland

factors always resulted in true breeding lines with one or the other type of resistance but not with both.

#### ANOTHER STEM RUST FACTOR

A third factor for stem rust resistance is found in certain selection from Hajira and in hybrid lines such as Hajira-Joanette. This gene is commonly called the Canadian factor. Plants carrying this factor are resistant at moderate temperatures to all known races of stem rust except 7A. When such plants are grown in the greenhouse at temperatures of 80-85° F., however, they are susceptible to stem rust. Although usually resistant in the field, they have been susceptible in one year when higher than normal temperatures prevailed.

Studies at the Minnesota Agricultural Experiment Station have shown that the Canadian factor was inherited independently of the White Russian and Richland factors. Consequently it could be combined with either of them in homozygous lines. This was done, combining the White Russian and Canadian factors in a cross of Minde x Hajira-Joanette and the Richland and Canadian factors in a cross of Bond-Rainbow x Hajira-Joanette. Subsequently, lines selected from these two crosses were crossed with Landhafer to combine crown rust and stem rust resistance.

#### NEW CROSSES MADE

The next step, made to obtain improved agronomic characters, was taken in 1950. Selections from Landhafer x (Minde x Hajira-Joanette) and Landhafer x (Bond Rainbow x Hajira-Joanette) were crossed with Andrew and Clinton, respectively. In 1951, third generation ( $F_3$ ) lines from these crosses were tested in the field to an epidemic of stem rust involving both races 7 and 8.

Some of the plants stood up well to this onslaught. It was assumed that these resistant plants carried the Canadian factor which causes, with moderate temperatures, resistance to both races 7 and 8. In addition some of these resistant plants were expected to have the White Russian factor and others the Richland factor inherited from one of their parents.

To see if the White Russian and Richland factors were present, seedlings of fourth generation ( $F_4$ ) lines from selected  $F_3$  plants were grown in the greenhouse and subjected to temperatures of 80-85° F. after inoculation with race 8 and race 7. At that temperature, the tested plants would be resistant to race 8 only if they carried the White Russian factor and resistant to race 7 only if they carried the Richland factor.

#### TWO LINES RESIST RACES 7 AND 8

Because of earlier indications that the two factors could not be combined  $F_4$  lines resistant to both races 7 and 8 were not expected. Surprisingly two  $F_4$  lines breed true for resistance both to race 7 and 8. Several others bred true for resistance to one race and segregated for resistance to the other. What had previously been considered impossible had now been accomplished--the White Russian and Richland factors had been combined in a true breeding line.

Subsequent studies of crosses of these lines with Gopher, Clinton and Andrew have shown that these two factors are linked in the new lines derived from (Landhafer x (Mindo x Majira-Joanette)) x Andrew, with probably less than 1 per cent of crossing-over. This means that in crosses involving these "combined resistance" lines, the White Russian and Richland factors will be transmitted to the progenies essentially like a single factor.

As pointed out before, the White Russian and Richland factors together produce resistance at both moderate and high temperatures to races 1, 2, 3, 5, 7, 7A, 8, 9, 10, 11, and 12, i.e., to all known races except 4, 6, and 13. The new lines also carry the Canadian factor, providing resistance at moderate temperatures to these latter races, 4, 6, and 13, as well as all other races of stem rust except 7A.

It may seem from these developments that we should no longer suffer losses from epidemics of stem rust of oats. It is hoped that this will be the case. However, it is entirely possible that new races of rust may develop. These may be capable of attacking even varieties in which these three different kinds of re



sistance are combined.

#### RUST FUNGI VARY

The rust fungi, themselves, are variable, and it is possible that new races may appear in North America in any one of three ways: by hybridization between present races on the barberry bush (the alternate host), by infestation from other parts of the world, or perhaps by mutation from present races.

Nevertheless, these new lines are the greatest advance yet made in development of oats with stem rust resistance.

These new lines are probably not, themselves, good enough in yield, grain quality, and other characteristics to make them suitable as recommended varieties to grow on your farm. They are, however, extremely valuable as parental material for the development of new varieties that can be recommended. Actually they have already been used in extensive crosses for this purpose.

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W. M. Myers is head F.K.S. Xoo is research fellow, Department of Agronomy and Plant Genetics; M. B. Moore is instructor, Department of Plant Pathology and Agricultural Botany; and E. J. Roberts is USDA agent stationed at the University of Minnesota.

Until 1952 and, therefore, during the period in which the combined resistance lines referred to here were developed, the oat breeding project was under the leadership of Dr. H.K. Hayes, then Chief of Division of Agronomy and Plant Genetics and now Professor Emeritus.

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THE CHURCH IN THE RURAL FRINGE

By Roy G. Francis, Assistant Professor of  
Rural Sociology, University of Minnesota

What is happening to the church in the suburbs? How is it affected by the increasing number of people who change places of residence and by the increasing amount of suburbanization?

Since migration means a loosening of at least some ties, and since suburban living is so new to most suburbanites that we cannot yet speak of binding traditions, many people wonder if these two population trends are for good or bad. Particularly, many wonder what is happening to the church, in the case of those who have moved to the suburbs.

To answer some of the questions of the church in the rural-urban fringe, a study was conducted by the Department of Rural Sociology, University of Minnesota. Some 200 suburbanites were interviewed.

The first fact that strikes one is the reservoir of church experience upon which both the church and the migrant can draw. Indeed, only 15 per cent of the total sample participated in church affairs less after migration than before. Further, it can be safely predicted that many of these will ultimately begin again to participate in religious affairs. This prediction is substantiated by the way in which suburbanites get started in going to church when they move into a new community.

Clearly, a recent arrival in a neighborhood may be formally contacted by a church representative or not. Table 1 shows the relation between change in participation and whether a formal contact is made. Note that there is no real difference. The differences which seem to exist are sheer accidents, due mainly to the fact that a sample rather than the whole suburb was studied.

This does not mean that contacts are unimportant: it means, in part, that many migrants do not wait for a contact to be made before participating in church affairs. Instead, many seek out the church of their choice and get established in their neighborhood that way.

Of the contacts that were made, not all led to an increase in church participation. Table 2, carrying somewhat of an illusion, shows that if the contact is made by a church worker or a friend, church participation is likely to increase. Contact by the pastor has no appreciable effect upon participation. This is the illusion we mentioned. The pastor tends to contact those who have not responded to other contacts.

Nevertheless, the significance of contact by someone other than a member of the religious hierarchy is important. It tends to prove to the migrant that he has found a home rather than a house to live in. Images and associations of a happy sort are re-aroused. And he responds accordingly.

Once the suburbanite has begun again to participate in his church, the role of the minister changes. Now the visit by the pastor is of importance. Table 3 clearly shows that home visits by the pastor lends itself to increased participation by the suburbanite.

This does not mean that the influence of his friends is now of no importance. Instead, the data indicates that the longer a person resides in the community, and hence the stronger his roots are, the greater his participation in church affairs. This suggests that the church is truly an integral part of both the individual's behavior and that of his culture.

Man is influenced by his fellows, and, in turn, influences the behavior of others. If this argument is sound, then we ought to expect that the behavior of those most dear to him will influence his behavior the most. Accordingly, we would expect that as one's mate changes in church participation so will he. Table 4 proves this to be true.

If, after moving to a new place of residence, one's wife goes to church more often than before, then the husband (or vice versa) will go to church more often.

In short, those who "view with alarm" seem to be mistaken. The religious experience runs too deep in America to be rooted out by a mere shift in residence. Then, too, the institution itself takes steps to insure continuity of its existence.

The factors to stimulate and reinforce church participation are not lost in migration. They exist and grow in the people themselves. This might be due to the fact that one of the needs of humans satisfied by religious experience exists in the people themselves.

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Roy G. Francis is assistant professor of rural sociology; Charles E. Ramsey is former assistant professor of rural sociology; and Jacob E. Toews is former graduate student in rural sociology.

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### IS EARLY WEANING PRACTICAL?

By Lester E. Hanson, Professor of  
Animal Husbandry, University of Minnesota

"Is EARLY WEANING practical?" That question confronts many livestock producers. And it cannot be answered easily. It will depend on conditions on individual farms. If you do decide to wean early, the tips on the opposite page will help you do a better job.

The Animal Husbandry Department of the University of Minnesota did, however, conduct extensive feeding trials in 1954 that will give many clues to the answer to the question. Some of these trials apply directly to the livestock producer; others apply to the feed manufacturer or dealer but, of course, affect the livestock producer's operations.

Generally speaking, weaning pigs at three weeks is practical when good management practices are followed and when reasonably good facilities are available. In our experiments, however, early weaning did not lower costs.

We weaned 500 pigs when they were about three weeks old. We divided these in groups and fed each group different formulas (usually in meal form) until they were eight weeks old.

Other pigs were weaned at eight weeks so we could compare how well the early weaned pigs did later on in life. We compared the gains made by early weaned pigs and late weaned pigs from the time they were eight weeks old until they were 23 weeks old.

#### RATIONS FOR EARLY-WEANED PIGS

This is what we found in our trials with our early weaned pigs:

1. A 20 per cent protein formula produced excellent growth. A 16 per cent formula was below needs for best growth, and the results with more than 20 per cent protein varied.

2. Aureomycin or procaine penicillin at a level of 40 grams per ton and arsanilic acid at a level of 120 grams per ton of feed increased the average eight-week weight from 3 to 7.5 pounds without affecting feed deficiency.

3. Four feed flavors which were tested did not affect either rate of gain or feed efficiency. Two of these, anise-molasses and molasses-fortifier, were also used in studies of preference. When the pigs were offered a choice they preferred unflavored feed in a ratio of almost 2:1 over either flavor. The other two flavors tested were "fruit flavors." One was in liquid form; the other was in dry meal carrier.

4. When pigs were offered a choice of formulas which contained one of these no sugar, 5 per cent sugar, or 10 per cent sugar—81.5 per cent of the total feed consumed was the 10 per cent sugar formula. In two other trials pigs offered a choice of no sugar, 10 per cent sugar, or saccharin (equivalent to 10 per cent sugar) clearly preferred the 10 per cent sugar formula. Saccharin-sweetened feed had no appeal for the pigs. In tests where the pigs had no choice the addition of sugar to the formula was of questionable value.

5. In a single experiment the substitution of dried condensed fish solubles for part of the tankage increased the rate of gain 15 per cent and decreased the feed requirement per pound of gain 10 per cent. In another test the substitution of rolled oats for 40 per cent of the corn in the formula did not affect the rate or efficiency of gain.

6. In four experiments the addition of 5 per cent added fat in the form of a lard-lecithin mixture did not affect the rate of gain but did increase costs.

7. Pigs weaned at three weeks get along best if they are fed in small groups (not more than 10 or 12). They need a minimum of 5 to 6 square feet of floor space per pig until they are eight weeks old.

#### U. OF M. FORMULA 23 GIVES GOOD RESULTS

On the basis of the many experiments completed in 1954 we believe that U. of M. Formula 23 will give good results when fed to pigs weaned at three weeks (weighing 10 pounds or more), provided that good management practices are followed.

This formula will be modified as more research results become available.

U. OF M. FORMULA 23

	<u>pounds</u>
Ground corn . . . . .	31.5
Rolled oats . . . . .	20.0
Sugar . . . . .	10.0
Soybean oil meal. . . . .	16.0
Tankage . . . . .	5.5
Dried condensed fish solubles . . . . .	2.5
Dried skim milk . . . . .	12.0
Steamed bone meal . . . . .	1.0
Salt (trace mineralized). . . . .	0.5
Vitamin premix* . . . . .	1.0
Antibiotic or arsenic acid† . . . . .	Yes

THREE-WEEK VERSUS EIGHT-WEEK WEANING

After various experiments had been completed with approximately 300 pigs from the early 1954 spring crop, it was clear that three--week weaning was practical. These experiments, however, did not provide for a comparison of early versus eight-week weaning. We used the last 24 litters of the spring crop to make such a comparison.

The litters were divided as soon after birth as possible and cross-switched between pairs of sows, so that each sow of a pair suckled one-half of her own and one-half of the other sow's litter. At three weeks the pigs nursing one sow were weaned. The other "litter" continued nursing the other sow until the pigs were eight weeks old.

All pigs weaned at three weeks were fed the same feed mixtures. The principal mixture fed was similar to Formula 23 except that it contained 5.1 per cent added fat. Approximately half of the pigs weaned at eight weeks were creep-fed the same feed mixtures as the early weaned pigs. The rest of the pigs weaned at eight weeks were creep-fed a much simpler mixture.

SIMPLE CREEP MIXTURE PRODUCES CHEAPEST GAINS

All of the pigs made good gains. The first week of the experiment the pigs weaned at three weeks fell behind the pigs not weaned. However, they caught up later and reached the same eight-week weight as the pigs weaned at eight weeks. Within the various groups, the pigs nursing the sows and fed the more complex feed

mixture made the most rapid gains and the most expensive gains. The pigs fed the simple creep mixture and weaned at eight weeks made the least rapid gains--but the cheapest gains.

To find comparative costs, we used current feed prices to figure the value of each formula fed. The 12 sows that nursed their litters for eight weeks gained a total of 302 pounds during the five-week experimental period. The sow gain was valued at 18 cents per pound and deducted from the total feed cost for the sow-raised pigs (table 1).

When the pigs were about nine weeks old they were sorted again and placed into eight lots on bromegrass pasture. There were four lots of three-week-weaned pigs and four lots of eight-week-weaned pigs. Four rations were self-fed for a period of 14 weeks.

Table 2 shows clearly that the pigs weaned at eight weeks made faster and more efficient gains than the pigs weaned at three weeks. The superiority of the eight-week-weaned pigs is apparent with each ration feed. The reason (or reasons) for this difference is not known.

It will be noted that six pigs died in the three-week-weaned group. Five of these deaths were due to erysipelas; the death of the sixth was due apparently to a weak heart. One pig in the eight-week group died after a short fight with another pig after going on pasture.

Three-week weaning of pigs is practical when good management practices are followed and when reasonably good facilities are available. However, we have not yet succeeded in producing market pigs at lower cost by this method of management.

#### TIPS ON EARLY WEANING

Proper Management is essential with weaning at three weeks. Here are some management suggestions based on our experience at the University of Minnesota.



1. Provide comfortable, draft-free quarters. The most suitable temperatures have not been determined. We housed our pigs in a barn which was kept at about 65° F. and provided each pen of five or six pigs with a 250-watt heat lamp. This was adequate for conditions prevailing in the winter and spring of 1954.

Pigs probably will do well even at lower temperatures if they are adjusted to these temperatures gradually and if the quarters are draft-free and dry.

2. Limit the number of pigs in a pen. Pigs do best, especially the first week, if the number in a pen is limited to 10 or 12 animals. Large numbers of newly weaned pigs in a single pen do not learn to eat as readily as smaller numbers. We even noted an advantage in groups of five or six as compared with 10 or 12. Ten pigs is a suitable number for an 8' x 8' pen.

3. Provide ample space. Provide at least 5 square feet of floor space per pig. More space is required by the time the pigs are eight weeks old. We have raised to eight weeks seven pigs in a 4' x 8' pen. This results in undesirable crowding and makes sanitation difficult.

4. Keep pens clean. Thoroughly clean and disinfect pens before placing pigs in them. Then the pens must be kept clean. We have found once-a-day cleaning satisfactory.

5. Keep pens well bedded with clean bright straw. Ground corn cobs may be satisfactory. Pigs should be well insulated against potentially cold concrete floors. Some use a wood overlay but this may increase sanitation problems.

6. Treat scours properly. A water medication with a soluble antibiotic or arsenic acid works well. It is practical to fortify pig starters with sufficient levels of these drugs to take care of all situations. Sick pigs may eat very little feed, but they will drink water when they are too sick to eat. Consult your veterinarian first when pigs become sick. You may have a serious disease that can be handled by your veterinarian but which may get out of hand if not properly diagnosed and treated in its early stages.

7. Provide pig-size equipment for the small pigs. Small self-feeders and water fountains are available for young pigs. Shallow troughs and pans are not satisfactory because the pigs get into them, waste feed, and increase the sanitation problem.

8. Keep feed and water easily available to pigs. In one experiment we found that moving the location of the feeder about 2 feet decreased the time required for the pigs to learn to eat. A small attraction light near the feeder or a heat lamp in a cool building will encourage the pigs to start eating.

9. Provide pigs, if possible, with a small self-feeder in the farrowing stall or creep before they are weaned. They then will learn to eat before weaning, lessening the shock of early weaning.

10. Pay attention to details. Early weaning does not require a lot of labor although careful attention to detail the first week after weaning is important.

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PHOSPHATE BOOSTS  
PASTURE YIELDS

Phosphate fertilizer is a proven production-builder on rotation and renovated permanent pastures. Have you thought about how you might use phosphate this year?

Professor A. C. Caldwell reports University of Minnesota experiments on farms in 21 phosphate-hungry counties in western Minnesota have increased yields of all crops in their rotations and the beneficial effect has lasted three or four years after the first year's treatment.

Also, small grains and flax ripened more uniformly on phosphate-treated areas than on test plots left untreated and phosphate speeded up corn maturing from six to eight days over the usual time.

Livestock sensed the improvement, too--cattle preferred hay grown on phosphated ground to that from untreated areas. They "turned down" grass from unphosphated ground and grazed only phosphated areas.

Measurements show the phosphorus content of alfalfa used for hay or pasture was increased about 21 per cent above alfalfa grown on untreated land.

Other tests show protein production was 47 pounds higher per acre on phosphated areas than on untreated ground.

Phosphate improved the legume and legume-grass stands in all cases and with all types of hay and pasture crops. The increased legume and legume-grass acreage increased the soil's organic matter and available nitrogen to provide a better fertility balance with "residual" phosphate that remained in the soil after the first year's application.

Phosphate reduced erosion on the more rolling farms because regular use of a good crop rotation and regular addition of organic matter to the soil built up a healthy soil texture and productive ability.

U. OF M. AGRONOMIST  
EXPLAINS TWO NEW  
PASTURE METHODS

Ever hear of "zero pasture" or "ration-a-day" or "daily rotational grazing"? These are terms for two new systems of pasture management now being tried by Minnesota farmers. Both systems give good promise of far better pasture feeding.

Rodney A. Briggs, the University of Minnesota's extension agronomist, defines "zero pasture" as a system that uses a central feeding lot. In one version of the system, green feed is made available to the stock each day--the pasture is brought to the cow.

In the second, preserved feed -- silage or hay -- is fed in the feed lot all year around. Those who've tried "zero pasture" say it wouldn't be possible, of course, without modern automatic unloaders and self-feeders. Its advantages - no loss from trampling and manure contamination, plus no need for fencing.

By harvesting at exactly the right time, the farmer gains top feed value from every acre of grassland, Briggs points out.

The "ration-a-day" or "daily rotational grazing" pasture system has proved highly successful on many Minnesota farms. It involves using electric fences so that animals have a fresh section of pasture each day. Fields are laid out in 5 or 6 rectangular rotation pastures.

The farmer strings electric fence lengthwise across one of the pastures and lets in the animals. Next day, the fence is moved enough to allow grass for another day.

Some farmers have found this system increases yields and animal intake and more than pays for the time and trouble of moving the fence each day.

Although both systems are quite new, they reflect some of the advantages Grandpa had in his day--that is, bringing in green material each day or staking a cow out on a new section each day.

Briggs' tip to farmers thinking of revamping their pasture setups: "Weigh all the practical considerations -- labor, machinery and expense -- before going 'whole hog' on any new system."

HAY AND SILAGES  
FOUND GOOD WINTER  
BEEF CALF FEED

Several common Minnesota silages were found to be efficient, low-cost wintering through rations for beef calves in recent University of Minnesota experiments.

The experiments began in October, 1953, when 50 good-grade Hereford steer calves were brought to the University's rolling, 210-acre Beef-Cattle Grassland Farm on the Rosemount Agricultural Experiment Station.

Professor A. L. Harvey started six lots on different rations. Each lot was fed five pounds of good alfalfa hay per head per day to start. One lot remained on hay, being given as much as they would eat as their appetite grew. Some calves eventually ate up to 13 pounds of hay a day.

Each of the other five lots went gradually on one of five silages -- pea vine, alfalfa, alfalfa-brome, corn and grass silage. Their hay was cut down gradually to about four pounds a day as they began getting silage.

By spring, 1954, Harvey found that the "hay-only" lot put on weight at the ideal pound-a-day for 12.1 cents a pound gain. Hay was the cheapest of the six rations, Cost per pound of gain on the others ranged from 13.1 cents on the corn silage to 14.3 cents on the alfalfa-brome silage.

As time went on, each silage had to be supplemented with corn and cob meal -- the corn silage group also received linseed oil meal -- to keep all the calves gaining a pound or slightly over a day.

Apparently calves do not have the ability to eat enough silage to meet their growth requirements and must have some other feed in addition.

Harvey's costs are based on these prices: alfalfa hay, \$20 a ton; alfalfa, alfalfa-brome and grass silage, \$7 a ton; corn silage, \$8 a ton; corn and cob meal, \$1.40 for 70 pounds; linseed oil meal, \$80 a ton; mineral mixture, \$48 a ton; common salt, \$25 a ton.

U. PIG STARTER  
RESEARCH AIMS  
AT IDEAL RATION

University of Minnesota animal feeding scientists are doing some "basic" research in finding the best ingredients for starting three-week-weaned pigs. Professor L. E. Hanson reports what they found in recent feeding tests with 329 spring-farrowed piglets.

1. Little pigs like sugar in their ration. Offered a choice, they ate 5.5 per cent of a no-sugar feed, 13 per cent of a five per cent sugar feed and 81.5 per cent of a 10 per cent sugar feed. The ration was the same in all three tests -- only the amount of sugar was different.

Groups of pigs given no choice -- that is, given only a no-sugar ration, a 5 per cent sugar ration, or a 10 per cent sugar ration -- gained about the same and used their feed equally well.

2. Saccharin, which is supposed to be about 300 times sweeter than sugar, didn't go over at all -- apparently it doesn't taste the same to pigs as it does to humans.

Offered a choice, pigs ate 7.6 per cent of a no-sugar ration, 7.1 per cent of a saccharin-containing ration and 85.3 per cent of a 10 per cent sugar ration. Again, the amount of sugar or saccharin fed has no effect on pigs' rate of gain or the feed's efficiency.

3. Two flavors, molasses fortifier and anise molasses, apparently had no taste-appeal for the piglets. When offered a choice, they ate twice as much unflavored feed as that containing either flavor. Anise is similar to licorice in taste.

Professor L. E. Hanson, who supervised the experiments, said the results don't rule out flavors as possible "eating encouragers," but the pigs happened not to like the two tested. He plans further tests with other flavors. Neither had any effect on rate of gain or feed efficiency.

4. Aureomycin, procaine penicillin and arsanilic acid each increased pigs' rate of gain, without affecting the feed's efficiency.

BALANCED STARTER  
PROVED VITAL IN  
U. POULTRY TEST

The importance of a balanced starter ration was demonstrated in an experiment at the University of Minnesota's poultry department recently.

A group of chicks were fed a protein-short diet consisting of 93 per cent yellow corn. By the end of 30 days, a third of them had died. Average weight of the survivors was only 56 grams, compared to 144 grams average for a normally-fed group.

Another group whose diet was left low on phosphorus didn't do so well, either. Forty per cent of the group died and the survivors weighed an average of 91 grams, compared to the 144 grams in the normally-fed group.

The protein-short chicks were "raunchy" looking and could be described as "short-tempered" and "irritable."

The phosphorus-short chicks also showed <sup>some</sup> pitiful symptoms. They had difficulty standing, a poor posture and generally "droopy" look. Phosphorus is important in building strong bones.

Professor Elton L. Johnson, head of the poultry department, designed the experiment to show feed dealers and manufacturers the effects of poor feeding. The several groups of chicks were on display during the University's annual animal nutrition short course in September.

Johnson says the experiment demonstrates the need for balanced feeding, not only of those rations made by feed manufacturers, but the final ration fed out on the farm.

U. OF M. TESTS BARLEY  
FOR HOG FEED

How about barley for hog feeding? Professor L. E. Hanson reports an experiment conducted last summer by University of Minnesota hog feeding specialists.

Using Kindred barley, they measured the feeding value of three types of barley kernels -- thin, virgin and plump -- and here's what they found:

Pigs fed a corn ration made the most rapid gains, but the difference in gains was less during the period from 125 to 200 pounds -- the fattening period, that is. Pigs fed virgin barley kernels made as good gains as those fed plump barley. Pigs fed thin barley kernels made the slowest gain in both feeding periods.

Amount of feed eaten per pound of gain was least on corn and highest on thin barley. Virgin and plump barley seemed equally efficient in producing gains on pigs under 125 pounds, but from 125 to 200 pounds the plump barley proved slightly more efficient.

Comparing plump kernels with thin in terms of feed efficiency, plump kernels were worth four per cent more during the 40 to 125 pound growing period and 16 per cent more during the fattening period from 125 to 200 pounds.

This indicates that thin barley has a somewhat higher feeding value for pigs from 40 to 125 pounds than for fattening them from 125 to 200 pounds.

Corn was judged 10.7 per cent more efficient than plump barley during the first period, eight per cent during the fattening period and nine per cent for both. For the entire period, plump kernels had a 11.5 per cent greater feeding value than thin kernels.

Kindred is the variety grown on 90 per cent of Minnesota and North Dakota malting barley-growing acreage.

Reason for the experiment: After government acreage restrictions were set for the 1954 corn crop, it was thought that more barley would be grown. The experimenters sought more definite information on how kernel thickness affects barley's feeding value.



PASTURE ALONE BETTER  
FOR STEERS  
IN U. OF M. TESTS

Yearling steers pastured on alfalfa-brome gained weight at a lower cost and made more profit over feed costs than steers on the same kind of pasture plus all the corn and cob meal they wanted.

Professor A. L. Harvey reports that studies last summer at the University of Minnesota's Rosemount Agricultural Experiment Station -- on the rolling, 210-acre Beef Cattle-Grassland Farm -- show a \$6.08 per steer greater profit over feed costs for steers on pasture alone than for steers on pasture plus grain.

Here is how the tests were conducted: One lot of three was put on a three-acre pasture from May 20 to September 14 and gained an average of 1.84 pounds a day -- total, 230 pounds per acre each -- during the period.

It cost \$3.79 to put 100 pounds of gain on the pasture - only group. Figuring the cost of steers (purchased at South St. Paul from Montana shipments) on May 20, 1954, and selling prices at South St. Paul on September 15, 1954, this group netted \$36.26 per steer over feed cost.

The second lot of four steers also was pastured on three acres of alfalfa-brome. They, too, averaged 1.84 pounds of gain a day per steer. They gained slightly more during the summer -- 307 pounds each per acre -- because they got corn and cob meal in addition to pasture.

But this added luxury brought feed costs up to \$6.63 per 100 pounds gain and lowered profit per steer to \$30.18 -- in contrast to \$36.26 profit per steer in the lot given pasture only.

DELAY BREEDING  
AFTER CALVING,  
SAY SPECIALISTS

Delaying breeding a cow until 50 days after she calves is good practice. A research project which gives added meaning to that custom is reported by Ralph Wayne, Extension dairyman at the University of Minnesota. The survey was made by Cornell University, Ithaca, New York.

The eastern researchers studied 150 cows who had a healthy history of reproduction. Twenty-six cows were bred within 50 days after calving. Of these, only 31 per cent settled on the first service. Of twenty-four bred 50 to 60 days after freshening, 67 per cent settled on first service. But 50 cows in the group were bred from 60 to 90 days after calving and 70 per cent of them settled at first service.

Another group were bred more than 90 days after calving and 76 per cent settled on first service.

Those bred the first time within 50 days after calving ended up settling an average of 100 days after calving. The cows bred the first time from 50 to 60 days after calving settled an average of 74.5 days after calving. The third group, bred from 61 to 90 days after calving, settled an average of 94 days after freshening.

Thus, it seems that early breeding actually delays conception. Wayne says that the survey underlines the importance of delaying breeding even healthy cows until at least 50 days after calving.

He says cows having a uterine discharge or a uterus that has not returned to normal in the usual time should not be bred until even later.

UREA DOESN'T  
IMPROVE WEANLING  
PIC RATIONS

With nearly 50,000 tons of urea and other non-protein nitrogen feed being fed in the U. S. this year, many farmers have been wondering about the actual value of such supplements.

A recent research project by University of Minnesota animal husbandry specialists found that urea has no place in a ration for growing pigs.

The experiment, supervised by Professor L. E. Hanson, consisted of four tests with three lots of six pigs fed in each test. Two tests were conducted last summer with spring farrowed pigs and two last winter with fall-farrowed pigs.

Here's what they found: Adding 1.5 per cent urea to a low protein -- 10.6 per cent -- ration from weaning to 125 pounds had no effect on the pigs' eating or rate of gain.

In fact, the pigs fed urea took six per cent more feed per pound of gain. Between the weights of 125 and 200 pounds, the pigs fed the low protein ration plus 1 per cent urea ate 7 per cent more feed daily than pigs fed the low protein ration alone.

But, weight gains were the same for both lots and the urea-fed pigs took about 10 per cent more feed per pound of gain. There was no sign of poisoning in any of the pigs fed urea.

In a contrast between a normal and a low-protein ration, pigs fed the normal protein ration -- 14.5 per cent from weaning to 125 pounds and 10.6 per cent from 125 to 200 pounds -- ate about 7.5 per cent more feed a day, gained 16 per cent more per head a day and took five per cent less feed per pound of gain than pigs fed a low protein ration.

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Special to the Grand Forks Herald

U. OF M. AGRONOMIST  
DISCUSSES NEW  
VERNAL ALFALFA

People have been asking many questions about the new Vernal alfalfa, released recently by the Wisconsin Agricultural Experiment Station.

Here are the facts about Vernal: It is a synthetic variety -- that is, a combination of several carefully selected alfalfa "clones," or families. Because of a shortage of seed it has not been tested widely in Minnesota, but its forage yields were measured at five locations in the state this summer.

According to L. J. Elling, assistant professor of agronomy at the University of Minnesota, Vernal is more wilt-resistant than Ranger or Ladak. But it has no resistance against the leafspot diseases common in Minnesota this year. Wisconsin agronomists report Vernal is winter-hardy under their conditions.

Its performance in Minnesota forage yield trials was good this year and it appears a promising variety. But, the University's Agricultural Experiment Station cannot recommend or reject the new variety until it has undergone two more years of field and laboratory testing under Minnesota conditions.

Seed of Vernal has been increased rapidly through the efforts of Wisconsin's and Utah's Agricultural Experiment Stations, the National Foundation Seed Project and western states and growers.

Elling says that probably Minnesota farmers will be offered seed for 1955 seeding -- just how much seed will be available is unknown, however.

He says that there will be no uncertified seed available and warns farmers against buying Vernal that salesmen describe as "uncertified." Official seed distributors say that only certified Vernal will be offered for sale.

HIGH-MOISTURE  
CORN USABLE IN  
DAIRY RATION

On many dairy farms there is a good supply of corn that may be a little high in moisture to keep well next spring and summer unless it dries out better than usual this winter.

A good place for this high-moisture corn is in the dairy ration. It can make up most of the grain mixture in the ration. This will help you save oats and barley for feeding after warmer weather comes next spring.

Ralph Wayne, Extension dairy specialist at the University of Minnesota, points out that this corn can be fed either shelled or as corn and cob meal. On most farms, this high-moisture corn is still in the ear so it's best to grind the ears.

Reason: there is some feed value in the corn cobs and the ration will be a little lighter and you'll save shelling costs.

Wayne says corn and cob meal has about 76 per cent digestible nutrients as compared to 70 per cent for good oats and 77 per cent for barley. All such home grown feeds are quite low in protein -- corn and cob meal has a little less protein than oats.

Wayne says that corn and cob meal makes excellent energy feed where high-protein roughages such as legume hay and silage are fed. With lower protein roughages such as corn silage with mixed hay, some high protein concentrate must be added to the grain mixture to make the most efficient dairy ration.

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Special to the Grand Forks Herald

U. OF M. AGRONOMIST  
GIVES FACTS ON  
GARRY OATS

Seed supplies of the new, improved Canadian oat variety, Garry, are short and if you're offered some be sure it is the certified and improved Garry.

This advice comes from University of Minnesota Extension agronomist Edwin H. Jensen. He explains Garry is a "re-selected" variety. That is, Canadian agronomists selected superior plants from the old Garry to "build" the new variety. They chose plants that showed strong rust resistance.

Race 7 and 8 of oat stem rust were big damagers of oat crops in recent years and Garry is resistant to them and in addition, to Race 7-A, which is not important now but may be in the future.

The new Garry also resists smuts and has some tolerance to crown or leaf rust. It is, however, a late-maturing variety but earlier than Rodney, the other new Canadian oat.

The University of Minnesota's Agricultural Experiment Station tested new Garry this year for the first time. They found it yielded about as well as Andrew and had a somewhat lower test weight.

Jensen repeats his warning about being sure than you buy only the improved, re-selected Garry. If you buy certified seed, you'll be certain of getting the variety you want.

-hrj-

SURVEY SHOWS  
FARMERS OFTEN  
PLANT POOR SEED

What kind of seed are Minnesota farmers planting? Some of it's of questionable quality and purity, more of a risk than an investment.

University of Minnesota Extension agronomist Rodney A. Briggs reports a survey by the Minnesota Crop Improvement Association in several west central counties last summer. Surveyors checked drill boxes on many farms. Here's what they found:

About 70 per cent of the farmers surveyed were using seed they produced themselves and were doing little in the way of cleaning to remove harmful weed and other crop seeds.

Of 45 samples of the farmers' own seed, 32 had an average of 53 wild oats seeds per pound; 28 samples had an average of 28 wild mustard seeds per pound; 23 samples had an average of 65 wild vetch seeds per pound; and 14 samples had an average of 14 quack grass seeds per pound.

And 37 of the samples also contained other crops, averaging 125 seeds of other crops per pound. Only one sample out of the 45 had a purity and germination that came up to the minimum standards that certified seed has to meet.

Ten samples contained more restricted weeds than allowed under the Minnesota Weed Law.

Briggs points out the difference in certified seed. Certified seed can have no more than three seeds of wild oats, wild mustard and wild vetch per pound. That's not three seeds of each one, but only three seeds of that whole group of three out-laws. And certified seed can have no quack grass seed in it.

Thus, says Briggs, it is a bargain in purity alone, even though it costs a little more than uncertified.

HIGHER GRAIN  
YIELDS POSSIBLE  
BY FERTILIZING

Higher yields of grain are possible on most Minnesota farms with careful fertilizing. Research at 78 trial plots over the state proved this last summer, according to Charles A. Simkins, Extension soils specialist at the University of Minnesota. He says that 1954 fertilizer demonstrations in the Red River Valley show about 70 per cent of the land where legumes and fallow were not used recently needs nitrogen for best grain yields.

Test plots at 78 locations over the state showed grain yield increases ranging up to 15 bushels per acre when nitrogen was applied. Phosphorus fertilizer, of course, is usually a "must" for highest yields. All the locations received a phosphate application of about 40 pounds of P-2, 0-5 per acre.

Average wheat yield in these tests rose 5.5 bushels per acre when 25 pounds or more of nitrogen went on each acre, Simkins said.

Applying nitrogen at 50 pounds per acre gave profitable increases over the 25 pounds-nitrogen-per-acre-rate in about a third of the locations.

Simkins explains that rust probably reduced the fertilizer's effectiveness at several locations. One-fourth of the wheat test plots were severely damaged by rust and the fertilizer had little opportunity to go to work.



SPECIALIST GIVES  
COST YARDSTICK  
FOR HOG RAISERS

Are you making money on hogs? Can you afford to produce hogs with today's climbing feed prices? You can make an accurate estimate, using information the University of Minnesota's agricultural economics department has drawn from a large group of farmers' records.

According to S. A. Engene, University agricultural economist who helped prepare the cost formula, it takes about 335 pounds of corn, 115 pounds of oats and 50 pounds of commercial feed -- total 500 pounds -- to produce 100 pounds of hogs. This figure includes feed for the boar and sows as well as market hogs.

But here's the fine point: although the average farmer used 500 pounds of feed to produce 100 pounds of hogs, about 10 per cent of his neighbors used only 400 pounds--some even less. And inefficient feeders used 600 pounds of feed and over.

How much did you feed? If you have good records, you will have no trouble carrying on an efficient feeding program. If not, you will have to estimate--and if your guess is wrong, it can lower your profits.

Feed accounts for about 80% of every dollar for raising pigs. So, for every \$80 of feed used, total production cost will be about \$100--or 25 per cent more than the feed cost.

Now, here's how to figure your hog "profit-ability": First, figure amount of feed to produce 100 pounds of hogs. Then, figure feed costs by using feed prices now probable for your farm. Add 25 per cent for an estimate of your total costs--this covers your labor, equipment and other expenses.

If you don't think you're going to get at least your production cost from hogs you'll want to consider ways of cutting costs or perhaps sell your crops rather than feed them, Engene says.

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Immediate Release

#### WE'RE EATING BETTER AT NO GREATER COST

An hour's labor today buys more and better food than at any other time in history.

American families continue to spend about one-fourth of their income for food, just as they did in the 20's, but they are getting a greater variety of foods, according to Mrs. Eleanor Loomis, extension consumer marketing agent at the University of Minnesota.

The 1955 market basket filled with a typical family's food for a week would look strange to a homemaker of three decades ago, Mrs. Loomis said. It contains more of the protective foods - such as meat, milk, eggs, fruit, green vegetables - than the average week's supply for the same size family in 1925. It also contains a greater variety of foods and many more items in ready-to-eat and ready-to-cook form.

Because of the progress made in farming and in industry, the kind of food that cost 25 per cent of a typical family's take-home pay in the 1920's can be bought today for 17 per cent of the average family income. Agricultural production is far more efficient than it was in the 1920's. The industries that process and distribute farm-grown foods have also achieved near-miracles in giving consumers better products and services.

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Immediate Release

#### UNIVERSITY ANNOUNCES THREE NEW CORN HYBRIDS

Three new varieties of hybrid corn -- Minhybrids 509, 511 and 414 -- have been released by the University of Minnesota's Agricultural Experiment station.

Announcement comes from Will M. Myers, head of the University's agronomy department. The experiment station also released single cross parents of the three new hybrids and three new inbred parent lines -- A-286, A-295 and A-401.

Most of the developmental work on the new hybrids and inbred lines was carried on at the University's Southern School and Experiment Station at Waseca.

Minhybrids 509 and 511 are adapted to south central Minnesota and have a maturity rating of 107 to 111 days. Compared with other recommended hybrids similar in maturity, they have yielded an average five bushels more per acre. Minhybrids 509 and 511 also have an additional advantage over older hybrids--a superior stalk quality, as indicated by very few broken stalks per acre.

Minhybrid 414 is slightly later in maturity and is rated as a 110- to 114-day hybrid. It is expected to replace Minhybrids 404 and 406, removed recently from the University's "recommended" list. Minhybrid 414 has out-yielded 404 and 406 about five bushels per acre and has better stalk quality.

Field tests at Waseca with artificial infestations of corn borers show that the three new Minhybrids are about equal to Minhybrids 411 and 412 in resisting first-brood borers.

The University Seed Stocks program will supply seed of the parent single crosses of the new hybrids for a large amount of double cross seed production in 1955, Myers said.

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Immediate Release

#### U. DAIRY SCIENTISTS USE LETDOWN HORMONE TO INDUCE MILK FLOW

T-63 and T-64 would soon be culled from any dairyman's herd and end up in rump roasts. But, at the University of Minnesota they are earning their keep--not by high milk production, however.

T-63 and T-64 are identical twin shorthorn heifers and probably the world's lowest milk producers, a shortcoming they inherited. Their story appears in the February issue of Farm and Home Science, a University research publication.

During her first lactation period T-63 produced less than five pounds of butterfat, T-64 less than 10 pounds. They often gave less than a cup of milk a day, while others gave a pail or two.

But, in a second lactation, University dairy scientist W. E. Petersen injected T-64 with oxytocin, the milk letdown hormone secreted by the posterior pituitary, a small gland just below a cow's brain.

The results were astounding. T-64 produced 215 pounds of butterfat her second lactation, while T-63 produced less than 40 pounds. The third lactation, T-64 went off pre-milking oxytocin injections and on her own ability--T-63 got the hormone. T-63 produced 6,431 pounds of milk and 221.6 pounds of butterfat while T-64 produced only 52.8 pounds of butterfat and 1,664 pounds of milk.

Where do you buy oxytocin? You can't yet--at least not economically--but it holds promise of solving some dairy farmers' low-production problems.

First, Petersen explains, T-63 and T-64's trouble is a common one: they apparently secrete very little oxytocin into their systems. Oxytocin goes into the blood, which carries it to the udder where it contracts muscle-like tissue to squeeze the milk out of tiny structures where the cow "stores" her milk. No oxytocin--and the cow soon "dries up."

(more)

What stimulates oxytocin release? A calf's nursing. Thus man can stimulate oxytocin secretion by hand or mechanical milking and obtain nourishing milk.

A large-scale University study of 60 cows shows great variation in milk-letting-down ability.

But low milk production isn't always the cow's fault--sometimes it's just poor management. A key to normal oxytocin secreting is simply peace and quiet.

Petersen says excitement at milking time will interfere with oxytocin secretion.

University dairymen pricked cows gently with pins and found even this completely blocked the response--only the milk in Bossy's teat cistern could be milked out.

It took an injection of oxytocin to get the rest to "come down."

Even mild excitement may result in a partial blocking.

Petersen suggests that farmers avoid handling the cow roughly, not feeding her when she has been led to expect feed at milking time, or allowing strangers in the barn during milking.

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MARCH 5 TIMELY TIPS -- SPECIAL TO "THE FARMER"

The maple sugar industry is growing more and more important to farmers as another source of income. Some farmers make as much as \$800 to several thousand just in the short sap-run season. First run starts late in February and the first part of March. You might want to look into this as an added source of income--it can be lots of fun, too. Maple syrup gathering time is one of the joyous times of the year in many areas--and it's been that for a couple of hundred years.

-- Parker Anderson.

\* \* \* \* \*

Pigs farrowed in winter need help if they are to stay healthy and vigorous. Anemia can be a big problem with them. If iodine isn't handy, swab the udders of the nursing sows with a saturated "copperas" solution. Start this swabbing when the baby pigs are three or four days old and keep it up until they're eating mostly creep feed.

--H.G. Zavoral

\* \* \* \* \*

Which cow to cull? Well, one sure-fire candidate is the cow with the diseased udder. If she's had several bad attacks of mastitis, she usually is a source of infection to other cows. Her production is low and she gives you poor-quality milk--poor because it contains many bacteria. -- Ralph Wayne

\* \* \* \* \*

Tempted to let the chickens out for a late-winter outing? This has its disadvantages--one of them is dirty eggs. And dirty eggs have to be washed. Washing greatly increases chances of eggs spoiling, you know. Bacteria get into washed eggs a lot more easily because water gives them something to work in. -- Milo Swanson

\* \* \* \* \*

Best way to keep profit-reducing chaff out of the wool fleece is to have mangers that keep sheep from nestling their heads and necks in the hay. Avoid dropping hay on sheeps' backs, too. Less "foreign matter"--more money from the fleece.

-- W. E. Morris

\* \* \* \* \*

If you're planning to weaning pigs early, plan to give these small pigs junior-size self-feeders and waterers. And remember that each piglet should have at least five square feet of living and working space. He'll need more, of course, as he reaches eight weeks of age. -- L. E. Hanson

\* \* \* \* \*

When you clean, treat and handle grain with chemicals, always take care to read the label on the container of the chemical you're using. Such chemicals often are poisons and their label gives very valuable suggestions on how to handle them safely. These include the antidotes in case anyone is hurt from inhaling, swallowing or simply touching the material. -- Glenn Prickett

Rumor has it that Minnesota plans to increase turkey numbers this year, perhaps beat California for first place in the nation. Minnesota and Iowa both plan biggest increases in the nation. This could be very disastrous, especially in heavy-type turkeys. 1954 was bad enough but if present intentions are carried out, there will be a lot of sadder but wiser turkey growers this fall. A 10 per cent reduction would be more nearly the ticket. -- Dr. W. A. Billings

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Don't neglect your garden tools and material until the last minute. Do you need to sharpen your pruners, hoes, shovels, lawnmower? Plan to order soon your fertilizers, manure and spray material for insect and disease prevention. -- C. Gustav Hard

#

Roost mites greatly lower the performance of a laying flock because they are blood suckers. To check for their presence, insert the blade of your pocket knife between the perch and its support. If the "gray dust" walks away, you will want to get busy at once with eradication measures. Them's mites--not dust. -- T. H. Canfield

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A farm woodlot "shrinks" because not enough good reproduction is coming in naturally--that's just one reason, of course. But this one problem can be prevented by artificial planting of desirable tree kinds so as to fill in and make every open portion of the woodlot productive and more profitable. -- Parker Anderson

#

Iowa State College reported recently that unchilled water helped hogs gain more. They gave one lot of hogs water heated by automatic heaters to between 45 and 55 degrees F. A second group had only unheated water. The first group gained about 59 pounds apiece in 40 days--but those that had to drink naturally cold water gained only 49 pounds during the same time. This is dramatic proof of the old fact--animals don't like icy water. -- Henry G. Zavoral



Another stilbestrol caution: it is not advisable to allow open gilts that will be bred later to follow on pasture the cattle being fed stilbestrol. This new material can't be "monkeyed with." It has its limitations and possible dangers and must be fed according to directions. -- W. E. Morris

#

You'll want to think seriously about treating your seed grains with chemicals soon to prevent root rot and other fungus diseases. This is part of wise and sound farm management -- J. J. Christensen

#

In handling milk, you will want to avoid exposing it to sunlight and copper or rusty iron surfaces. When sunlight hits milk, it destroys Vitamin "C" and riboflavin-- both extremely valuable. Milk is one of our main sources of riboflavin. When milk comes in contact with copper -- such as brass or copper milker parts, strainer screens, surface coolers and aerators -- it can acquire an off-flavor. This "oxidized flavor" problem, as we call it, is one of the most troublesome milk flavor problems on our farms today. -- Elmer L. Thomas

News Bureau  
University of Minnesota  
Institute of Agriculture  
St. Paul 1 Minnesota  
February 21 1955

To all counties  
For use week of  
February 28 or after

FILLERS for Your Column and Other Uses....

Heed Poison Sign on Treatment Container -- Not reading -- or just not heeding-- the sign of the skull and crossbones on seed treatment containers has meant real tragedy for a few folks. If the stuff is poisonous, you'll want to know the safety precautions necessary in handling it and understand how to use the antidotes in case anyone inhales, swallows or touches it. So advises the University of Minnesota's Extension safety specialist, Glenn Prickett.

\* \* \* \* \*

Weaning Pigs Early? -- If you're weaning pigs early, you'll want to know how University of Minnesota specialists dealt with scours in recent large scale early-weaning projects. They prefer water medication with a soluble antibiotic or arsonic acid. It's impractical to fortify pig starters with high enough levels of these drugs for all situations. And sick piglets will drink water even if too sick to eat. Call the veterinarian when early-weaning pigs get sick. It may be something serious, but something he can check fast if he gets it early. This tip comes from L. E. Hanson, University animal husbandry professor who directed early-weaning studies this year.

\* \* \* \* \*

How to Care for Planting Stock -- After ten minutes exposure to wind and sun, there's likely to be considerable injury to feeding roots of young conifer planting stock. One test showed that just 13 minutes' exposure killed half the secondary roots and part of the tap roots. If you leave bundles of trees lying around, opened and exposed or in a dry, heated package for an hour, it can kill all the secondary roots and most of the tap roots. Read the instructions on each bundle of baby trees you get. So says Parker Anderson, Extension forester at the University of Minnesota.

News Bureau  
University of Minnesota  
Institute of Agriculture  
St. Paul 1 Minnesota  
February 21 1955

To all counties  
For use week of  
February 28 or after

SEED TREATMENT  
BOOSTS YIELDS  
FOR LOW COST

Most farmers would find that the small amount of money invested in seed treatment would pay handsome dividends, says County Agent \_\_\_\_\_.

Seed treatment puts out of action many of the disease organisms that have found a home in the seeds--and, when the seed gets in the ground, treatment protects it against many disease organisms that live in the soil.

According to R. C. Rose, Extension plant pathologist at the University of Minnesota, lightweight seed may benefit most from treatment, but high-germinating and heavier seed also may show surprising improvement in efficiency when weather and soil conditions are poor after seeding.

Rose says cost of seed treatment is only a few cents per acre, so it doesn't take much improvement in yield to pay the small cost. Even in a low-value crop such as oats an average increase of three bushels per acre can be expected from average--and treated--seed.

He says that to get the full benefit of treatments, treated seed should be allowed to stand two days before going into the ground. Treating and seeding the same day often doesn't allow time for the material to take effect.

There now are on the market new treatments for corn, beans and peas that combine a low-volatile fungicide and an insecticide--these would be very helpful in reducing losses from soil insects as well as from soil diseases.

Comparing fields grown from treated seed to fields grown from untreated seed is not a good enough way to check difference in stand or plant vigor, however. You'd have a hard time noting even a 10 per cent difference in stand.

News Bureau  
University of Minnesota  
Institute of Agriculture  
St. Paul 1 Minnesota  
February 21 1955

To all counties  
ATT: HOME AGENTS  
For use week of  
February 28 or after

NOW'S TIME TO  
CHOOSE RIGHT  
FREEZING VARIETY

This is the time of year to do some arm-chair gardening and choose the varieties of vegetables to plant in your garden specifically for freezing.

For attractive, top-quality home-grown vegetables from the freezer, it is necessary to plant varieties that will freeze well, says Home Agent \_\_\_\_\_. Selection of good varieties for freezing will prevent the disappointment some families have with vegetables they freeze.

\_\_\_\_\_ reports that tests of many fruit and vegetable varieties made each year in the frozen foods laboratory in the horticulture department at the University of Minnesota show that some varieties freeze much better than others. On the basis of these tests revisions are made each year of the list of varieties recommended for freezing.

Given below are some of the varieties that have been tested at the University and found to be good for freezing. If you find others to be as good or better, you will know that such varieties are among the best for freezing.

Asparagus - California 500, Washington.

Green beans - (bush) - Giant stringless green pod, Topcrop, Tendergreen, Wade;  
(pole) - Blue Lake Stringless, Kentucky Wonder.

Wax beans - Brittle Wax, Pure Gold.

Lima beans - Burpee's Improved Bush, Fordhook No. 242, Triumph.

Brussels sprouts - Long Island Improved.

Cauliflower - Snowball, Super Snowball, Snowdrift.

Sweet corn - (on cob) - Golden Cross Bantam, Golden Freezer, Early Golden 113.

Sweet corn - (whole kernel) - Most good garden varieties.

Peas - Burpeana Early Dwarf, Lincoln, Little Marvel, Perfection Dark Seeded, Thomas Laxton.

Spinach - Bloomsdale Long Standing, Giant Nobel, New Zealand.

Summer squash - Summer Crookneck, Zucchini.

Winter squash - (for pies) - Banana, Golden Delicious, Greengold and blends of these varieties.

Winter squash - (for mashed squash) - Buttercup, Faribo Hybrid G, Faribo Hybrid R, Greengold, Rainbow.

News Bureau  
University of Minnesota  
Institute of Agriculture  
St. Paul 1 Minnesota  
February 21 1955

To all counties

ATT: HOME AGENTS  
For use week of February 28 or  
later

Third in Series on Buying Rugs  
and Carpets

WEARABILITY IN  
FIBERS AND RUG  
BACK IMPORTANT

What should you look for after you've decided on the color you want for your new rug?

Home Agent \_\_\_\_\_ points out that wearability is important to every home-maker who makes the big investment that a carpet or rug requires. She passes on some suggestions from extension home improvement specialists at the University of Minnesota on how to check wearability.

The back side of the rug will give you a clue to its quality and wearability. The backing should be closely woven and sturdy, and it should be pliable but firm. The carpet back indicates the closeness of the pile. The closer the rows of tufts per square inch, the better the carpet will wear. A rug with seven rows of tufts to the inch will probably wear twice as long as one with four rows of tufts. But the more tufts on the back, the more expensive the rug will be.

Carpet backs are made of cotton, jute, or craftcord, a sturdy, tightly twisted kraft paper. The jute back is considered most durable.

The obvious thing on the top of the rug is the pile. The thicker the pile, the more years of service it will give. Long pile gives a luxurious look and feel to the rug, but does not affect wear as much as the density or thickness does.

The yarn that forms the pile of a rug can be twisted, looped or cut. In a twisted weave, the yarn is twisted or crimped before the rug is made. This gives it added resiliency and helps it shed soil. On some rugs the pile is left in loops on the top, and in others it is sheared off. A looped pile, in a high-pile or shag-type rug, is more likely to pull out than a cut pile unless it is locked in, but it is less likely to show foot tracks. In areas getting heavy traffic, looped or twisted pile will prolong wear of the rug.

News Bureau  
University of Minnesota  
Institute of Agriculture  
St. Paul 1 Minnesota  
February 21 1955

To all counties  
For use week of  
February 28 or after

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

COMPANION CROP  
MAY CHECK WEEDS  
IN SOYBEANS

A new weed control practice for soybeans is in field experiments at the University of Minnesota, reports County Agent \_\_\_\_\_. It's sowing a companion crop that competes with the weeds but doesn't injure soybean growth.

University Agronomist R. G. Robinson describes the operation: They sow soybeans with a grain drill in rows six to seven inches apart at two bushels per acre. Then, they grain drill one bushel winter rye or winter wheat per acre. The winter grains germinate and produce leafy growth when sown after May 15. Thus, they compete strongly with weeds, but not much with soybeans, which are a great deal different from winter grains in root systems and growing habits.

Then, in July, when soybeans make their heavy growth, the winter grains start to dry up from rust, heat, soybean competition and other natural causes. And by August 1, the winter grains are "out of business."

Does it injure soybeans? Robinson says that soybeans sown with a grain drill and with no companion crop are a bit taller, have a little larger leaves and are a bit darker green in June and July. But companion-cropped soybeans usually catch up and in nine out of 12 field tests they yielded higher.

Compared with cultivated soybeans, however, companion-cropped soybeans yielded more in four field tests, the same in one field test--but slightly less in 7 tests.

What's the best companion? At present, says Robinson, the vote goes to winter rye. They tried winter rye, winter wheat, vetch, alfalfa, red clover, brome grass, timothy, field peas, rape and winter barley.

The new practice still is being experimented with--generally, it doesn't give quite as good weed control as a good job of cultivation and hasn't yielded as well as the average. Robinson says they cannot yet recommend it as a substitute for cultivated rows on level land.

If you want to try it, though, Robinson suggests sowing one bushel of winter rye with all soybeans that will be grown in non-cultivated six- or seven-inch rows. They can be mixed and sown in one operation--but they must be mixed very thoroughly. But, sowing the rye separately and in the same direction as the beans probably is safest at present.

News Bureau  
University of Minnesota  
Institute of Agriculture  
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February 21 1955

To all counties

ATT: 4-H CLUB AGENTS

For use week of February 28

NATIONAL 4-H  
WEEK GOOD TIME  
TO JOIN 4-H CLUB

Some \_\_\_\_\_ county 4-H members will join with more than 2  
(give round numbers)

million 4-H boys and girls throughout the country in observing National 4-H Club Week March 5-13 and telling the public about their program in "learning by doing."

During the week, exhibits and special programs will be featured by many clubs to acquaint adults and eligible boys and girls in the community with 4-H work.

(Add any specific events or exhibits planned for the week and tell where.)

Young people 10 to 21 years of age who are not members are invited to attend any 4-H club meeting held during National 4-H Week or to get information on club work from the county extension office or adult leaders, says Club Agent \_\_\_\_\_.

Since only one out of every \_\_\_\_\_ rural boys and girls in \_\_\_\_\_ county is a 4-H  
(no.)

member, there are still many young people in the county who have not availed themselves of the opportunity to join their local 4-H club, according to \_\_\_\_\_.

"Graduates" of 4-H clubs agree that 4-H work has helped them to become better farmers and homemakers, has taught them citizenship responsibilities and has shown them the way to greater enjoyment of rural living. Besides learning skills in farming and homemaking, 4-H'ers have a chance to get acquainted with other young people through their club and take part in interesting recreation. Picnics, parties, music and play festivals and athletic contests are all a part of the 4-H program.

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
February 22, 1955

SPECIAL TO WILCOX

County Agent Introduction

Here's Clayton E. Grabow, county agent at Mille Lacs county, getting a tape recording from one of his 4-H adult leaders. Grabow is right at home in this predominately dairy-type farming area. He's been the Mille Lacs county agent since 1952. Grabow has a real dairying background. He attended high school in Sleepy Eye and Arlington, Minnesota. — Then to the University of Minnesota where he got a B. S. degree in 1942. He taught vocational agriculture at Pillager and Detroit Lakes before heading back to school in 1948. This time it was to be at the University of Wisconsin. Grabow came back to Minnesota in 1949 with one more degree; a Masters in dairying. He served as an instructor at North Dakota Agricultural college in 1949 and 1950. Grabow has some good practical experience in dairying, too. While teaching agriculture in the high schools, his judging teams won top honors in the district and state.

-dec-



### LYON COUNTY GIRL TO CHILE

Mary Ann Moon, ~~Amrei~~, will spend six months in Chile next fall and winter as an International Farm Youth Exchange delegate, county agent Robert Schafer has announced.

She is kthe fourth "grass roots ambassador" to be selected from Minnesota to go to a foreign country in 1955 under the IFYE program, whose purpose is to further international understanding.

Tentative plans call for Miss Moon's departure for Washington D. C. on October 9 for a week's orientation. On October 17 she will fly from Miami to Chile. She will return to the United States April 15, 1956. During that time she will live in farm homes in Chile.

The Lyon county girl is a senior at Mankato State Teachers' college, where she is majoring in elementary education. In college she has been active in WCA, the college 4-H club and church youth work and has been a member of the house council. She reads and speaks Spanish.

For 11 years Miss Moon was a 4-H member in Lyon county. She had experience serving as a county 4-H assistant in the summer of 1954.

(Here insert paragraph on any arrangements or plans  
you have in the county for financing Mary Ann's trip)

The International Farm Youth Exchange is conducted by the National 4-H Foundation in cooperatish with the Agricultural Extension service. No government funds are used in financing the program. In Minnesota the state share is being contributed this year by the State Rural Youth Federation, the Minnesota 4-H Club Federation, Land O' Lakes and individual 4-H clubs and farm groups.

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
February 23, 1955

Immediate Release

#### LIVESTOCK MARKETING CLINIC ANNOUNCED

A Livestock Marketing Clinic will be held Friday and Saturday, March 4-5, on the University of Minnesota's St. Paul campus.

Announcement comes from J. O. Christianson, director of agricultural short courses. Clinic chairman is Henry G. Zavoral, extension livestock specialist at the University.

The program begins Friday afternoon. Speakers include Prof. A. L. Harvey, on beef cattle; M. L. Buchanan, head of animal husbandry, North Dakota Agricultural college, Fargo, on sheep; Prof. Lester E. Hanson of the University of Minnesota, on hogs; Harry C. Trelogan, director of research, Agricultural Marketing service, U. S. Department of Agriculture, on the role of terminal livestock markets; and John L. Olson, a Worthington, Minnesota, farmer, who will speak on farmers' views on livestock marketing groups.

The Clinic is given in cooperation with the American Stockyards Association, National Livestock Exchange and marketing groups at South St. Paul, Minnesota, West Fargo, North Dakota, Sioux Falls, South Dakota, and Milwaukee, Wisconsin.

Saturday morning's program includes discussions of livestock diseases, selecting and training new market salesmen, livestock marketing problems and meat market customer relations. O. B. Jesness, head of the University of Minnesota's agricultural economics department, will speak at a Saturday noon luncheon.

Complete information on the Clinic is available from the Short Course Office, Institute of Agriculture, University of Minnesota, St. Paul 1.

B-364-hrj

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
February 23, 1955

Immediate Release

#### SOIL CONSERVATION PRACTICES INCREASE

"Application of soil and water conservation practices on Minnesota farmland moved ahead faster in 1954 than in preceding years," Herbert A. Flueck, State Conservationist for the U. S. Soil Conservation Service, said today.

Flueck attributed the increase to an increased desire on the part of Minnesota farmers to "do something" about their soil and water loss problems.

In 1954 Minnesota farmers in soil conservation districts alone established 11,680 acres of contour farming, 46,508 acres of strip cropping, planted 2,115 acres of trees and 180 miles of windbreaks and shelterbelts. Drainage was improved on 98,107 acres, requiring 1,000 miles of tile and 1,041 miles of open drainage ditches.

"These accomplishments are only a part of the conservation achievements of Minnesota's farmers which resulted from the efforts of all individuals and groups interested in furthering soil conservation," he said.

Prominent among groups assisting in soil conservation work, Flueck said were:

Soil conservation district supervisors who direct activities in Minnesota's 69 soil conservation districts.

The University of Minnesota Agricultural Extension Service with its educational program in agriculture carried on by county agents in all 87 counties.

The Agricultural Conservation Program of the U. S. Department of Agriculture which encourages conservation by cost sharing payments for some conservation practices.

The U. S. Soil Conservation Service which assists soil conservation districts by providing technical assistance for on-the-farm planning and establishment of soil conservation measures.

"Many other groups and individuals have contributed to conservation results in 1954," Flueck continued. "These include sportsmen and civic groups, agricultural organizations, and youth groups."

B-365-hbs

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
February 23, 1955

Immediate Release

#### LYON COUNTY GIRL TO CHILE

Mary Ann Moon, Amiret, Lyon county, will spend six months in Chile next fall and winter as an International Farm Youth Exchange delegate, Leonard Harkness, state 4-H club leader at the University of Minnesota, announced today.

She is the fourth "grass roots ambassador" to be selected from Minnesota to go to a foreign country in 1955 under the IFYE program, whose purpose is to further international understanding.

Tentative plans call for Miss Moon's departure for Washington D. C. on October 9 for a week's orientation. On October 17 she will fly from Miami to Chile. She will return to the United States April 15, 1956. During that time she will live in farm homes in Chile.

The Lyon county girl is a senior at Mankato State Teachers' college, where she is majoring in elementary education. In college she has been active in YWCA, the college 4-H club and church youth work and has been a member of the house council. She reads and speaks Spanish.

For 11 years Miss Moon was a 4-H member in Lyon county. She had experience serving as a county 4-H assistant in the summer of 1954.

Last year she taught in Rawlins, Wyoming.

Other Minnesotans who will be going to foreign countries this year under the IFYE program are Helen Fahning, Cleveland, to Germany; Beverly Norris, Burtrum, to Austria and Richard Sample, Spring Valley, to Ecuador.

They will be part of a group of some 124 rural young people going to foreign countries as IFYE exchangees. In the return phase of the exchange, 177 young men and women from 48 foreign countries will spend the summer on American farms.

The International Farm Youth Exchange is conducted by the National 4-H Foundation in cooperation with the Agricultural Extension Service. No government funds are used in financing the program. In Minnesota the state share is being contributed this year by the State Rural Youth Federation, the Minnesota 4-H Club Federation, Land O' Lakes and individual 4-H clubs and farm groups.

B-366-jbn

University Farm News  
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Immediate Release

#### U. STUDENT LEADERSHIP MEDAL TO JEAN WEBSTER

Jean M. Webster, 3809 - 46th Avenue South, Minneapolis, senior in home economics education at the University of Minnesota, is this year's winner of the Dean E. M. Freeman medal for student leadership on the St. Paul campus.

The bronze medal was presented by Dean A. A. Dowell, director of resident instruction of the College of Agriculture, Forestry and Home Economics, at a special recognition dinner in the Agricultural Union. The award is made each year to the "senior student who has made the greatest contribution to student life on the St. Paul campus."

Miss Webster has been president of the campus Home Economics association, is a member and officer of Phi Upsilon Omicron, professional home economics society and of Eta Sigma Epsilon, education society. She has taken an active part in the work of the YWCA, the Student Council of Religions, the freshman orientation program, Welcome Week, Greek Week, Kitchi Geshig, the Big Sister Career workshop and the Panhellenic council.

The Forestry club and the Independent Men's Co-op, 1469 North Cleveland avenue, St. Paul, were named the organizations which have given the most service on the St. Paul campus this past year. Both groups were awarded certificates.

Fifty students received silver and gold pins and certificates from the St. Paul campus student council for campus leadership in various activities.

Gold pins went to David Chester and Carolyn Larson, Faribault; Harold Collins, Albert Lea; Shirley Erickson, Badger; Genevieve Frisk, New Richland; Richard Hanson, Winthrop; Donald Kvasnicka, Owatonna; Lyle McCutcheon, Carlos, Ronald Sellman, Taylor Falls and to Miss Webster.

The following received silver pins for leadership: Margaret Mary Gilchrist, Robbinsdale; Donald Hastings, Felton; Roger Long, 5228 - 42nd avenue South, Minneapolis; Lou Ella Robb, Wadena; Herbert Rosenberg, Shawano, Wisconsin; William Sorem, Dundas; Daniel V. Webster, Le Center; Harvey Windels, Sebeka; Phillip Parsons, Northfield.

B-367-jbn

University Farm News  
Institute of Agriculture  
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St. Paul 1, Minnesota  
February 23, 1955

\* \* \* \* \*  
FOR RELEASE:  
FRIDAY A.M., FEBRUARY 25  
\* \* \* \* \*

#### WINNERS IN WINTER JUDGING CONTESTS ANNOUNCED

John J. Murray, Hastings, sophomore in agriculture at the University of Minnesota, was named top award winner of the winter judging contests on the St. Paul campus at an awards assembly last (Thurs.) night in Peters hall auditorium.

Murray ranked highest in five out of six judging contests sponsored by the St. Paul campus student council. He received the Sonstegard award of a gold Elgin watch.

Reserve champion was William Saylor, agriculture sophomore from Pittsfield, Illinois. He was awarded the Cornelius Jewelers trophy.

The contests included judging general livestock, dairy animals, dairy products, poultry, poultry products, meats and crops.

Winners in the individual contests were:

General livestock - Arvy Larson, Rothsay, champion; Raymond Husen, Luverne, reserve; Warren Luedtke, University Grove, St. Paul, freshman award.

Dairy - Raymond G. Peterson, Cheyenne, Wyoming, champion. Alton Hanson, Albert Lea, Jersey medal; Victor Jorge, Jr., Madison, Holstein medal; Sheldon Erickson, Badger, freshman award.

Poultry - Joseph Pavek, Jr., Waubun, over-all champion; Gerhard Swenson, Dawson, poultry products; Joseph Zetah, Olivia, poultry production.

Dairy products - Lowell Boe, International Falls, over-all champion; Harvey Windels, Sabeka, cheese; Kenneth Werner, Stewart, butter; Arnold Carlson, Cosmos, ice cream; Donald Dahl, Rushford, milk.

Meats - Earl H. Brown, 1899 Selby avenue, St. Paul, champion; Kenneth Hakes, Springfield, reserve.

Crops - Milton Jellum, Starbuck, over-all champion; John Januschka, Little Falls, identification; Clayton Oslund, Solway, judging; John Jourdan, Northome, judging, second place; Thomas Laughlin, Benson, freshman award.

University Farm News  
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February 24, 1955

SPECIAL to I. G. Laban,  
Racial & Religious  
Publications  
I. G. Sam

#### STATE 4-H SPEAKING CONTEST MARCH 12

Seventeen district winners in the statewide 4-H radio speaking contest will compete for championship honors and a \$200 award Saturday, March 12, on the St. Paul campus of the University of Minnesota.

Announcement of the state winner will be made following broadcast of the speeches of the two top contenders over WCCO between 2:30 and 3 p.m. Saturday.

The radio speaking contest is being sponsored for the thirteenth year by the University of Minnesota Agricultural Extension Service and the Minnesota Jewish Council. More than 800 4-H members from nearly every county in the state have competed in local and county contests, preparing original speeches on the subject, "What Are My Opportunities and Responsibilities Under Freedom?"

A special schedule of events has been planned for Friday, March 11, for the 17 district winners. They will spend the morning and a part of the afternoon at North high school in Minneapolis visiting classes, attending the assembly program and being entertained at luncheon by the student body. At 3 p.m. they will leave for the State Capitol to meet Governor Orville Freeman and members of the legislative and judicial branches of government.

State and district winners will be honored Saturday evening, March 12, at a banquet given by the Minnesota Jewish Council in the Nicollet hotel at 6 p.m. Main speaker will be Father Vincent O'Connell, pastor of St. Louis church, St. Paul, who will talk on "Youth, the Bulwark of Democracy." Eldon Underdahl, Kenyon, state winner in the contest 10 years ago, will also speak. Dr. Irwin A. Epstein, president of the Jewish Council, will be toastmaster.

(more)

The Jewish Council is providing more than \$2,000 for awards to county, district and state winners and for transportation, hotel accommodations and the banquet for 4-H members participating in the state contest.

The state champion will receive a \$200 cash award, the reserve champion \$100. Awards of \$15 and \$5, respectively, will be given to district and county winners, \$10 to the reserve district champion. An additional cash award of \$50 will be presented to the state champion and \$25 to the reserve champion to purchase books on citizenship and human relations for their high school, city or county libraries.



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February 24 1955

*Special To Minn.*  
*Heath's*

For use before or during:  
NATIONAL 4-H CLUB WEEK, March 5-13

#### 4-H: THE ROAD TO BETTER LIVING

Amidst all the talk these days about juvenile delinquency, it's refreshing to be reminded of the constructive program being carried on by some 2 million young people throughout the country.

As members of the largest rural youth organization in the world, the 4-H club, these 2 million boys and girls are taking part in a program of "learning by doing," carrying on a wide variety of projects in farming, homemaking, community service and other activities. They are learning, also, to become leaders in their communities and valuable citizens of their own country.

As a matter of fact, these boys and girls are so busy "making the best better" and carrying out their theme of "Improving family and community living" that juvenile delinquency is no problem in this organization.

The 4-H club program provides opportunity for activity, adventure and achievement. Ask the boys and girls what they do, and they'll probably tell you first about the fun they have - but they'll also tell you about the satisfaction they get out of their accomplishments.

And their achievements are many. For these young people raise livestock and poultry, grow gardens and field crops, conserve the soil, sew, cook, preserve food, beautify the home grounds and make their homes more attractive. They extend their efforts to community service as they help with community health programs, conduct safety surveys and campaigns, give leadership in recreation.

These young people also continue to set a good example for their elders in the field of human relations. To further better understanding in our own country as well as abroad, Minnesota 4-H'ers are taking part in two exchange programs - the Minnesota-Mississippi 4-H Exchange and the International Farm Youth Exchange.

It is a privilege to salute, during National 4-H Club Week, the 2 million boys and girls throughout the nation who are taking the 4-H road to better living.

COOPERATIVE EXTENSION WORK  
IN  
AGRICULTURE AND HOME ECONOMICS  
STATE OF MINNESOTA

University of Minnesota  
U. S. Department of Agriculture  
County Extension Services  
Cooperating

Agricultural Extension Service  
Institute of Agriculture  
St. Paul 1 Minnesota  
February 24 1955

Dear Editor:

Enclosed you will find a mat for use during National 4-H Club Week March 5-13. In case you wish to make editorial comment on 4-H club work, you will find some suggested ideas in the attached copy. Your county agent can furnish additional specific material.

The support the newspaper has given to local 4-H work has been very gratifying. Whatever you do to continue to encourage this worthwhile program for our youth and to give a pat on the back to community-spirited local leaders and parents will be appreciated.

Sincerely yours,

*Josephine B. Nelson*

(Mrs.) Josephine B. Nelson  
Extension Assistant Editor

JBN:ms

Enc.

University Farm News  
Institute of Agriculture  
University of Minnesota  
St. Paul 1, Minnesota  
February 24, 1955

SPECIAL TO: Adams Review  
Austin Herald  
Le Roy Independent  
Rochester Post-Bulletin  
KAUS, Austin  
KMT-TV, Box 457, Austin

HASBARGAN TO  
BE NEW MOWER  
COUNTY AGENT

Donald Hasbargan, 29, Le Sueur county agent at Le Center since 1951, will become Mower county agent at Austin on March 15. He succeeds the late Franklin L. Liebenstein, Mower county agent for 34 years.

A native of Jackson county, Hasbargan was graduated from the University of Minnesota's Institute of Agriculture in 1949. He majored in animal husbandry. Before taking the Le Sueur county post in 1951, he served 18 months as 4-H Club agent in Goodhue county at Red Wing.

The Hasbargans have three children -- two boys, one four years old and the second eight months, and a girl, who is three.

-hrj-

University Farm News  
Institute of Agriculture  
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SPECIAL TO: Elysian Enterprise  
Le Center Leader  
Le Sueur News-Herald  
Montgomery Messenger  
New Prague Times  
Waterville Advance  
St. Peter Herald  
Mankato Free Press  
Belle Plaine Herald

FLOYD BELLIN  
IS NEW COUNTY  
EXTENSION AGENT

Floyd Bellin, Jr., a native of North Branch, will become Le Sueur county agent at Le Center on March 16. He succeeds Donald Hasbargan, who has accepted the Mower county agent post in Austin.

Bellin has been Goodhue county 4-H club agent at Red Wing since March, 1951. He was graduated from the University of Minnesota's Institute of Agriculture that same month. A 4-H club member for 11 years, Mr. Bellin was active in livestock, crops and junior leadership projects. He was a member of the University's general livestock judging team which in 1951 won first place at the National Western Stock Show in Denver.

Bellin is married and the father of two children.

-hrj-

University Farm News  
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February 24, 1955

SPECIAL TO WEEKLIES

Immediate Release

#### AG SCHOOL COMMENCEMENT, ALUMNI ACTIVITIES SCHEDULED

Events in connection with the 66th annual commencement and alumni reunion of the University of Minnesota School of Agriculture, St. Paul, will be held March 13, 14, and 16.

Special reunions will be held Sunday, March 13 from 1 to 6 p.m. by the following classes: 1890, 1895, 1900, 1905, 1910, 1915, 1920, 1925, 1930, 1935, 1940, 1945, 1950.

Mr. Myron Clark and Mr. Victor Dose of St. Paul, who are president and secretary, respectively, of the School of Agriculture Alumni Association, urge all alumni and former students of the School to attend the festivities. Alumni headquarters will be in Coffey hall on the St. Paul campus.

Dr. Melvin A. Hammarberg, pastor of the Arlington Hills Lutherna Church, St. Paul, will give the commencement sermon at 8 p.m. March 13 in the auditorium of Coffey hall on the St. Paul campus.

The annual Alumni Association business meeting will be held at 1 p.m. Monday, March 14 in Room 107, Agricultural Engineering Building. The alumni banquet and program is scheduled at the School of Agriculture dining hall at 6:00 p.m. the same day. Dr. A. L. Harvey, Department of Animal Husbandry, University of Minnesota, Institute of Agriculture, St. Paul, will be toastmaster at the banquet. Dr. and Mrs. Harvey were the Godparents of the Class of 1930.

There will be a reception on March 16 from 3 to 5 p.m. for members of the graduating class and their parents by Dr. and Mrs. Harold Macy and Dr. and Mrs. J. O. Christianson. Dr. Macy is dean of the University Institute of Agriculture, and Dr. Christianson is superintendent of the School of Agriculture. The reception will be held in the fireplace room of the home economics building.

Dr. Paul H. Giddens, President, Hamline University, St. Paul, will speak at the graduation exercises at 8 p.m. on March 16 in the auditorium of Coffey hall. Diplomas will be presented to graduates by Dean Macy. Presiding over the capping ceremony for young women who have completed the course in Practical Nursing and Home Management offered jointly by the School of Agriculture and the School of Nursing of the University of Minnesota will be Miss Katharine J. Densford, director, and Miss Elizabeth Davidson, instructor, in the School of Nursing.

News Bureau  
University of Minnesota  
Institute of Agriculture  
St. Paul 1 Minnesota  
February 28 1955

To all counties

ATT: HOME AGENTS

For use week of March 7

CANNED CORN,  
SNAP BEANS ARE  
MARCH PLENTIFULS

Last year's production of canned corn and canned snap beans was so large that these foods are given top place on the U. S. Department of Agriculture's March list of plentiful foods, reports Home Agent \_\_\_\_\_.

Along with these two Midwest foods, a southern crop, rice, is in generous supply and should be a good food buy.

Red meats have returned to the list of abundant foods after a brief absence. Midwestern farms will be supplying most of the nation with generous amounts of beef and pork.

Eggs will continue plentiful, as they have been almost constantly for a year. Since milk production always increases at this season, milk and dairy products also have a prominent place on the list.

Other protein foods which promise to be thrifty food buys are frozen haddock fillets, halibut, shrimp and canned tuna.

Hogs, milk and soybeans produced in the Midwest account for much of the abundant supply of lard, butter, shortening, margarine and salad oils.

Raisins, small-sized prunes and fresh and processed oranges and grapefruit are the fruits expected to be most plentiful during March.

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To all counties

For use week of March 7  
or after

PLANT VEGETABLE  
VARIETIES SUITED  
TO MINNESOTA

One of the keys to success in growing vegetables is to choose varieties adapted to Minnesota conditions, according to County Agent \_\_\_\_\_.

He calls the attention of \_\_\_\_\_ county gardeners to a publication just off the press, newly revised Extension Folder 154, "Vegetable Varieties for Minnesota," available from the county extension office. The folder contains a list of vegetable varieties suggested for Minnesota home gardens. It also describes some of the new vegetable varieties tested this past year and now recommended for planting by home gardeners. The tests were made under the supervision of Orrin C. Turnquist, extension horticulturist at the University of Minnesota on the St. Paul campus, at University branch experiment stations, and in home and commercial gardens in various locations throughout the state.

Among newer varieties which have done well in the tests, Turnquist suggests these for home planting:

Asparagus - F. Hybrid, Washington.

Beans - yellow bush - Cherokee; green bush - Topcrop, Resistant Tendergreen.

Beets - King Red, Perfected Detroit.

Broccoli - Waltham 29.

Cabbage - Badger Market.

Carrots - Nantes, Royal Chantenay.

Sweet Corn - Earliest Market King, Sugar and Gold, Golden Freezer.

Cucumbers - Marketer, Burpee Hybrid, Hybrid C.

Onion - Autumn Spice.

Peas - Burpeana Early Dwarf, Lincoln, Wando.

Leaf lettuce - Slobolt.

Squash - Hybrid R.

Tomatoes - Fireball, Hybrid E.

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NOTE TO AGENT: Extension Folder 154 should be in the mail to you the week of March 7.

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To all counties

ATT: HOME AGENTS  
For use week of March or later  
Fourth in series on buying carpets  
and rugs

WEAVE IMPORTANT  
WHEN BUYING  
CARPETS

What kind of weave should you choose for your carpet?

Extension home improvement specialists at the University of Minnesota say that a good carpet value should not be judged by price alone. The weave is very important when choosing a rug or carpet.

When you are limited in the amount of money you can spend on a carpet, experts recommend that you buy a better quality rug in one of the less expensive weaves rather than a poorer quality rug in a more expensive weave.

There are four basic weaves for carpets, and a fifth, tufting, has recently been introduced. The term "broadloom" does not refer to a weave, but to carpet woven in widths varying from 6 to 18 feet.

Axminster - This is a cut-pile carpet, available in a wide color range and combination. It has an all-wool surface, with most of the carpet yarns appearing on the surface, forming part of the design. A carpet of this weave can be rolled only crosswise because of the construction of the jute backing. Since it is medium in price, about half the carpets manufactured are of this weave. It is long wearing if the tufts are woven closely, and shading spots don't show up noticeably on the pattern. Closeness of the weave can be judged by counting the ridges on the back. The more ridges, the longer the rug will wear.

Wilton - This weave has a low cut, stubby pile, and has several layers of yarn imbedded in the back. Wearing quality is increased by carrying the pattern colors from the surface to the underside. A carpet of this weave is more limited in color and pattern than the Axminster. Wilton weave provides as long wearing qualities as any of the weaves. A rug of this weave falls into the medium and higher-priced brackets. You can check the quality by the height of the pile, and the density of the patterned back of the rug.

Velvet - Rugs of this weave are woven on a loom similar to that used for the Wilton weaves. No wool yarns are buried in the face of the fabric. Velvets are most often found in solid colors and are woven from dyed yarns. If there is a design, it is printed on after weaving. The pile is cut and low, and may be either twisted or straight. This weave is less expensive than the Wilton. The moderate grades of velvet weaves have a dense pile which gives considerable durability.

Velvet weaves show footprints because the pile has a tendency to lie back in one direction. To keep a velvet-weave carpet looking its best, it needs to be vacuumed more often to raise the pile into place.

Chenille - This is the most expensive of the carpet weaves, and is generally made up for custom orders. The pile is deep and thick and hand sculpturing is used by way of pattern. It is used for hotels and public buildings where traffic is extremely heavy.

Tufting - This is a new carpet weave. Yarns are imbedded in a latex-treated fabric backing of either canvas or jute. Jute is stronger and will, therefore, give longer wear. The yarns may be either cut or loop pile. Rugs of this weave are medium in price because they are woven rapidly. Homemakers are urged to watch for this type of construction in the new rayon and nylon yarns.



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To all counties

ATT: 4-H CLUB AGENTS

For use week of March 7

4-H'ERS WORK TO  
IMPROVE HOME AND  
COMMUNITY LIFE

During National 4-H Club Week, March 5-13, \_\_\_\_\_ county 4-H members, along with 47,000 other 4-H'ers in Minnesota, are taking stock of their achievements and re-dedicating their efforts toward fulfilling the 4-H theme, "Improving Family and Community Living."

Club (County) Agent \_\_\_\_\_ reports that county 4-H members have an impressive list of achievements so far this year to show what they have done to improve life on the farm and in the community.

One of the many accomplishments of county 4-H boys and girls is the work they have done in beautifying home yards by planting trees, shrubs, flowers and windbreaks and maintaining the lawn. Many farm home interiors have taken on a "new look" because 4-H sons and daughters have been interested in wielding a paint brush, hanging wallpaper, making new curtains or refinishing old pieces of furniture.

By applying the best scientific methods learned in their home economics and agricultural projects, they have helped to increase the efficiency in both home-making and farming operations.

Through such activities as health, safety and fire prevention, some \_\_\_\_\_  
(no.)  
county 4-H members (or some 35,000 4-H'ers in Minnesota) have assisted with community health programs and have helped make their homes and communities safer by conducting safety surveys and campaigns. (Note to Agent: You might give more specific information on any community activity during the past year.)

This year \_\_\_\_\_  
(no.)  
county 4-H members have given serious thought to their civic responsibilities by writing speeches and taking part in this year's radio speaking contest on "What Are My Opportunities and Responsibilities Under Freedom?"

Climax of National 4-H Week in Minnesota this year will be the state radio speaking contest on Saturday, March 12, on the University of Minnesota's St. Paul campus. (\_\_\_\_\_ from \_\_\_\_\_ county is one of the 17 district winners who will compete for the state title in radio speaking.) Talks of the state champion and reserve champion will be broadcast from 2:30 to 3 o'clock over WCCO Saturday afternoon.

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To all counties  
For use week of  
March 7 or after

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

KIND TREATMENT  
ESSENTIAL FOR  
COW PERFORMANCE

A large-scale University of Minnesota study now in progress is showing a lot of differences in how completely -- or incompletely -- cows let down their milk.

A report of the project, being conducted by Professor W. E. Petersen, comes from County Agent \_\_\_\_\_. They have found that improper milking or failure to provide the milking-time conditions that stimulate the cow to secrete enough "let-down hormone" -- oxytocin -- probably are bigger factors than inheritance in causing cows to dry up early.

Petersen and his associates have found that any excitement at milking time interferes with the secretion of oxytocin. Normally, oxytocin is secreted by a small gland near the cow's brain in response to a "milking stimulus" -- that is, udder massage by a nursing calf, a milking machine or a human milker.

But excitement can block oxytocin secretion which is the response to the milking stimulus. For example, pricking cows, even gently, with needles completely blocks the response. Cows startled this way, gave only the milk already down in their teat cisterns -- just a few squirts.

It took an injection of an oxytocin preparation developed by an eastern scientific chemical firm to get the cow to let down the rest of her milk.

Petersen reports that milder excitement may partly block the secretion of oxytocin, and result in a cow giving far less milk than normally. Handling the cow roughly, rushing her, not feeding her at a certain time when she's been led to expect feed, moving into a new stall or new barn, or anything exciting and overstimulating -- these are some of the things that can cause the cow to hold her milk back.

A key to proper milking is the fact that the cow must be relaxed -- and want to be milked -- if you're going to get all the milk she's got in storage. That means, says Petersen, kind and gentle treatment.

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University Farm News  
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Immediate Release

MINNESOTA FARM CALENDAR

- Mar. 3-4 Farm Forum, Nicollet Hotel, Minneapolis
- \* Mar. 4-5 Livestock Marketing Clinic, Institute of Agriculture, University of Minnesota, St. Paul 1
- Mar. 5-13 National 4-H Club Week
- \* Mar. 10 Careers in Home Economics Workshop, Institute of Agriculture, University of Minnesota, St. Paul 1
- \*\* Mar. 12 State 4-H Radio Public Speaking Contest, Institute of Agriculture, University of Minnesota, St. Paul 1
- \* Mar. 13-14 Annual Meeting, School of Agriculture Alumni Association, Institute of Agriculture, University of Minnesota, St. Paul 1
- \* Mar. 20-22 State Rural Youth Conference and Short Course, Institute of Agriculture, University of Minnesota, St. Paul 1
- \* Mar. 21-23 Liquefied Petroleum Gas Service School, Institute of Agriculture, University of Minnesota, St. Paul 1
- \* Mar. 21-26 Dairy Herd Improvement Association Training School, Institute of Agriculture, University of Minnesota, St. Paul 1
- \*\* Mar. 22 4-H Electric Projects Leader Training Meeting, Thief River Falls
- \*\* Mar. 23 4-H Electric Projects Leader Training Meeting, Mora
- \*\* Mar. 24 4-H Electric Projects Leader Training Meeting, Waconia
- \*\* Mar. 25 4-H Electric Projects Leader Training Meeting, Worthington
- \* Mar. 25-26 Horticulture Short Course, Institute of Agriculture, University of Minnesota, St. Paul 1
- \* Mar. 28-29 Fair Management Short Course, Nicollet Hotel, Minneapolis
- \* Apr. 5-6 Grain Market Conference, Institute of Agriculture, University of Minnesota, St. Paul 1
- \*\* Apr. 21-28 Northland Recreation Leaders Laboratory - Camp Ithuhapi, Loretto
- \* Apr. 25-30 Minnesota State Fire School, Institute of Agriculture, University of Minnesota, St. Paul 1

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

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