

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
September 4, 1962

To all counties
4-H NEWS
Immediate release

BETTER BREAKFASTS
FOR TEENAGERS

If Americans are well fed, why aren't American teenagers getting their daily food needs?

One answer, says Grace Brill, extension nutritionist at the University of Minnesota, is that they're skimping on or actually skipping breakfast.

Research on teenage diets reveals that the older the child, the poorer the diet. From childhood to teen-age, the percentage of young people with poor diets increases sharply. Six out of 10 girls and four out of 10 boys have poor diets. The teenage girl is the poorest fed member of the family.

One reason the teenage girl is not as well fed as the teenage boy is that she needs about one-third fewer calories. Teenage girls need 2,400-2,600 calories; teenage boys, 3,100-3,600, according to the National Research Council recommended daily dietary allowances.

The fewer calories you eat, the more important it is to make all of them count, Miss Brill says. Your diet must contain all the needed nutrients for health and vitality. If you skip breakfast, about a fourth of these nutrients are lost from your diet and can't be replaced.

Don't worry about gaining weight if you eat a good breakfast, Miss Brill says. If you're not hungry you won't be so tempted to snack between meals. Breakfast is the energy-supplying meal that keeps your body in tip-top running order. It keeps you looking and feeling alert and attractive and prevents that 11 o' clock slump.

A good breakfast supplies nutrients lacking in teenage diets: vitamin C in fruit or juice; calcium in milk; B vitamins and iron in cereal products and eggs.

September, "Better Breakfast Month," is a good time to get the breakfast habit: eat a good breakfast every morning.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
September 4, 1962

To all counties

A Farm & Home Research Report

For immediate release

EFFICIENT DAIRYMEN
LIKE THEIR WORK

If you're milking cows, the more you know about them, the better you like them and the more recommended practices you follow, the greater your chances for success.

If, on the other hand, you don't like dairying, don't care to be well informed on the subject, don't follow recommended practices and don't do a good job with daily dairy tasks, you'd better look for other work or other livestock.

At least that's the indication of a study recently conducted by Roger Johnson and S. A. Engene, University of Minnesota agricultural economists. To learn how efficient farmers differed from those less efficient, Johnson and Engene studied dairy farmers in Minnesota's SE and SW Farm Management Associations.

They measured efficiency in terms of average butterfat production per cow.

Farmers who got top production -- and therefore were judged more efficient -- would rather work with dairy cattle than with other livestock or crops.

They scored high in knowledge of dairy production facts and relationships. They follow most recommended dairy production practices. And, judging from conditions on their farms, they're superior in carrying out dairy production tasks such as cleaning and feeding.

Farmers with highest levels of dairy knowledge followed most of these production practices generally recommended by dairy specialists:

- * Feed grain to each cow according to her level of production.
- * Feed grain to cows that are dry.
- * Keep individual cow production records.
- * Feed grain with pasture.
- * Mark and keep records of all heifer calves born.
- * Specify the bulls to be used in artificial breeding.
- * Use rotational grazing or confined summer forage feeding.
- * Use a hay conditioner or grass silage to improve forage quality.

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September 4, 1962

To all counties

Immediate release

FARM FILLERS

Fast milking -- Of dairymen who replied to a Steele County survey, half of those operating two milker units milked 20 or more cows per hour. But only about half the dairymen operating 3 units milked more than 23 cows in the same time. Question is whether you can afford the risk of leaving machines on too long to milk just three extra cows per hour.

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Feeding value of an acre of sorghum is about 50 percent higher when fed as silage than when fed as fodder, according to L. H. Smith, University of Minnesota agronomist. Best stage of maturity for sorghum to be cut for silage is when seeds have reached the hard dough stage. Silage made from green, immature sorghum is likely to be sour and will not keep well.

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Feeding pigs? Pigs fed shelled corn, either whole or ground, and a good protein supplement free choice, gain as rapidly and from 6 to 10 percent more efficiently than pigs fed complete mixed rations. That's according to several recent University of Minnesota feeding trials.

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Here's one answer to the farm cost-price squeeze. Bring in a soil sample to find out what your fields need. Every fertilizer dollar you spend -- if based on a soil test -- can return two in extra profits.

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Lower machinery costs on large farms? Yes, say John Ying and S. A. Engene, University of Minnesota agricultural economists. In a study of farms in the SE and SW Farm Management Associations, they found machinery and power costs on farms of 141 to 180 acres averaged \$18.80 per acre. That compared to only \$12.20 per acre on farms of 401 to 500 acres.

However, the 141 to 180-acre farms had higher yields than those of 401 to 500 acres. The yield increase amounted to \$6 per acre -- nearly enough to offset the higher machinery cost.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
September 4, 1962

To all counties

For use the week of
September 9

First in a series of
outlook reports

HOG OUTLOOK
LOOKS GOOD

The hog price picture looks good for the rest of 1962, according to outlook information received this week by County Agent _____.

Extension economists K. E. Egertson and H. G. Routhé, and Ray Arthaud, extension animal husbandman at the University of Minnesota, say the expected seasonal increase in swine marketings this fall will cause a slight downward trend of about 40 cents per month from the \$18 per cwt. established in July to a low in November.

The specialists say that with slightly smaller pork supplies and less competition from beef and poultry, hog prices should at least equal the \$16.35 per cwt. average established on eight major markets during the last quarter of 1961.

For the first quarter of 1963, barrow and gilt prices are expected to move about 2 to 4 percent higher than the \$16.50 per cwt. average established in 1962.

During the second quarter of next year, barrow and gilt prices are expected to trend seasonally downward from the first quarter level. But they should hold nearly the same to only slightly less than the 1962 level of \$16.10 per cwt.

Summer and fall 1963 slaughter rates and hog prices will depend greatly on farrowing levels this winter and spring. It now appears likely that 3 to 6 percent more pigs will be farrowed for a total 1963 spring pig crop of 51 to 53 million head. Because of the resulting increase in slaughter, hog prices during the third and fourth quarters of 1963 will not likely reach levels established this year.

The specialists say the longer-run outlook for pork looks brighter than in the past. Production stability has eliminated some of the wide gyrations in prices. New production and management techniques have lowered costs. And improved quality should reduce some of the consumption shift away from pork.

Future improvement by individual hog producers will strengthen their individual competitive position and long-run outlook.

Complete hog outlook information sheets are available at the county extension offices.

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To all counties

Immediate release

CORRELATION MEANS
DEPENDABLE RESULTS
FROM SOIL TESTS

There's a lot more to reading the results of a soil test and making a fertilizer recommendation than you might suspect. Take correlation.

Correlation is the reason you can depend on fertilizer recommendations based on tests at the University of Minnesota Soil Testing Laboratory. It's the background fertilizer field research program that evaluates soil tests and forms the basis for fertilizer recommendations based on the tests.

And correlation is the reason recommendations are reliable.

According to Lowell Hanson, extension soils specialist at the University of Minnesota, each soil sample analyzed in the University's Laboratory is carefully compared to many samples of similar soils on which fertilization or liming trials have been conducted.

Then, with all factors considered, your lime or fertilizer recommendation is drawn up to specify the combination of nutrients that'll give you greatest returns per dollar invested.

It's hard to miss with a soil test from the University of Minnesota Soil Testing Laboratory. Get samples and supplies from your county agricultural agent.

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Institute of Agriculture
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September 4, 1962

To all counties
ATTN: HOME AGENTS
Immediate release

LABEL IS CLUE TO
SHRINKAGE MYSTERY

The Sherlock Holmes of the family doesn't need a magnifying glass to solve the mystery of shrinkage of material. All this famous mystery-solver needs to do is read the label on the garment.

Remember that neither price, look nor feel of a fabric gives a clue to shrinkage, reminds Thelma Baierl, extension specialist in clothing at the University of Minnesota.

Look for clues in labels to help you discover degrees of shrinkage. The completely "not guilty" of shrinkage verdict can't be given to any fabric. Even a carefully processed garment may shrink a little, perhaps less than one percent.

The term "sanforized" on a label means that the fabric won't shrink more than one percent in either length or width. "Preshrunk" has meaning only when followed by a line telling how much the fabric will shrink, such as "Preshrunk--will not shrink more than one percent."

"Will not shrink," "shrink proof," "unshrinkable" or "shrinkless" will not stand up in the courtroom. These are inaccurate terms.

Homemakers can do their own detective work. When buying a garment, multiply the shrinkage percentage given on the label by the number of inches in the garment. This result gives you the number of inches a garment may shrink in length. For example, a dress for a woman measures about 50 inches long; one percent shrinkage would change the length by 5/10 or half an inch. But three percent shrinkage would make a change of an inch and a half, hence alterations would be necessary.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
September 11, 1962

To all counties

Immediate release

SOIL TESTING FEE
BUYS MANY SERVICES

The dollar you spend for a soil test buys five tests, a permanent record, and a lime and fertilizer recommendation. Here's what happens when your soil sample reaches the University of Minnesota Soil Testing Laboratory.

Each sample receives a permanent file number which is stamped on the information sheet and on the bag to which the sample is transferred. The sample is then air dried for about one week and crushed and sieved in a soil grinder. It is then ready for the five individual tests each sample receives.

According to John Grava, Soil Testing Laboratory supervisor, the pH test, which measures soil acidity or alkalinity, probably tells more about soil fertility than any other single measurement.

For this test, a small portion of soil is measured and placed in a paper cup. An exact amount of distilled water is added. After half an hour, the mixture is stirred, electrodes are immersed in it, and the pH value read from a meter.

The phosphorus test extracts phosphorus from the soil. Solutions are added to the extraction which combine with extracted phosphorus and develop a blue color. Solutions from soil containing little phosphorus is nearly colorless. Soils well supplied with phosphorus produce dark blue extracts. Color differences are compared with a colorimeter, an electronic instrument, to measure phosphorus availability.

For the potassium test, soil extracts are passed through a flame photometer. This instrument is so sensitive that a trace of potassium from cigarette smoke causes the meter needle to jump--a reason why no smoking is permitted while testing is underway.

The laboratory technician determines soil texture by rubbing moist soil between his fingers. It is the only test which relies on man's judgment and experience rather than an instrument.

As a precaution against any possible error, every 24th sample in the line is a check sample with known test readings.

Results of each test are machine punched on an permanent file card, printed on a test report form, and with the sample information sheet, returned to the county agent, who is trained to make fertilizer recommendations.

Average time required for sample drying, testing and reporting is 10 to 14 days.
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Information Service
Institute of Agriculture
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St. Paul 1, Minnesota
September 11, 1962

To all counties

Immediate release

FACT SHEETS TELL
HOW TO HANDLE
HIGH MOISTURE CORN

If you're faced with prospects of a wet corn crop this fall, two fact sheets available from your county agent are important reading.

They are Agronomy Fact Sheet No. 9, "Corn Silage," and Agricultural Engineering Fact Sheet No. 12, "Storing and Drying Wet Corn." Both are written by extension agronomists and agricultural engineers at the University of Minnesota, and are available without charge.

Here are some of the corn harvest tips they offer.

Harvest whole plant corn silage when grain is fully dented but stalks and leaves are still green. Average moisture content for the green material should be 65 to 70 percent.

Ear corn silage with a kernel moisture content of 30 to 35 percent and shelled corn silage with 30 percent moisture has given good feeding results. Coarse grind ears or kernels through a hammer or burr mill to aid packing, increase feed efficiency, and soak up added water--if needed.

Good corn silage requires airtight storage. Covering silo doors and the top with plastic sheeting will help reduce silage losses. A silo built to hold whole plant silage may need reinforcement to hold ear or shelled corn silage; your county agent or silo manufacturer can advise.

(more)

add 1 fact sheets about high moisture corn

As far as dry corn storage is concerned, moisture content of the corn will determine what you do with it. Maximum safe kernel moisture content for storing ear corn in wide cribs is 18 to 20 percent. Narrow cribs-- $4\frac{1}{2}$ to 5 feet wide--will safely store ear corn with 35 percent moisture.

For successful storage in narrow cribs, provide a concrete floor or a raised floor to prevent rodent damage. Locate cribs away from buildings or other obstructions to make best use of natural air movement. Place cribs at right angles to prevailing winds. And remove husks, loose kernels and other debris from the corn.

Shelled corn with 15 to 16 percent moisture may be stored for short periods during winter months. For immediate sale as U. S. No. 2 corn, moisture content may be 15.5 percent. For longer storage periods, moisture content of shelled corn should be under 13 percent.

Wet corn can be dried artificially, but unless, drying temperature is held below 140 degrees F., grain is likely to be damaged for industrial use.

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FARM FILLERS

Feedlot bloat can usually be controlled by feeding hay, corn cobs or other coarse fibrous feed, according to John Donker, University of Minnesota dairy husbandman. However, once the disease is established in cattle fed a high grain ration, it's hard to eliminate, even when considerably more roughage is added to the ration.

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Feeding value of good quality whole plant corn silage is high. A feeding of 30 pounds per day of well-eared corn silage will contain about 3 pounds of corn grain.

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More than 10 million people today have jobs involving storing, transporting, processing and merchandising farm products, according to E. T. York, Jr., administrator of the Federal Extension Service. York recently told the Alpha Gamma Rho annual convention meeting in Minneapolis that farmers now spend more than \$26 billion a year for goods and services to operate their business. That's about four times the amount spent for those purposes 20 years ago.

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Minnesota farmers grew 2.35 million acres of soybeans last year, twice the acreage grown 10 years ago. The crop was worth more than \$129 million. According to James P. Houck, Jr., University of Minnesota agricultural economist, soybeans furnished more income to Minnesota farmers during 1959-60 than any other field crop except corn.

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Information Service
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University of Minnesota
St. Paul 1, Minnesota
September 11, 1962

To all counties
ATT: HOME AGENTS
Immediate release

CHOOSE THE
CORRECT TYPE
OF HANGERS

Wire hangers from the dry cleaners should not become a permanent accessory in your clothes closet, cautions Thelma Baierl, extension specialist in clothing at the University of Minnesota.

These wire hangers are not shaped correctly for most clothes that are to be hung for some time. They can cause the garment to lose shape and droop. They may cause threads to distort and stretch, leaving a bulge.

A serious and ever-present problem with wire hangers occurs when they are used to hang a washed garment up for drying. These hangers were not designed for home use, particularly after washing, according to Miss Baierl. Often they will leave rust marks on clothes. Wet or dry, a hanger will cause an unsightly crease mark across the trouser legs or the center of the skirt that is hung across an unprotected bar of a hanger.

To avoid these crease marks, rust stains and drooping shapes, Miss Baierl suggests using the press-type or clothes-pin type hangers for skirts, and pants holders for slacks.

Use good judgment in selecting your wooden or plastic hangers. The design of the hanger is important. A slim contour hanger is not much better than a wire one. Hangers with extra thick ends will keep coats in shape even if they are wet or damp from the rain. It is not necessary that your hanger be fabric covered for good service.

If you are short on closet space, heavy, metal multiple blouse or skirt hangers may solve your storage problem. With this type of hanger, you may hang as many as six blouses or skirts in tiers.

Never hang knitted garments on hangers. Fold them carefully in drawers.

Don't forget about the children. There are hangers scaled especially for their clothes, too.

Information Service
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University of Minnesota
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September 11, 1962

To all counties
4-H NEWS
Adapt and use as needed

LOCAL 4-H'ERS TO
GIVE PARTIES
IN OCTOBER

October is party month for present and potential 4-H'ers in _____
County.

The _____ 4-H clubs in the county will be inviting young
(no.) people between the ages of 9 and 21 to a party carrying out the theme
_____. Guests can look forward to an interesting and enter-
taining evening, October _____.

Guests will learn what 4-H is, and the requirements and benefits of 4-H membership. They will learn why more than 53,000 Minnesota boys and girls want to "learn and have fun in 4-H."

Minnesota 4-H'ers have something to be proud of, says County Agent
_____. They have the fifth largest enrollment in the Midwest and are third in the nation in re-enrollment for 1961. Minnesota 4-H'ers remain active in their clubs longer than the average member in the United States--3.2 years compared to the national average of 2.7 years. Average age of Minnesota 4-H members--12.8 years--is also higher than the national average.

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University of Minnesota
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To all counties
4-H NEWS
Immediate release

LET YOUR
SEWING MACHINE
WORK FOR YOU

Your sewing machine is an expensive piece of equipment, so make use of it by letting it work for you.

If you learn some simple adjustments, your sewing machine can do many things that you've done by hand, says Tbelma Baierl, extension specialist in clothing at the University of Minnesota.

Adjust the length of the stitch to suit the material and the area you are sewing. Use a short stitch when working with fine material (18-20 stitches per inch). In areas where you want to cut closely, make your stitch length very short. For example, when making bound buttonholes, collar points or scallops, set the stitch length at 25-30 stitches per inch.

For average sewing, set the stitch length at 12-14 stitches per inch when working with medium to lightweight fabrics. Your machine will then give smoother lines to your garment.

Lengthen the stitch to 6-8 stitches per inch for pattern markings (such as buttonholes) and for basting. You can save a great deal of time if you machine-baste rather than do it by hand. The stitch will be strong enough for you to try the garment on.

By making the upper tension slightly looser and putting a stronger thread on the bobbin (Dacron, nylon or Taslan), you can stitch fine and evenly distributed gathers on your machine. Ruffling on a blouse and gathering a full skirt is easy to do because you can put in two rows of gathers on the machine.

To make the bias and curved edges of your material stay in the exact size and shape of the paper pattern, always stay stitch before doing any other steps in construction. Stay stitching is a line of directional machine stitching through one thickness of fabric. It's done with a regular stitch length and thread to match your fabric. Your machine is working for you to give proper shape to the garment.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
September 18, 1962

To all counties
Immediate release

PLAN NOW TO
SPREAD LIME

It's too late to worry about lime for alfalfa when you pull your grain drill out of the shed next spring.

The time to plan for next spring's alfalfa seeding -- and for the lime it needs -- is right now, while you're combining beans and picking corn, according to Lowell Hanson, extension soils specialist at the University of Minnesota.

Reason is that a lot of land to be seeded to alfalfa is acid, and must be limed for a successful seeding catch. And changing an acid soil to one neutral enough for alfalfa takes time--at least six months, even when lime is well mixed with surface soil.

That fact alone makes it necessary to find out this fall which fields are acid, and how much lime they need. A set of soil samples will give you this information, along with your phosphorus and potassium fertilizer needs.

Besides eliminating acidity, lime benefits soil in other ways:

- * Native soil phosphorus is more available in acid soils after liming.
- * Nitrogen-fixing micro-organisms are more effective.
- * Old crop residues are more rapidly decomposed to soil humus.

Other good reasons for fall liming are that there are no road restrictions to worry about, and fields are in good condition to carry heavy truck spreaders. Time for liming is short each year because of much late harvested beans and corn, and because you can't count on spreading during the winter.

So take quick action on liming. There's not much time this fall, and lime is essential for high yields of alfalfa.

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Information Service
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University of Minnesota
St. Paul 1, Minnesota
September 18, 1962

To all counties

F A R M F I L L E R S

Deadline date for filing your federal gas tax refund form is midnight,
September 30. You have four cents coming for every gallon of gasoline you used
for agricultural purposes after June 30, 1961, and before July 1, this year. But
you have to apply to get it. File Form 2240 with the District Director of Inter-
nal Revenue. If you've misplaced your form, pick one up at the extension office.

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Here's another important advantage of fall soil testing. If your soil test
indicates need for lime, fall is an ideal time to apply it. University of Minne-
sota extension soils specialists say lime added in fall has time to begin benefi-
cial reactions with the soil before spring planting season.

* * * *

Don't neglect your dairy herd, no matter how busy you are with other work.

Ralph Wayne, extension dairyman at the University of Minnesota, says how you
feed in fall can determine how much profit you'll make from your dairy herd during
the rest of the year.

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How much vitamin A supplement for feeder cattle? O. E. Kolari, University
of Minnesota animal husbandman, made these recommendations at Beef Cattle-Grass-
land Field Day: Supplement rations of fattening cattle fed limited amounts of
average quality hay and corn with at least 10,000 units of vitamin A per head
daily. And supplement rations of cattle fed poor quality hay or no hay and corn
and other grains with 20,000 units of vitamin A per day.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
September 18, 1962

All counties
Immediate release

Another in a series of outlook
reports

LOWER RETURNS
LIKELY FOR
CATTLE FEEDERS

Below average labor returns for the 1962-1963 feeding year are the prospect for beef cattle feeders, according to outlook information received by County Agent _____.

Barring unforeseen developments, 1963 will be characterized by trends toward increasing cattle numbers, larger supplies of slaughter cattle, increased marketings of cull cows, and slightly weaker prices during the first eight or nine months of the year.

D. E. Erickson and H. G. Routhe, University of Minnesota extension economists, and Robert Jacobs, extension animal husbandman, expect marketings of fed cattle to increase over year earlier levels by the end of 1961.

They say pressures of heavier marketings may move prices of fed cattle near last year's levels by December. Increased cow slaughter will probably put downward pressure on prices of lower grade cattle. And price differentials between standard and choice grade could widen as much as \$4 to \$5 per hundredweight this fall.

By February, fed cattle prices will likely be \$1 to \$2 per hundredweight below year earlier levels. Prices will likely continue below levels of a year ago during the first eight to nine months of 1963. Late months of 1963 could see slaughter cattle prices average close to this year's level.

Feeder calf prices are expected to be firm during the next few weeks. Peak movement of calves at heavier weights later this fall may push prices down \$1 to \$2 per hundred from present \$30 to \$31 levels. Some weakness may occur in yearling feeder steer prices during November and December. However, bulk of the yearling supply will then have moved into the feedlots.

Feed costs in the feeding year ahead will likely be about the same, according to the specialists. They say fair to average labor returns are in prospect on good to choice yearlings laid into the feedlot for less than \$25 per hundred. Generally, however, cattle feeders can look for less favorable prices compared to this past feeding year.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
September 18, 1962

Immediate release

DON'T OVERFEED
BEEF COW HERD

Winter feed for a beef cow herd costs a lot of money.

Yet Raymond L. Arthaud, extension animal husbandman at the University of Minnesota, says many beef cow herds get better winter rations than they need. This directly increases costs and decreases calving percentage.

Arthaud says mature pregnant cows in medium or better condition in fall can lose weight during winter without harm.

Beef cows may glean corn fields or aftermath from hay or small grain fields for several weeks in fall. If alfalfa hay is plentiful cows may be full fed alfalfa hay with a salt-mineral mixture for the balance of the winter. Or cheapen the ration by feeding only 1 pound of alfalfa hay per 100 pounds of liveweight and substituting cheaper roughage -- even ground corn cobs -- for some alfalfa.

A full feed of good quality corn silage provides more energy than a pregnant cow needs. Cows in medium condition have been wintered satisfactorily on 15 to 20 pounds of corn silage, 8 to 10 pounds of ground corn cobs, about 1 pound of mixed grass-legume hay, and 0.6 to 1.2 pounds of oil meal per head per day.

Corn or other grain is not normally needed or recommended for beef cows. However, when hay or other forage is scarce and expensive, grain may be a cheaper source of energy.

Pregnant replacement heifers calving at two years of age should gain 0.75 to 1.25 pounds per day during winter. Good legume hay and mineral will often maintain that rate of gain. Corn silage may replace at least part of the legume hay.

If only grass hay is fed, supplement it with at least 1 pound of oil meal or its equivalent per head daily. One to four pounds of grain per head per day may also be required for adequate gain.

Loose salt and a mineral mixture of two parts trace mineralized salt and one part steamed bone meal should be available at all times. Or use economical commercial mineral mixtures.

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Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
September 18, 1962

To all counties
ATT: HOME AGENTS
Immediate release

FALL FASHIONS
DEFY TIME
AND SPACE

1962 fall fashions have taken a trip through time and space before arriving at your door. And once they're at your door, it's up to you to adapt them to your personality and uses.

Fall fashions take their cue from a variety of influences. For example, the travels of the First Lady bring rajah coats and suits from India; remembrances of Greta Garbo show up in the Mata Hari silhouette with its plastered bodice, rounded hips, high collar; "Cleopatra" and "Last Year in Marienbad," current movies, helped launch the vogue for beautiful fabrics in soft, flowing lines. Ideas are even derived from the twist and space astronauts' suits!

All these scattered elements seem to evolve into styles that have a common look--refined leanness that is close to the body but far from tight, along with casualness of cut handled with suppleness and elegance, says Thelma Baierl, extension clothing specialist at the University of Minnesota.

Important this fall is the spare look with its clean, uncluttered silhouette. Although tailored in its description, the spare look is almost feminine because of the beautiful fabrics used. Coats, suits and unbelted sheath dresses emphasize the lean cut and narrow darting of the spare look.

Many dresses this fall get a soft look from curved seams and bias cutting--the natural look. The waistlines on these dresses may have a smoothly fitted midriff or may be lowered and then sashed or belted.

Influence of the West is felt in the casual look and even invades the territory of the ever-popular shirtwaist. Top stitching, saddle stitching, shaped shoulder yokes and leather trim accentuate this look. Movement in skirts is achieved by enormous box pleats, six-gored skirts and the A-shape. In spite of the amount of material, the general effect is slimming.

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September 18, 1962

All counties
4-H NEWS
Immediate release

SNACKS CAN BE
GOOD FOR YOU

Snack foods can play an important part in a teenager's diet, reports Home Agent _____.

Teenagers are perpetual snackers, since three meals a day often do not furnish enough of the foods they need. From 15 to 17 percent of their food intake is through these extra meals.

But too often snack foods contain "empty calories"—that is, they contribute calories without any important nutrients, say extension nutritionists at the University of Minnesota.

Surveys show that many teenagers have diets that are inadequate for health and for the vitality and pep typical of this age group. Skimpy breakfasts and poorly chosen snack foods add to the problem. The less a teenage girl eats at breakfast, the more snacks she is likely to eat.

Much of the newest diet research points out that frequent nutritious nibbles are better than extra-large meals widely spread. If snacks are nutritious they help to maintain good general and dental health.

Your body should have these foods every day: meat, fish, eggs or legumes; milk or milk products; vegetables; fruits; breads or cereals. Snacks should be chosen from these groups of foods. They should be counted with the total daily calorie intake.

Here are some suggestions from extension nutritionists for snack foods for teenagers:

add 1 - snacks good for you

At home or for parties, serve meat or meat products dressed up as barbecues or chiliburgers, hamburgers smothered in chili or roasted frankfurters stuffed with cheese and wrapped in bacon.

Milk shakes with ice cream and fresh fruit flavoring are delicious and nutritious. Or try making a punch with frozen orange juice and crushed fresh fruit blended with finely chopped ice.

Ice cream, milk, potato chips with dips and small sandwiches with meat or spreads are always good. And don't forget fresh fruit.

Try arranging a cheese, cold meat or fruit platter. The platter will decorate your table and will furnish tasty, appealing and nutritious snacks.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
September 25, 1962

To all counties
Immediate release

F A R M F I L L E R S

If you're worried about high-moisture ear corn but have no mechanical drying unit, note this finding: Ear corn put in a narrow ($5\frac{1}{2}$ feet wide) crib at the University of Minnesota Waseca Station one fall contained only 15 percent moisture the next spring. And there was no spoilage. Extension engineers also point out that such a crib should be at right angles to prevailing winds--and away from other buildings that might block air movements.

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Keep that tractor-mounted loader at the low position when you're moving from one job to another. And don't be in too much of a hurry. Extension farm safety specialist Glenn Prickett at the University of Minnesota warns about the constant danger of hitting electric power lines overhead. Power of electricity to do work is--for careless people--also power to kill.

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Fertilizing alfalfa in the fall works as well as fertilizing in the spring. That's what John MacGregor, University of Minnesota soil scientist, says after 6 years of trials at the Rosemount Agricultural Experiment Station. Total yield differences between spring and fall treatment were too small to matter.

* * * *

Signs of cholera in hogs: A few refuse to eat. Sick ones stay in the nest; when you drive them out, they often have arched backs and may shiver. The rest of the hogs may seem well for several days, then others seem to be affected the same way. As time goes on, sick hogs become tucked up in the flank and have a weak staggering gait. Weakness is most noticeable in the hind legs. When you see the first signs, better call a veterinarian, advises Ray Solac, extension veterinarian, at the University of Minnesota.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
September 25, 1962

To all counties
For Immediate Use

LAMB RETURNS
MAY BE LOWER
IN COMING YEAR

If feeder lamb prices remain high this fall as expected--with only a partially offsetting increase in 1963 slaughter prices--labor returns in 1962-63 for lamb feeding may be somewhat under a year earlier.

But these returns should still be much higher than in 1960-61. So say extension economists K. E. Egertson and K. H. Thomas at the University of Minnesota. They base their estimates for the 1962-63 lamb feeding period on:

1. Net production costs of \$16.35 per head, including original cost of 70 pound lambs.
2. Average net market prices of \$17.70 for lambs weighing 100 pounds.

That leaves an expected average labor return of \$1.35 per head for choice and prime slaughter lambs, compared to \$2.15 in 1961-62 and 23 cents in 1960-61.

What is behind these changes in outlook? The economists say for one thing, fewer feeder lambs will find their way to the corn belt this fall. The late lamb crop, which furnishes most feeder lambs, was down 5 percent. So feeder lamb prices should be about \$2 to \$3 above last fall, without much chance of weakening later on.

Lamb feeding won't be as heavy, so slaughter of old crop lambs in the first three months of 1963 should run about 5 percent under 1962 levels. Choice slaughter lamb prices are expected to be 4 to 8 percent higher than the \$16.90 per hundred average in the first quarter of 1962.

-more-

add 1 -. sheep outlook

However, the expected increase in slaughter prices will not entirely offset the projected increase in feeder lamb prices.

So much for lamb feeding. Now what about ewe flocks? The economists say numbers of "stock" sheep (breeding ewes and rams) in the corn belt increased 25 percent in the last ten years. On January 1, 1962, there were 1.5 million fewer sheep and lambs on farms than a year earlier. This points to completion of a sheep production cycle which began in 1957. Look for a build-up in 1963.

The 1962 lamb crop was down 4 percent from 1961, because of fewer ewes on farms and fewer lambs born per 100 ewes.

Spring lamb slaughter in 1963 is expected to run 3 to 6 percent under levels of a year earlier. Prices on lambs born in the first three months and sold as spring lambs after May 1 should average nearly as high as in 1962. Then producers can look for a normal seasonal decline through summer 1963, when the bulk of spring lambs go to market.

Incentive level for shorn wool for the period April 1, 1962 through March 31, 1963, is 62 cents per pound. Open market prices for wool are likely to be somewhat higher than a year earlier.

Everything considered, profit prospects look reasonably good for native ewe flocks in 1963, especially for lambs born earlier, creep fed, and marketed early.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
September 25, 1962

To all counties
For immediate use

DON'T GAMBLE
ON GRAIN SEED

Any farmer takes a risk now and then, but grain seed buying is one place where gambling rarely pays off.

Order certified seed of recommended varieties. That's advice from Harley Otto, extension agronomist at the University of Minnesota. The odds are you'll get better disease resistance, better standing grain, and fuller bins next fall.

Why is certified seed a sounder buy? For one thing, it comes from a known pedigreed source. It gets both field and laboratory inspections to make sure it has no off-type kernels. It must meet standards of the Minnesota Crop Improvement Association for weed seed content, purity and germination--standards which, in the case of weed seed, are higher than state law requires.

What are the risks with non-certified seed? One is in getting seed partly or entirely of a different variety than it's claimed to be. Another is getting low germination and high weed seed content.

A few years back, the state Department of Agriculture found in a survey that where farmers used seed from their own bins, 22 percent of the samples contained so many weed seeds that, had the seed been up for sale, it would have violated state law.

Of seed from neighbors, 24 percent would have violated the weed statute. All this amounts to one chance in five--or worse--of getting more weed seeds than the legal minimum (for seed on sale) if you use non-certified stock. And that's too much of a risk these days.

Sources of certified seed are easy to find. They are listed in the 1963 Minnesota directory of registered and certified seed. You can get a copy from the county extension office or from the Minnesota Crop Improvement Association, University of Minnesota, St. Paul 1.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
September 25, 1962

To all counties
For immediate use

WEATHER AFFECTS
RESULTS FROM
WEED CHEMICALS

When you're totting up 1962 results from weed chemicals, better keep Old Man Weather in mind. Those heavy rains helped some chemicals and hindered others.

Farmers who used Atrazine in corn found better results because of the high rainfall--compared to 1961 when moisture was below average. Randox-T, on the other hand, did better in the low rainfall year.

Agronomist Richard Behrens at the University of Minnesota says these differences are what you'd expect judging from how these chemicals work. Atrazine moves slowly in the soil. It needs a good deal of water to carry it to top soil layers where weed seeds germinate. Then soil particles hold it there and heavy rains don't wash it down.

Randox-T is different in two important ways. First, it takes much less rain to carry Randox-T into the top soil layers. Second, Randox-T is not held by the soil particles in moist soil. Heavy rains quickly carry it below the weed seeds where it can't do its job.

Randox-T and Atrazine are used mostly in corn. But Behrens says rain accounted for similar differences among Randox and Amiben, often used to fight weeds in soybeans. Randox works much the same way as Randox-T and therefore gave somewhat poorer results in 1962 when rainfall was above average. Amiben, though, needs more rain to become active and doesn't lose its punch after heavy rains.

With 2,4-D--a sort of "old reliable" chemical for weed control--rainfall doesn't make so much difference since the chemical goes on the foliage. The important thing with 2,4-D, Behrens says, is putting it on at the right time and in right amounts. An application too late on corn can mean poor weed control and injury to the crop.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
September 25, 1962

To all counties
ATT: HOME AGENTS
Immediate release

CHOOSE WINTER
COAT WISELY

A winter coat carefully chosen will give you years of wear.

If this is your year to buy a winter coat, here are some shopping pointers to keep in mind from Thelma Baierl, extension clothing specialist at the University of Minnesota:

- If yours is a one-coat wardrobe, select an all-purpose coat that will suit your activities for all occasions.
- Get a basic coat with flattering lines.
- If you plan to add a number of garments to your wardrobe, choose your coat first. Then select dresses, hat, bag and gloves to complement your coat.
- Buy the best quality coat you can afford.
- Choose a coat that will not go out of fashion quickly. Studies show that the average coat lasts seven years.

When it comes to selecting fabric, Miss Baierl says, remember that a firmly woven fabric with wrinkle resistance always gives satisfaction. A fabric that has warmth without weight is more comfortable than a heavy fabric that provides the same amount of warmth.

Coat fabrics this season have less surface interest than was the case last year. You'll find fewer shaggy and looped fabrics. There are many fake furs, however.

Fur trim is popular. It is used on collars, to create interest on coat sleeves, cuffs, down the front, around coat bottoms and even on buttons.

Brown in all its shades is prominent in coats this fall--from string beige to russet to chocolate. Dull and bronzed greens are also important.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
September 25, 1962

To all counties
4-H NEWS
Immediate release

4-H'ERS TO EXHIBIT
AT JUNIOR SHOW

A big event for many county 4-H Club members and others throughout Minnesota will be the 1962 Junior Livestock Show in South St. Paul Oct. 1-4.

More than 700 Minnesota 4-H'ers have won trips to the show to exhibit market livestock.

* (Add a paragraph here on your winners and tell what they will exhibit)

Animals to be exhibited at the show include 311 beef steers, 202 market wether lambs, 178 barrows and 15 trios of lambs. All livestock were selected from among the best exhibits either at the county fair or a local achievement day. Counties receive a quota of trips to the Junior Livestock Show based on the number of members enrolled in the steer, barrow, wether lamb and trio projects.

Monday, Oct. 1, is entry day. Entries must be in place and registration completed by 6 p.m., according to Osgood Magnuson, coordinator of the show and assistant state 4-H Club leader at the University of Minnesota.

Swine and sheep will be judged Tuesday morning, Oct. 2, and beef will be judged Wednesday morning. Showmanship contests for barrows and lambs are scheduled for Tuesday afternoon and for beef Wednesday afternoon.

Approximately 150 of the top-ranking exhibits will be sold at auction on Thursday afternoon, beginning at 1:15. All other animals are sold by the commission companies to which they are consigned. Selling by commission companies starts at 8 a.m. Thursday.

Exhibitors will be guests of the St. Paul area Chamber of Commerce at a banquet at Hotel St. Paul Wednesday evening. Other activities planned for the

add 1 -- 4-H'ers exhibit at show

4-H'ers include special tours, a 4-H roundup program in South St. Paul High School and an evening at the Cow Palace in South St. Paul with entertainment by the St. Paul Figure Skating Club. Tours are being arranged to the Capitol, State Highway Building, State Historical Society, Museum of Science and Natural History and the Coca Cola plant.

Sponsors of the Junior Livestock Show are the Minnesota Livestock Breeders' Association and the University of Minnesota Agricultural Extension Service, in cooperation with the South St. Paul Chamber of Commerce, St. Paul Chamber of Commerce and the South St. Paul Jaycees. Businessmen in the Twin Cities and throughout the state help support the show and sale.

-jbn-

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 2, 1962

To counties in
Northeast and Southeast
districts
For immediate use

SOIL FERTILITY
HELPS ALFALFA
SURVIVE WINTER

Alfalfa fields with plenty of lime and potassium are the ones most likely to pull through a hard winter.

Here's why. As Curtis Overdahl, extension soils specialist at the University of Minnesota, points out, resistance to winter killing in alfalfa is closely linked to content of water soluble protein in the crown--the part of the plant just above the roots.

Level of this protein, University research shows, is usually highest when the field is limed to a pH value of 6.5 or higher and potassium goes on according to soil test. The pH level is a measure of soil acidity--the higher the value, the lower the acidity.

Lime helps develop root nodules, which fix nitrogen in alfalfa. If few nodules develop, the plant may run short on nitrogen. And that could mean low protein and less resistance to winterkill..

Sulfur deficiencies, which may occur in North Central Minnesota, also may lead to protein shortages.

Overdahl says that for least winterkill, soils apparently need a balance between phosphorus and potassium. Soils high in phosphorus need extremely high rates of potassium. The reverse may also be true; high potassium soils may need phosphorus to keep the proper balance.

Here are recommendations to keep alfalfa winterkill to a minimum.

Take soil samples this fall, both on established alfalfa stands and on fields slated for seeding next year. Put on whatever amounts of potassium and phosphorus the tests call for, and lime to a pH level of 6.5 or higher. Lime can go on this fall for seedings in either 1963 or 1964.

If the soil is low on sulfur, add some gypsum or other sulfur-containing material. Finally, avoid late cutting or grazing on established stands. Taking the crop off too late may deplete roots of food reserves during the short regrowth period before a killing frost.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 2, 1962

To all counties
For immediate use

EGG PRICES
SHOULD TURN UP
IN 1962-63

An expected decline in the total number of laying hens means egg producers can look for better prices in the 1962-63 laying year.

Extension economist, W. H. Dankers and poultry specialist R. W. Berg at the University of Minnesota say egg prices may be close to the 1960-61 levels.

They expect the laying flock late this year and in early 1963 to be 5 to 6 percent below 1961-62. They base that prediction on the size of the hatch for laying flock replacement in the United States which for the first 7 months of 1962 was 6.5 percent under a year ago.

Per capita consumption of eggs, on the other hand, isn't expected to differ much next year--even though the current level of about 326 per person annually is down from the 387 peak level of 1945-49.

Dankers and Berg add, however, that the size of the total laying flock is not completely set by the size of the hatch. Egg enterprises are quite flexible. When egg prices are up in fall, producers tend to cull less. When prices are down, they cull more.

In Minnesota, size of the hatch for laying flock replacement in the first 7 months of 1962 was down nearly 14 percent--twice as much decline as for the U.S. Rate of lay, however, is slightly above the national average.

With higher marketing costs, producers now get a smaller share of what the housewife pays for eggs. And the reduction has hit Minnesota harder than the nation as a whole. As a result, between 50 and 60 percent of the egg producers in the northern counties and 20 to 30 percent in the southern counties went out of business since 1950.

However, because of bigger flocks, for those who have stayed in the egg business, the egg production did not drop anywhere near as much as did number of flocks. Minnesota produced more than 4 billion eggs in 1955--7.2 percent of the nation's supply. In 1961, state production was 3.5 billion, or 5.6 percent of the U. S. total.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 2, 1962

To all counties
For immediate use

HIGH ENERGY RATION
FOR BEEF CATTLE
REQUIRES CAUTION

What about the high energy rations for beef cattle? Do they pay off or not?

Here's what O. E. Kolari, University of Minnesota livestock researcher, has to say about them.

Cattlemen in Corn Belt states for years have fed high amounts of ground shelled corn, keeping hay to a minimum.

Often, it works out well. But it's also common for cattle on high-energy, or "hot" rations to go off feed, become stiff, founder, and show other ailments.

High-energy rations usually contain ground shelled corn, a protein supplement, minerals, feed additives and vitamins. They may have as little as 2.3 percent fiber, compared to 10 percent or more fiber in standard rations of ear corn, hay and protein supplement.

Kolari suggests these precautions with high-energy rations.

First, the change-over from standard rations should be gradual.

Second, feed should be available all the time, to keep cattle from eating too much at once.

Third, rations should have plenty of minerals and vitamins.

Average daily gains for cattle fed high-energy rations are not necessarily greater than for cattle eating some roughage. Feed efficiency may be higher, though.

add 1 high energy rations for beef cattle.

While research results vary, you can usually figure that weight gains will be about the same for cattle on all-barley as on all-corn rations. That assumes proper supplementation in each case.

Kolari says research so far shows little benefit from buffers or alkalinizing agents for controlling rumen acidity in feeding. These products require more research, however.

Cattle fed high-energy rations have not produced superior carcasses, compared to cattle fed some roughage.

One of the biggest advantages of high-energy rations is that they fit in well with automatic feed handling systems.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 2, 1962

To all counties

Immediate use

F A R M F I L L E R S

Off-flavors in milk can be kept to a minimum by watching the feeding schedule. Vernal Packard, extension specialist in dairy products at the University of Minnesota, says corn silage, for example, should be fed right after milking and never less than five hours before putting on the milkers. Most effect from feed flavors is from what cows eat an hour or two before being milked.

* * * *

Boom sprinklers are gaining popularity in Minnesota. Corn and potato growers were first to use these rigs for irrigation and now they are catching on for other crops. One big advantage of boom sprinklers: they take less labor. The whole rig is on a trailer, which can be pulled from one location to the next with a tractor or truck.

* * * *

Feed costs high for the laying flock? If so, check on these things--high feed price, low egg production, wasted feed and feed requirements. One study showed that it took 6.1 pounds feed for a dozen eggs. But if you can improve efficiency to a point where it takes only 5 pounds feed per dozen, you reduce feed costs by 2.5 cents per dozen eggs produced. That pointer is from Hal Routhe, extension economist, and Bob Berg, extension poultry specialist at the University.

* * * *

Moisture in stored grain can lead to trouble. Fungi move in, discoloring and decaying the embryos and causing mustiness and heating. University of Minnesota plant pathologist C. M. Christensen says that in wheat stored with moisture content between 14 and 15 percent, a difference of only .2 percent (two tenths of 1 percent) in moisture content makes a great difference in fungi invasion. A problem: moisture content is difficult to determine accurately.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 2, 1962

To all counties
For immediate use

DAIRY OUTLOOK
REVIEWED BY
FARM ECONOMISTS

With milk production likely to stay ahead of consumption, milk prices for the rest of 1962 and early 1963 will probably average 20 cents or more below 1961 levels.

That prediction assumes no immediate change in dairy legislation, according to K. H. Thomas and M. K. Christiansen, extension agricultural economists at the University of Minnesota.

Key factor in the milk price outlook is the high level of production and drop in per capita consumption for most dairy products. Estimates are for a new high of about 126.5 billion pounds of milk produced in 1962. That's a gain of .8 percent (eight tenths of one percent) over 1961.

Cow numbers have declined but production per cow continues to increase--although not at as high a rate as in the previous year.

While milk production is going up, percent of milk marketed (not used on farms) continues to rise even faster. Result is an even larger supply to be consumed. Yet, total commercial consumption has been leveling off and per capita consumption of total milk has gone down--from 678 pounds in 1955 to 628 in 1960 and 607 in 1961.

Surpluses will continue to build up and prices will be influenced strongly by support levels, the economists say.

Following the 29-cent drop in support prices in April 1962 (from \$3.40 to \$3.11), prices paid farmers for manufacturing milk dropped between 15 and 25 cents

add 1 dairy outlook

per hundred pounds below the same period of 1961. June, 1962, average price paid by Minnesota creameries for milk with 3.47 milkfat was \$3.03 per hundred. That's compared to \$3.15 for milk testing 3.42 in June, 1961.

Here is one bright spot in the dairy picture: Returns from raising dairy steers have been good for several years and should hold up well for at least the next 24 months. During the 1961-62 feeding year, a farmer could expect a labor return of about \$50 to \$60 per head for a 1,050-pound dairy steer.

Standard steers usually bring \$4 to \$5 below choice grade--and therefore should range between \$17 and \$19 per hundred during the coming year.

The economists advise farmers to take a careful look at expected prices, feed supplies and facilities before deciding how to handle a dairy steer business. Much of the profit in this enterprise has been bid into the raising of calves up to 700 pounds. The economists estimate a labor return of \$36 per head in raising a calf to that weight, and \$8 per head in feeding out a yearling steer to 1,050 pounds.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 2, 1962

To all counties
ATT: HOME AGENTS
Immediate release

APPLES, CHEESE,
CHICKEN ABUNDANT
IN OCTOBER

Crisp fall weather will bring abundant harvests of fruits and other foods to market in October

For the benefit of the homemaker who likes to plan her menus in advance, the U.S. Department of Agriculture reports that fresh apples, cheese and broiler-fryers will be the featured items during October. Also included on the Department's list of plentiful foods are fresh cranberries, pears, grapes, frozen concentrated orange juice, turkeys, potatoes and rice.

Since this year's apple crop is expected to be 11 percent above average, you'll find a big variety of apples available this month for eating out of hand, for baking, for pies and other desserts and for caramel apples. October 11 through 20 has been set aside as National Apple Week, a special time to highlight apples in your menus.

Cheese comes in for special attention in October, which is Cheese Festival month. Stocks of cheese are large, and supplies of the various types of cheese will be ample.

October will bring almost as many broiler-fryer chickens to market as was the case a year ago. With chicken and turkeys exceptionally good buys, homemakers can serve poultry in a big variety of taste-tempting ways at no strain on the budget.

Cranberries are a natural accompaniment for poultry -- and the fresh red berries will be pouring in from processors this month. Experts predict the largest cranberry crop on record.

Fresh fruit counters will be displaying fresh pears in plenty for the fruit bowl and for salads. Bartletts will still be available throughout October. The pear crop of the Pacific Coast states is forecast at 7 percent above last year.

You can count on big supplies of grapes for the fruit bowl, too--especially the flame Tokay and Emperor varieties from California.

Perfect for October menus -- and to team up with poultry -- are potatoes and rice, both in large supply.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 2, 1962

To all counties
4-H NEWS
Immediate release

INTERESTS OF OLDER
YOUTH REFLECTED
IN 4-H PROJECTS

Special emphasis is now being placed on developing 4-H projects for the older club member, says County Agent _____.

Two new programs especially designed for older club members are available in some counties--Career Exploration and Town and Country Business. Career Exploration gives 4-H'ers an opportunity to evaluate their interests and to investigate many areas of continuing education or possible employment.

Town and Country Business provides an understanding of business as it operates in the marketing field. Tours and discussion meetings will be sponsored for members by firms associated with agriculture.

A number of other projects are tailored to the interests of older members. For example, automotive care and safety is one phase of the mechanical projects. Its purpose is to help the 4-H member to achieve and enjoy the fullest opportunities as a safe and efficient automobile driver by learning about safe care and operation of cars and costs involved.

Making your camera work for you is one purpose of the photography project. Members learn the way film responds to light and good techniques of picture taking.

Training for future positions of responsibility is an objective of the junior leadership project. In this project members develop abilities and skills for working with others.

In addition to the projects especially designed for older 4-H members, there are more than 50 other projects to interest all 4-H'ers. Whatever your interests--livestock, mechanics, outdoors, home economics or family living-- you will have an opportunity to develop them by joining the more than 53,000 Minnesota 4-H Club members who are learning by doing.

Contact any local 4-H Club leader or your county extension office if you are between the ages of 10 and 21 and want to explore new interests through 4-H.

-kmr-

Note to County Agents: Select those projects your county will be offering.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 8, 1962

SPECIAL to all counties

Immediate release

LOCAL YOUTHS
WIN HONORS AT
LIVESTOCK SHOW

4-H club members from _____ County took honors at the 44th annual Minnesota Junior Livestock Show Oct. 1-4 at the South St. Paul stockyards.

These youths won _____ purple, _____ blue, _____ red and _____ white ribbons. They competed with about 700 other young showmen.

(List names and awards of any local championship or showmanship winners or other awards.)

Winner of the 1962 4-H Livestock Achievement award was Tom Burke, 19, Blooming Prairie, who owns in partnership with his father and brother a herd of 70 registered Angus cattle. The Achievement award is based on 4-H leadership ability, 4-H project records and over-all knowledge of livestock management. The winner receives a \$100 U.S. savings bond.

Since he began 4-H activities nine years ago, Tom has held nearly every office in his local 4-H club. He has been beef superintendent at the Dodge County fair, has worked with several county 4-H committees and has helped other youths with their 4-H projects.

Tom has become a veteran livestock showman and has many ribbons from county and state fairs and other events. He tied for first place in individual livestock judging at the state fair a month ago.

An example of Tom's beef management skills comes from his records for an Angus steer now in his project. By mid-July of last summer, the animal had gained 321 pounds in 180 days, for an average of 1.8 pounds daily. Value of the animal was \$42.55 above feed costs.

Runner-up for the Achievement award was Charles Woehler, 19, Arlington. He received a \$50 U.S. savings bond. The third place award of a \$25 bond was won by Jon Paulson, 18, Hills.

add 1 - local youths win honors at livestock show

Grand champion steer of the show was a 1,031-pound Angus shown by Richard Walsler, 13, Minnesota Lake. The animal was sold at the auction to Diamond Jim's Restaurant, St. Paul, for \$2.50 per pound. Reserve champion steer was an 828-pound Angus exhibited by Bob Kuehl, 15, Fulda, and sold to Citizens State Bank of Fulda for 75 cents per pound.

Bill Carson, 21, Pipestone, showed the grand champion hog, a 251-pound Poland China bought by Armour & Co., South St. Paul, for \$3.10 per pound. Bill became, with this victory, the first showman in the history of the Junior Livestock show to have won a grand championship in all four livestock divisions. He took the top honor in beef in 1955, lambs in 1956, and lamb trio in 1957.

Marna Holmberg, 12, Pennock, showed the reserve champion barrow. It was a 246-pound Yorkshire bought by Farwell, Ozmun & Kirk, South St. Paul, for .80 per pound.

In sheep, the grand champion was a Southdown exhibited by 16-year-old Judy Drescher, Freeborn. The lamb weighed 92 pounds and was bought for \$5.75 per pound by Newport-St. Paul Cold Storage, Newport. The reserve champion lamb was a Hampshire weighing 120 pounds, exhibited by Duane Olson, 15, Fosston. Duane was paid \$2.50 per pound by Central Warehouse Co., St. Paul.

Steven Goelz, 12, Morton, was exhibitor of the grand champion trio of lambs. The three Southdowns went to B. F. Nelson Manufacturing Company, Minneapolis, for \$1.90 per pound. Reserve lamb trio, also Southdowns, was shown by Dick Nystuen, Kenyon, and was sold to Security State Bank of Kenyon and Kenyon Cooperative Oil Association for \$1.75 per pound.

Champion showmen were Cheryl Kramer, 16, Magnolia, beef; Bob Lambert, 16, St. Peter, sheep and De Wayne Larson, 20, Cyrus, swine.

The herdsmanhip honors at the show went to Houston County, whose exhibitors did the best job of keeping their animals and stalls. The Tellier Trophy for the best Shorthorn exhibit was taken by Pipestone County.

In the auction, 70 cattle brought \$32,664.83, 50 sheep and two trios brought \$7,351.75 and 30 hogs sold for \$4,848.75. Grand total was \$44,865.33.

Following are the _____ County animals sold at auction, with their prices and buyers:

(Pick out your county individuals from attached sheets.)

#

HOGS

<u>Owner</u>	<u>Town</u>	<u>Buyer</u>	<u>Per lb.</u>	<u>Net Price</u>
Bill Carson	Pipestone	Armour & Company, South St. Paul	\$3.10	\$ 778.10
Marna Holmberg	Pennock	Farwell Ozmun Kirk & Company, St. Paul	.80	196.80
Renee Rayman	Glenville	Standard Building Material Company, St. Paul	.65	165.75
Jerome Pichner	Owatonna	Schmidt Brewing Company, St. Paul	.60	145.80
Kathryn Scheid	Delaven	Ford Motor Company, St. Paul	.60	106.80
Audrey Jacobson	Ellendale	General Mills Inc., Mpls.	.55	135.85
Leon A. Schuttemeier	Spring Grove	Our Own Hardware Company, Mpls.	.55	118.80
Rodney Thompson	Austin	Plastics Inc., St. Paul	.55	147.40
James Zimmerman Jr.	Cannon Falls	International Harvester Company, Mpls.	.65	138.45
Ann Belina	Owatonna	Buerkle Buick Company, St. Paul	.55	128.15
Thomas Grams	Mankato	Armour & Company, South St. Paul	.65	147.55
Allen Anderson	West Concord	Minnesota Linseed Oil Company, Mpls.	.60	136.20
Roger Vermedahl	Emmons	Booth Cold Storage Company, St. Paul	.60	126.60
Tom Seykora	Owatonna	American Hoist & Derrick Company, St. Paul	.60	132.00
David Alcorn	Walnut Grove	St. Paul Ammonia Products, Inc., Pine Bend	.60	139.80
John Wright	Hastings	St. Paul Fire & Marine Insurance Company, St. Paul	.60	162.60
Paul Nilson	Park Rapids	Griggs Cooper & Company, Inc., St. Paul	.60	124.80
Linn Smith	Eagle Bend	Kehne Electric Company Inc., St. Paul	.55	137.50
Lyle Vermedahl	Emmons	Midway Chevrolet Company, St. Paul	.50	105.00
Dennis Franz	Bingham Lake	Farmers Union Grain Terminal Association, St. Paul	.50	92.50
Donna Bach	Henderson	K.S.T.P Radio & Television, St. Paul & Mpls.	.65	176.80
Bruce Thompson	Ellendale	St. Paul Terminal Warehouse Company, St. Paul	.60	150.00
Barbara Thurnau	Owatonna	Ford Motor Company, St. Paul	.60	138.00
Bill Graham	Waverly	Citizens State Bank, Waverly	.75	161.25
Mike Holmberg	Avoca	Brede Signs, Inc., Mpls.	.60	145.20
David May	Farmington	Drovers State Bank, South St. Paul	.65	164.45
Sheryl Rademacher	Round Lake	Land O'Lakes Creameries, Inc., Mpls.	.55	125.40
Bonnie Lynn Hovde	Hanska	Minnesota Farm Bureau Service Company, St. Paul	.60	150.00
Dean Schuttemeier	Spring Grove	N.W. State Bank, St. Paul	.60	132.00
Bill B. Gast	Beltrami	Donaldson's-Golden Rule, St. Paul	.60	139.20

SHEEP

<u>Owner</u>	<u>Town</u>	<u>Buyer</u>	<u>Per. lb.</u>	<u>Net Price</u>
Judy Drescher	Glenville	Newport-St. Paul Cold Storage, Newport	\$5.75	\$ 529.00
Duane Olson	Fosston	Central Warehouse Company, St. Paul	2.50	300.00
Bob Lambert	St. Peter	St. Paul Fire & Marine Insurance Company, St. Paul	1.50	120.00
David Cowell	Crookston	Viking Motor Motel, Mpls.	1.75	180.25
Linda M. Kopp	Glyndon	Farmers Union Central Exchange, Inc., South St. Paul	1.50	165.00
John Goelz	Morton	Brown & Bigelow, St. Paul	1.45	134.85
Kathleen Ringkob	Jackson	Marquette National Bank, Mpls.	1.35	152.55
Barbara Anderson	Benson	B. F. Nelson Manufacturing Company, Mpls.	1.25	98.75
Marion Olson	Fosston	Cargill Incorporated, Mpls.	1.00	85.00
John Spring	Pelican Rapids	Northwood Country Club, North St. Paul	1.40	134.40
Jack Chambers	Owatonna	Hotel St. Paul, St. Paul	1.10	108.90
Verliss Meyer	New Richland	B. F. Nelson Manufacturing Company, Mpls.	1.30	105.30
Marita Ringkob	Jackson	Super Vita Feed, Jackson	1.20	133.20
Charles Bobendrier	Elk River	Northern Pacific Railway Company, St. Paul	1.35	108.00
Margel Genrich	Lester Prairie	Lester, Inc., Lester Prairie	1.30	128.70
Betty Winter	Currie	Buckbee Mears Company, St. Paul	1.50	138.00
Mark Eidenschink	Detroit Lakes	Northern Pacific Railway Company, St. Paul	1.40	148.40
James Crawford	Mountain Lake	St. Paul Fire & Marine Insurance Company, St. Paul	1.40	117.60
Russell Stewig	Redwood Falls	John Deere Company, Mpls.	1.40	105.00
Laurel Hoff	Perley	Radisson Hotel, Mpls.	1.10	111.10
David Nystuen	Kenyon	Great Northern Oil Company, Pine Bend	1.40	112.00
Larry Sale	Lake Bronson	N W Bell Telephone Company, St. Paul	1.10	115.50
Shirley Anderson	Comstock	Great Northern Railway Company, St. Paul	1.20	97.20
LeRoy Swenson	St. Peter	State Bank, Long Lake	1.40	151.20
Gary Rusch	Darwin	Minnesota Mining & Manufacturing Company, St. Paul	1.50	118.50
Diane Huiras	Fairfax	Donaldson's-Golden Rule, St. Paul	1.25	106.25
Michael Hamilton	Cedar	Great Northern Railway Company, St. Paul	1.25	100.00
Dennis Hemme	Luverne	B. F. Nelson Manufacturing Company, Mpls.	1.10	137.50
Melaine Dawn Midtbruget	Hanska	Tom Garrett, St. Paul	1.10	105.60
Dale Billberg	Wannaska	Donaldson's-Golden Rule, St. Paul	1.10	135.30
Janice Hanson	Austin	State Bank of Brownsdale, Brownsdale	1.55	133.30

SHEEP (continued)

<u>Owner</u>	<u>Town</u>	<u>Buyer</u>	<u>Per lb.</u>	<u>Net Price</u>
Lola Kaye Anderson	Benson	Minnesota Farmers Union, St. Paul	\$1.20	\$ 93.60
Patty Sullivan	New Prague	Pioneer-Press Dispatch, St. Paul	1.25	122.50
Curtis Forte	Park Rapids	Great Northern Railway Com- pany, St. Paul	1.20	103.20
Jean Crawford	Mountain Lake	Central Livestock Association, Inc., South St. Paul	1.15	89.70
Thomas Billberg	Roseau	Newport-St. Paul Cold Storage, Newport	1.15	120.75
Mary Crawford	Mountain Lake	Crane & Ordway Company, St. Paul	1.10	92.40
John Larson	Argyle	Argyle State Bank, Argyle	1.25	128.75
Gary Lagerstedt	Gibbon	King Packing, Inc., St. Paul	1.10	103.40
Lyle Pearson	Mankato	Viking Motel of Mankato, Mankato	1.50	114.00
Michael Caskey	Bagley	Cedar Sanitary Ice Company, St. Paul	1.10	129.80
Don Wichmann	Balaton	Spencer Packing Company, Spencer, Iowa	1.10	115.50
Richard C. Voge	Deer Creek	Northern Pacific Railway Company, St. Paul	1.15	121.90
Linda Elmstrand	North Branch	St. Paul Dispatch, St. Paul	1.10	79.20
Verlayne C. Meyer	New Richland	B. F. Nelson Manufacturing Company, Mpls.	1.10	106.70
Bruce Paulson	Owatonna	Red Owl Stores, Hopkins	1.10	101.20
Connie Kramer	Worthington	Ed Janssen Liquor Store, St. Paul	1.10	112.20
Kathryn Kienig	Belle Plaine	Hamm's Brewery, St. Paul	1.10	96.80
Dean S. Strain	Byron	Midway-Ford Company, St. Paul	1.00	80.00
Robert Parnow	Goodridge	Hamm's Brewery, St. Paul	1.10	99.00

TRIO OF LAMBS

Steven Goelz	Morton	B. F. Nelson Manufacturing Company, Mpls.	1.90	497.80
Dick Nystuen	Kenyon	Security State Bank - Kenyon Coop - Kenyon Oil Associa- tion, Kenyon	1.75	427.00

CATTLE

Richard Walser	Minnesota Lake	Diamond Jim's, Lilydale, St. Paul	2.50	2,577.50
Bob Kuehl	Fulda	Citizens State Bank of Fulda, Fulda	.75	621.00
Darryle Peterson	Clearbrook	Farmers Union Marketing Association, South St. Paul	.50	525.50

CATTLE (continued)

<u>Owner</u>	<u>Town</u>	<u>Buyer</u>	<u>Per lb.</u>	<u>Net Price</u>
Janet Carson	Pipestone	Doughboy, Inc., New Rich- mond	\$.50	\$ 443.50
Richard Schlichte	Wilmont	St. Paul Fire & Marine Insur- ance Company, St. Paul	.42	394.80
Earl Miller	Moorhead	H. B. Fuller Company, St. Paul	.41	391.55
John Grass, Jr.	LeRoy	Doughboy, Inc., New Rich- mond	.44	432.08
Marlin Sleiter	Pipestone	Doughboy, Inc., New Rich- mond	.42	389.34
Arthur L. Hansen, Jr.	Jackson	First National Bank, Mpls.	.44	444.40
Carol Meyer	Ellsworth	Northwestern National Bank of St. Paul, St. Paul	.40	412.80
Ed Gilman	Garden City	B. F. Nelson Manufacturing Company, Mpls.	.41	393.19
Lucia Haberman	Brewster	First National Bank, Brewster	.40	448.80
Kathryn Walser	Minnesota Lake	Thomas Burke, Blooming Prairie	.40	424.00
Bill Kriesel	Owatonna	First National Bank of St. Paul, St. Paul	.43	472.14
Sherry Rogert	Albert Lea	B. F. Nelson Manufacturing Company, Mpls.	.42	442.26
Gary Hansen	Jackson	Montgomery Ward, St. Paul	.45	464.85
Cheryl Kramer	Magnolia	Minnesota Twins, St. Paul & Mpls.	.42	434.70
Bradley Hinricksen	Blue Earth	Minneapolis-Honeywell Regula- tor Company, Mpls.	.42	492.24
Tony Burke	Blooming Prairie	Anderson Corporation, Still- water	.42	424.20
Jerome Dierks	Fulda	Citizens State Bank, Fulda	.42	413.70
Brian Harder	Mountain Lake	Doughboy, Inc., New Rich- mond	.42	401.10
Arlo Feder	Madelia	Hilex Company, St. Paul	.41	404.67
Billy Johnson	Jackson	Farmers Elevator, Jackson	.43	431.72
Tom Burke	Blooming Prairie	St. Paul Pioneer Press, St. Paul	.42	426.72
Gary Steele	Albert Lea	Jefferson Transportation Com- pany, St. Paul	.40	431.60
Kathleen Fuhrmann	Marshall	Great Northern Railway Com- pany, St. Paul	.43	411.51
Ronald Jeske	Springfield	D. W. Onan & Sons - Division of Studebaker-Packard Cor- poration, Mpls.	.41	430.50
Dale Saxon	Worthington	John Deere Company, Mpls.	.40	443.60
Karen Wold	Spring Grove	Northwest Airlines, Inc., St. Paul	.44	475.20
Roxann Jamieson	Worthington	Northwestern National Bank of Minneapolis, Mpls.	.43	423.55
Stanley Spangler	Morgan	Minnesota Mining & Manufactur- ing Company, St. Paul	.43	451.93
Larry Peterson	Amboy	Southview Chevrolet Company, South St. Paul	.40	423.20
Eddie Kramer	Worthington	St. Paul Book & Stationery Com- pany, St. Paul	.40	438.00

CATTLE (continued)

<u>Owner</u>	<u>Town</u>	<u>Buyer</u>	<u>Per lb.</u>	<u>Net Price</u>
Kathy Barnes	Cokato	Minnesota Mining & Manufacturing Company, St. Paul	.42	\$ 413.70
Ronald Ochsendorf	Canby	Northern States Power Company, St. Paul	.42	413.70
Val Watje	Round Lake	Johnson Cashway Lumber Company, South St. Paul	.41	444.85
Mary Ward	Vernon Center	Northwestern National Bank of Minneapolis, Mpls.	.42	451.08
Mark Girms	Round Lake	St. Paul Athletic Club, St. Paul	.39	405.21
Jerry Hatch	Truman	Minnesota Farm Bureau Service Company, St. Paul	.41	403.85
Robert Wood	Plainview	Cardozo-Weyand Furniture Store, St. Paul	.39	345.15
Neil Doyen	Good Thunder	Foremost Dairies, Inc., Mpls.	.39	382.20
Kent Molde	Milan	Ewald Brothers Sanitary Dairy, Mpls.	.40	354.40
Pat Kramer	Worthington	Peter Meat Products, Inc., St. Paul	.40	378.00
Diane Mortensen	Blooming Prairie	Twin City Meat Supply Inc., St. Paul	.40	434.00
Douglas Carroll	London	Armstrong Truck Line, Austin	.40	410.00
Paul Coudron	Milroy	Whirlpool Corporation, St. Paul	.40	461.60
Kent Johnson	Jackson	Super Vita Feeds, Jackson	.42	454.02
Joan Kuehl	Fulda	Citizens State Bank, Fulda	.42	458.22
Janice Mann	Luverne	Ewald Brothers Sanitary Dairy, Mpls.	.40	373.60
Donna Anderson	Garvin	Lowry Hotel, St. Paul	.40	436.00
Donna Meyer	Ellsworth	Sears Roebuck & Company, Mpls.	.40	366.00
Loren Anderson	Benson	Farmers Union Grain Terminal Association, St. Paul	.45	441.00
Dale Allen	Eyota	Hamm's Brewery, St. Paul	.41	380.89
Martin Raagan	Rose Creek	West Publishing Company, St. Paul	.43	492.78
Duane Mortensen	Blooming Prairie	J. L. Shiely Company, St. Paul	.41	421.48
Susan Phillips	Montevideo	American National Bank, St. Paul	.42	454.02
Allen Nelson	Waseca	Chicago Great Western Railway Company, St. Paul	.43	461.39
Lanny Haglund	Butterfield	State Bank of Butterfield, Butterfield	.41	437.47
Greg Wollam	St. Peter	Waldorf Paper Products Company, St. Paul	.41	417.79
Gary Allen	Eyota	Clapp-Thomssen Company Realtors, St. Paul	.41	390.32
Dennis Hartman	Okabena	Paper Calmenson & Company, St. Paul	.41	427.63
Richard Kramer	Worthington	Hilex Company, St. Paul	.43	454.08
Craig Sandager	Northfield	Louis Hill, Jr., St. Paul	.42	477.96
Milo Goltz	Elmore	National Food Stores, Inc., Mpls.	.41	452.23

CATTLE (continued)

<u>Owner</u>	<u>Town</u>	<u>Buyer</u>	<u>Per lb.</u>	<u>Net Price</u>
Kenneth Merk	Herman	Minnesota Federal Savings & Loan Association, St. Paul	\$.40	\$ 371.20
Nancy Merrill Rodney Morlock	Pipestone Jordan	Ellerbe & Company, St. Paul Gould-National Batteries, Inc., St. Paul	.41 .42	397.29 388.50
Tom Ward	Chatfield	Twin City Milk Producers Association, St. Paul	.41	425.58
David Elston	Windom	Packerland Packing Company, Green Bay, Wisconsin	.41	462.89
Janet Doppelhammer	Glenville	Minnesota Mutual Life Insurance Company, St. Paul	.45	432.90
Janice Klukow	Albert Lea	The Emporium Department Store, St. Paul	.40	456.00

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 9, 1962

To all counties

F A R M F I L L E R S

Mosaic virus in white clover can be spread by pea aphids, recent University of Minnesota research shows. Plant pathologists allowed insects to feed on mosaic-infected clover, then put the insects on plants which were previously free of the virus. Eighteen days later, many of the plants showed mosaic symptoms. This finding is helpful in understanding spread and control of mosaic--one of the most common diseases of Minnesota-grown clover.

* * * *

"Calendarized" corn planting may have some merit for some areas of Minnesota, according to University agronomist James Sentz. The plan involves planting early-maturing corn first, say in early May, and later-maturing varieties a few weeks later. Then, the reasoning goes, there is more spread in dates when corn is ready to harvest. Equipment and harvest time can be spread over more acres.

* * * *

How anti-weed chemicals work: Recent research at the University of Minnesota points to some clues on why dalapon kills yellow foxtail but not sugar beets. Apparently, the chemical causes a lasting protein breakdown in foxtail, while sugar beets have an inside mechanism for repairing the damage. Just what the mechanism is, however, remains to be determined. Goal of this research is a better understanding of "selective" herbicides and their use.

* * * *

How much vitamin A for beef cattle? University of Minnesota livestock scientists make these suggestions, based on research results: Fattening cattle receiving a limited amount of average quality hay and corn need at least 10,000 units of vitamin A per head daily. Cattle getting poor hay (if any) and corn or other grains should be supplemented with 20,000 units.

* * * *

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 9, 1962

To all counties

FEED SUPPLIES
TO BE SMALLER
IN COMING YEAR

While feed grain supplies decreased in 1962, prices for feed grain during the coming year are expected to stay close to support levels.

Domestic demand for feed grains will most likely continue strong, though a decline in exports is possible, according to extension economists James App and Harold Pederson at the University of Minnesota.

Total production of feed grains in 1962 is estimated at levels similar to 1961. Acreage went down somewhat, but yields increased by 5 percent. Total feed grain supplies for 1962-63 are expected to be down 6 percent from 1961-62 levels.

Here's a look at individual crops. Carryover of corn into 1963 is expected to decline from the record of last year. Total supplies of sorghum should remain at 1961-62 levels and supplies of oats and barley are expected to be smaller.

The economists say feeding rate during 1963 should continue at the record rate of .91 tons per animal unit. And with expected increases in number of livestock fed, total consumption of feed grains should increase to a record level. Recent years have seen an increase of 23 percent in grain fed, with a 4 percent increase in grain-consuming livestock.

Feed grain exports have climbed sharply, more than doubling export levels of 5 years ago. However, the economists look for a reduction from the record 1961-62 levels, because of favorable growing conditions in importing countries and the influence of the Common Market.

In the coming year, feed grain prices may average close to the 1961-62 levels. Corn and sorghum grain prices will average somewhat below the 1962 supports. Therefore, corn will continue to be a relatively cheap feed grain.

Oat and barley prices may not be as high in relation to corn as in 1961-62, but will instead be near or a little above support levels.

Livestock men can look for ample supplies of high protein feeds in 1963. Prices are expected to average as high as the 1961-62 season. These prices are running about 5 percent higher than in 1960-61, because of strong export and domestic demand.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 9, 1962

To all counties
Att: HOME AGENTS

WHY NOT DECORATE
WITH HOUSE PLANTS?

Why not show off your house plants to best advantage?

When you begin decorating with house plants, more than knowledge of plant care is called for. Apply some art principles, too, suggests Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota.

The colors found in walls and floor coverings are the backgrounds for your plants and will flatter or complement them, if you select the plants with care. Dark green leafy plants will be effective used against a light background. Against dark walls, use plants having lighter foliage.

Plain or solid colors make the best backgrounds for plants. Highly patterned walls and carpets are poor backgrounds for any plant materials.

The relation between size and shape of the plant and the space where it is used is highly important. Use a plant, or a group of plants, similar in shape and of sufficient size to fill the space adequately, but not crowd it. Use flat, low plants on low tables. For a feeling of unity in your table service, use a low, spreading centerpiece.

The care a plant requires is a good clue to where it should be placed. Nothing detracts more from a decorating scheme than plants which have become sickly because of being placed in a dark corner, a drafty area or a hot, sunny spot.

A container for a house plant should be in keeping with the surrounding furnishings. It should stay quietly in the background, doing its job without attracting undue attention.

For more information on decorating with house plants, get a copy of Home Economics Fact Sheet No. 10, available from your county extension office or from the Bulletin Room, Institute of Agriculture, St. Paul 1, Minn.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 9, 1962

To all counties

4-H NEWS

4-H FILLERS

Minnesota 4-H club enrollment has increased for the fifth consecutive year, according to a preliminary report for 1962 from the state 4-H Club Office at the University of Minnesota.

Enrollment now is 53,319--an average increase of more than a thousand a year since 1958 when there were 46,554 members.

* * * *

Minnesota has, 2,177 4-H clubs with an average of 24 members in each. These members remain active in their clubs longer than the average number in the United States--3.2 years compared to the national average of 2.7 years. Average age of Minnesota 4-H members--12.8 years--is also higher than the national average of 12.6 years.

* * * *

School teachers served as teachers in the early period of 4-H. Today these volunteers come from varied occupational groups and include many homemakers, business men and farmers, says Leonard Harkness, state 4-H Club leader at the University. More than 10,000 men and women donate their time to serve as adult leaders, working as organization leaders or as leaders in specific projects.

* * * *

The 4-H Clubs of America can claim the largest alumni of any co-educational youth organization in the world.

Today's former 4-H members number nearly 23 million men and women, according to the Federal Extension Service. They can be found in virtually every rural community and in cities as well.

* * * *

Leonard Harkness, state 4-H club leader, is completing his fourth year as a member of the National 4-H Club Foundation's board of trustees.

* * * *

Paul W. Gandrud, Benson, has been named Minnesota chairman of the nationwide fund drive among banks during October to support the "Service to Youth" educational program of the National 4-H Club Foundation. Gandrud is vice president of the Swift County Bank of Benson. Minnesota led the nation in the 1961 campaign, both in number of banks participating--294--and for the largest total contribution.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 9, 1962

Special to agents in
Northwest District and
Freeborn county

County Agent: The following information is based on a USDA release which may have reached some daily newspapers in your area the last week of September.

REGULATIONS ON
POTATO IMPORT
ARE CHANGED

Grade, size, quality and maturity requirements for Irish potatoes imported into the U.S changed as of Oct. 1, according to the U.S. Department of Agriculture.

Under the Agricultural Marketing Agreement Act imported potatoes must meet the same requirements as competitive domestic shipments regulated under Federal marketing orders.

The USDA has determined that each season from Oct. 1 to June 30 imported potatoes are in most direct competition with the following areas: for red skin varieties the Red River Valley of North Dakota and Minnesota; for other round varieties, Maine; for long varieties, Idaho and Malheur County, Oregon.

Regulations effective Oct. 1 for imported potatoes state that red skin varieties must be U.S. No. 2 or better grade, 2 inches minimum diameter, or Size B if U.S. No. 1 or better grade. Through Oct. 31 the potatoes must be not more than "moderately skinned."

All other round varieties must be U.S. No. 1 or better grade, 2 inches minimum diameter and 4 inches maximum diameter, and at least 90 percent "fairly clean."

Changes in grade and size import requirements do not change Plant Quarantine regulations which continue in effect. The current requirements based on domestic regulations for summer crop potatoes continue in effect until Oct. 1. The grade, size, quality and maturity requirements specified are subject to change upon amendment of the applicable domestic regulations.

Summaries of the fall and winter regulations are being mailed to the trade. Other interested persons may obtain copies from the Director, Fruit and Vegetable Division, Agricultural Marketing Service, USDA, Washington 25, D. C.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 9, 1962

To all counties
For immediate use
A Farm and Home Research Report

RESEARCH SHOWS
MASTITIS LINK
WITH MILKER USE

Here's one reason why milkers should come off dairy cows as soon as milk stops flowing.

When no milk is coming through from the udder, a vacuum occurs inside the teat. And that vacuum can cause an inflammation which in turn leads to mastitis.

This finding is from a novel research project at the University of Minnesota. Dairy scientists E. V. Caruolo and G. D. Marx used seven udders (complete mammary glands) severed from dairy cows at slaughtering houses.

All udders were still secreting milk, making research possible. Caruolo and Marx suspended the udders in a frame and attached milker units to the teats--just as would be done in normal milking.

What the researchers were looking for was development of a vacuum inside the mammary gland. Such vacuum might occur either in the teat cistern (open space) or in the gland cistern of the quarter above the teat.

As long as milk flowed from udder to milker, there was no vacuum within the teat or gland cistern. But as soon as milk flow stopped, gauges attached to the udder showed a vacuum in the teat cistern. No vacuum occurred in the gland cistern, however.

How does such vacuum lead to mastitis? The researchers say the inflammation is probably occurring at the junction of the teat cistern and the main gland cistern. This is called the cricoid area.

Caruolo and Marx also compared different pulsation rates. They found that if the milker stays on after milk flow stops and rate is above 24 pulsations per minute, the vacuum in the teat cistern remains during the release phase of the cycle. Magnitude of this "residual" vacuum was greater with higher pulsation rates.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 9, 1962

To all counties
For immediate use
A Farm and Home Research Report

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 9, 1962

To all counties

A Farm and Home
Research Report

HAY PELLETS
STUDIED FOR
BEEF CALVES

Results you get from feeding hay pellets to beef calves don't seem to be affected by how finely the hay was ground when the pellets were made.

A group of University of Minnesota livestock researchers compared three degrees of fineness of grind of hay made into pellets and fed to calves as part of the ration. Hay was ground through either a one-eighth, one-fourth, or one-half inch screen.

Pellets of each degree of fineness were fed to a different group of calves. In addition, all calves received cracked shelled corn and soybean meal. Feeding period was 185 days--from Dec. 11, 1961, to June 14, 1962. Some calves were heifers and others were steers.

Results showed little difference. Daily gains averaged between 2.45 and 2.57 pounds per day regardless of degree of fineness of pellets. Such differences are not considered important.

There was also little difference in feed intake per day or feed eaten for each 100 pounds gain. Feed costs per hundred were \$11.94 for the finest grind, \$11.82 for the medium screen and \$12.31 for the most coarse.

The studies were done at the West Central School and Experiment Station by H. E. Hanke and R. E. Smith, station staff member and superintendent respectively, and St. Paul campus researchers O. E. Kolar, A. L. Harvey, W. J. Aunan and L. E. Hanson.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 16, 1962

To all counties

For immediate use

F A R M F I L L E R S

Forage sorghum silage will produce about as much "beef per acre" in wintering calves as will corn silage. In a University of Minnesota study, beef calves over a 173-day feeding period averaged about 2,500 pounds of beef for each crop acre on which silage was produced. That was true regardless of the silage used--forage sorghum or corn. Gains were economical in each case.

* * * *

Adding preservatives to corn silage is a practice that needs more research before it can be recommended. University of Minnesota livestock men fed beef calves silage treated with either sodium metabisulfite, limestone, or urea. Feed costs per hundred pounds of gain were over \$12 for each treatment. Calves fed untreated corn silage made the cheapest gains--\$11.78 per hundred pounds. The experiment is being repeated this winter.

* * * *

Soybean production in Minnesota has multiplied 85 times since 1942, but the increase has not been accompanied by any devastating soybean disease. However, soybeans do suffer many chronic ailments that hurt yield and quality, University of Minnesota plant pathologists say. So far, Minnesota has escaped two of the worst problems--soybean cyst nematodes and phytophthora root rot. More common here are bacterial diseases, such as blight and root rots caused by common soil fungi. The answer? More research and development of resistant varieties according to the plant pathologists.

* * * *

Christmas trees grown in Minnesota are reaching market size faster than demand for them is increasing in the Twin Cities. A University of Minnesota survey of 143 retailers last winter showed that amount of trees purchased but unsold was 16 percent in 1961, compared to 11 percent in 1960. Implications are that either new market areas must be found for some growers, or more trees will have to be left growing for other uses.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 16, 1962

To all counties
For immediate use

SPRAY NOW FOR
BOXELDER BUGS

Boxelder bugs? They're really quite harmless, but some spraying now may help where they've become a nuisance.

Entomologist L. K. Cutkomp at the University of Minnesota suggests a thorough spraying of infested boxelder trees and the house foundation. For best results, use a power sprayer with over 100 pounds of pressure. Next best choice is a knapsack type with 35 to 50 pounds pressure.

Fall spraying is best because the bugs now tend to cluster on trees or the sunny side of the house. Next spring, they will have scattered over a wider area.

Try to spray before many adult bugs are present. Otherwise, these adults may fly beyond reach. The object, of course, is to keep as many as possible from getting to the house foundation where they can push in and overwinter.

Insecticides which may be used include chlordane, sevin, dieldrin, and diazinon.

For Chlordane use an emulsion mixed with enough water to make a $2-2\frac{1}{2}$ percent concentration. Sevin may be used at two to three tablespoons of 50 percent wettable powder per gallon of water or equivalent amounts of other formulations.

Rate for dieldrin is one pint of an emulsion concentrate in 5 gallons of water, and diazinon is a one percent spray.

Boxelder bugs do not breed in the house, nor do they do any particular harm. They may spot curtains and fabrics when they come in large numbers. If you see them around flower pots, they're just looking for moisture. They do little or no feeding on house plants.

These insects have been fairly common since 1958, but previously were seen very little in this state except for 1935, 1936 and 1949. Cutkomp says they seem to be most abundant in warm seasons, and aren't likely to be serious every year.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 16, 1962

To all counties

ECONOMISTS ANALYZE
RECENT CHANGES
IN FOOD CONSUMPTION

Bigger paychecks haven't led to heavier grocery bags for Mr. Average U. S. citizen.

Instead, rising consumer incomes have been accompanied by shifts in preferences for food, without much change in total amount per person. University of Minnesota agricultural economists point to these major trends of the past 20-25 years:

- * Egg consumption rose rapidly until about 1950, then dropped sharply.
- * Potatoes and cereal products declined, partly because of replacement by dairy products, fruits and vegetables.
- * Meats, fish and poultry have shown consistent increases in consumption per capita.

Many people, particularly farmers, have wondered: Why haven't higher personal incomes led to higher consumption of farm products? The problem is analyzed by Frank J. Smith, Carroll V. Hess and Kenneth E. Egertson in the current issue of Minnesota Farm Business Notes, an agricultural extension publication.

They explain that consumption can change for one or both of two reasons.

First, consumption can change because total supply of the commodity changes. A large apple crop usually leads to lower apple prices. And with lower prices, people eat more apples.

Second, consumption can change as a response to a shift in demand. Such a shift depends mainly on four things--prices of competing products, tastes and preferences, income, and size of the population. Only when demand increases will consumers buy more of a commodity at the same price, or pay a higher price for the same quantity.

add 1 - consumption trends

These are basic economic principles. To analyze any demand situation, you have to take into account all the demand forces operating.

For an example of how these forces work, look at eggs and poultry meat. Consumption hit a peak of 385 eggs per person in 1947-49, but declined to about 321 by this year. What happened? Eggs have become less popular on urban breakfast tables. Meats, fish, cheese and noodle products have frequently taken their place.

Furthermore, shoppers aren't very sensitive to changes in egg prices. Eggs make up less than 4 percent of the value of foods bought by the average household, whereas meat, fish and poultry account for nearly a third. This fact fits into another economic principle: The smaller the proportion of a person's income which a commodity accounts for, the less that commodity will be affected by a change in the price of the product.

Here's what happens when this principle is applied to eggs and meat. Economists say that a 10 percent drop in retail price of eggs will result in a three percent increase in quantity of eggs purchased. And that assumes no change in prices of competing products or other demand factors. A five percent increase in per capita income gives only a one percent increase in per capita consumption of eggs.

With beef--which makes up a bigger share of food purchases--the story is different. Here, consumption increases by one percent with only a two percent increase in per capita income.

In other words, eggs don't fare as well as meats, poultry, and fish when personal income is going up.

Increased consumption of a particular product can, of course, be due to more than one thing. For example, per capita consumption of broiler and turkey meat more than doubled over the last two decades. One reason is that these meats are cheaper, as a result of more efficient production. Another is changes in consumers' preferences.

add 2 - consumption trends

With meat, rising income and changes in preferences together made for the upward shift in consumption. Beef reached 88 pounds per capita for 1962, while veal, lamb, mutton and pork dropped slightly. Total red meat consumption now stands at 161 pounds per person, or 34 pounds over pre-World War II levels.

Consumption of nonfat-milk-solids per person increased until 1959 but declined slightly since. Butter, cream and evaporated milk have seen sharp declines in per capita consumption. These trends reflect concern over weight, nutritional developments, more purchases of meat, and relatively low prices of competing vegetable oils.

Butter consumption, for example, dropped from 17 pounds per person in 1935-39 to 7.2 pounds last year, while margarine use increased from 2.9 to 9.2 in the same period.

While total pounds isn't the best measure of food consumption, the fact remains that annual food consumption per person dropped by about 100 pounds from the World War II level of 1600 pounds on a retail weight basis. This the economists attribute mostly to processed foods replacing bulky items such as potatoes, fresh fruits, and vegetables.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 16, 1962

To all counties
For immediate use

MOST OF EGGS
CAN BE KEPT
"NEST CLEAN"

More than eight of every ten eggs clean enough to go straight from the nest to the packing case--that's easily possible with good management.

Here are some steps to help a producer achieve such a goal. The tips are from Milo H. Swanson, poultry researcher, and Robert W. Berg, extension poultryman at the University of Minnesota.

Confine the flock to the laying house at all times. Muddy feet mean soiled eggs.

Keep the litter dry and in good condition. This calls for an insulated house with good ventilation. Place part or all of the feeders and waterers over dropping pits to reduce litter soiling. Hydrated lime, at a half to a full pound per four square feet, also helps keep litter dry.

Screen off the dropping pits and use a screened platform around water fountains. Have plenty of nests with deep, clean nesting material. Poultrymen recommend one individual nest for each four or five birds, or five to six feet of community nesting space for each 100 square feet of floor space.

Nests should be where litter is cleanest and driest. Birds then enter nests with a minimum of soil on their feet.

Finally, birds should be kept from roosting in nests and eggs must be gathered frequently.

Why is egg sanitation so important? The average egg has some 7,500 tiny pores or openings in the shell, Swanson and Berg explain. These pores make it possible for bacteria to work their way through into the egg interior.

Greatest hazard from improperly cleaned eggs is bacterial spoilage. It is not the faster rate of moisture loss or breakdown of thick white into thin.

The poultrymen point out that soiled eggs usually bring the equivalent of a "C" grade price even though these eggs may be grade "A" in interior quality. Therefore clean eggs from the producer mean more money on every case.

There are some specific tips on egg cleaning methods in a Minnesota Fact Sheet, "Cleaning Soiled Eggs." The county extension office has copies.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 16, 1962

To all counties
ATT: HOME AGENTS
Immediate release

HANDLE FOODS
CAREFULLY TO
RETAIN VITAMIN C

To get the most for your money in vitamin C-rich fruits and vegetables, handle and cook them properly.

Vitamin C is lost more quickly from most foods than other important nutrients are, according to Verna Mikesh, extension nutritionist at the University of Minnesota. This vitamin--one we need to replenish every day--is destroyed by high heat. Prolonged exposure to the air also results in some loss.

Vitamin C-rich fruits and vegetables include grapefruit, oranges, citrus juices, tomatoes, tomato juice, cantaloupe, strawberries, cabbage, green peppers, broccoli, spinach.

Here are some suggestions from the University nutritionist to preserve as much vitamin C as possible in fruits and vegetables:

- Handle vegetables carefully to avoid bruising. In cutting vegetables, use sharp knives.
- Cut carrots, celery, green peppers, cabbage and other raw vegetables just before serving.
- Keep citrus juices and greens covered and refrigerated.
- Avoid prolonged storage. Greens will lose about half their vitamin C after five days' storage. Potatoes will lose a third or more of their vitamin C by spring. Fresh cabbage will lose about a fourth of its vitamin C after two months of refrigerated storage.
- Avoid prolonged cooking and heating of any fruit or vegetable. Pour the liquid off commercially canned vegetables, boil quickly to reduce the volume and just heat the vegetables through.
- Have the water boiling before adding vegetables to start the cooking rapidly.
- Store frozen foods at 0° F. or lower.
- Store canned foods in a cool place.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 16, 1962

To all counties
4-H NEWS
Immediate Release

HOW DO YOU BUILD
YOUR FIGURE?

Dissatisfied with your figure?

Remember that your body grows in spurts, say extension nutritionists at the University of Minnesota.

Tall or short, big or little, you inherit your body build from your ancestors. Your body build is the framework on which you develop your figure.

You build your figure in your teens, but you build it gradually. Before you acquire a desirable poundage in the right places, with curves where they were meant to be, you may go through stages where there is too much of you in some spots and not enough in others. These stages, though, are usually temporary.

When girls are about 11, they start their fast growing years. When they are between 11 and 14 years they are taller than boys of the same age--usually for the only time in their lives. Girls are heavier than boys then, too. When girls are 12 they're likely to make their greatest gain in height. After girls are 16 they don't grow much taller. Once girls are 18 they don't add much more weight, unless they add too much fat.

As your body grows it needs energy. Energy is received from food in the form of calories. You want to supply enough calories to meet your operating and growth needs, but not more than you use.

When you eat food that gives more calories than your body uses for energy, the excess will be stored as extra fat--sometimes where you want it least and where it shows the most. When you supply fewer calories from food than your body uses for energy, the stored fat will be used to make up the difference.

bme

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Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 23, 1962

To all counties
For immediate use

F A R M F I L L E R S

Soybeans are safe for storage from now till next summer if moisture content is under 12 percent. Moisture as high as 14 percent is safe for short storage periods this fall and winter, according to Harley Otto, extension agronomist at the University of Minnesota. As with other grains, tight, waterproof bins are a must for proper soybean storage.

* * * *

Gasoline engines won't be so balky this winter if you use fresh fuel designed for the season. Refiners blend gasoline for a particular season and geographical area. Fuel designed for summer may not vaporize easily enough for good winter starting, according to D. W. Bates, extension farm engineer at the University.

* * * *

Molds and other fungi may be pathways for movement of fallout particles in the soil. Agricultural botanists at the University recently connected a watch glass and a gelatin-containing dish with tiny strands of a common soil fungus. Next, they put small amounts of radioactive minerals (including strontium) in the watch glass. Awhile later, they found, some of the radioactive particles had found their way into the gelatin dish--by way of the fungus strands.

* * * *

Windbreaks around home and farmstead needn't be too complicated, last winter's heavy snows showed. Foresters working at the University's Rosemount Agricultural Experiment Station found little need for having a few rows of shrubs as far as 60 feet out from the main windbreak. Instead, 10 or 15 feet between main plantings and shrubs was good enough. The wider snowtrap made no real difference in damage to trees or depth of snowdrifts inside the windbreak, near the buildings.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 23, 1962

To all counties
For immediate use

PUBLIC INTEREST
IN TREE PLANTING
ON THE UPSWING

Here's a measure of the increasing public interest in tree planting on private lands.

By six weeks after Sept. 1, when applications were first accepted, more than 15 million evergreen and hardwood seedlings were ordered from Minnesota State Forestry Nurseries. These orders account for more than a third of the trees which these nurseries will have available.

This means that if you plan to order any trees for 1963 planting, you better do it now. You can get more information and application blanks from your county agent, local state forester or the ASC office.

Why the increased interest in tree planting? William R. Miles, extension forester at the University of Minnesota, suggests four of the main reasons.

First, last year was an excellent one for survival of newly planted trees and there's no stimulus like success. Second, quality of seedlings produced by State Nurseries continues to improve, thus encouraging persons thinking of planting.

Third, word is getting around that trees are available and that there are tree planting programs. Fourth, tree planting is getting a boost from public cost-sharing programs.

Miles points out that opinions may differ as to the economics of investing, in tree planting, money which might bring higher returns from other ventures. There are, however, values from trees which can't be measured in dollars. Among these are forest areas for wildlife cover, wind and snow control, prevention of soil erosion, water retention, recreation, and landscape attractiveness.

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To all counties
For immediate use

SOYBEAN PRICES
TO STAY NEAR
SUPPORT LEVELS

Soybean prices during the next year will stay close to loan levels, largely because the Commodity Credit Corporation will increase its holdings.

Demand for soybean meal should be reasonably strong, but the same isn't true for oil, since stocks of edible fats and oils are hitting record levels.

These outlook pointers come from Harold Pederson and James App, extension economists at the University of Minnesota.

Supply of soybeans for the 1962-63 marketing year is larger than expected use. That will mean a substantial carryover of soybeans on Oct. 1, 1963--and larger than for the same period of this year.

The record supply of soybeans is due to production in other areas of the nation; in Minnesota, estimates are for a 7.5 million bushel reduction from 1961, because of expected lower average yields.

Soybean loan rates in Minnesota will vary by counties from \$2.11 to \$2.19 per bushel. These prices reflect a loan rate of five cents per bushel lower than a year ago.

Prices at harvest time, the economists say, may result in many producers taking advantage of the loan.

Soybean meal prices are expected to show a seasonal decline but will probably stay slightly above the Sept.-Dec. 1961 level of \$59 per ton. Prices which crushers pay for new crop beans this fall are expected to drop somewhat from current levels. But only part of this decline will be reflected in lower product prices, because processing margins will probably widen.

The export outlook is for a new record high for both edible fats and oils and soybeans. Total expected exports may reach 175 million bushels, compared with 150 to 155 million during the past year.

Large exports of meal, particularly to Europe, may drop back some. However, there is some expansion expected in exports of oil under Public Law 480, especially to Pakistan, Turkey and Egypt.

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To all counties

ADVISES AGAINST
EXTRA FAT
IN HOG RATION

Is it wise to add fats to swine rations?

Usually not--especially in rations not properly balanced with amino acids, according to R. J. Meade, livestock scientist at the University of Minnesota.

Where amino acids aren't in balance, whatever increase you get in rate or efficiency of gains might be offset by harmful effects on the carcass.

Adding fat to animal diets to increase energy content has been tried and tested to some extent for several years. Interest in the practice has increased. Fats are relatively low in cost per unit of energy, and development of anti-oxidants makes it possible to store rations containing added fat without refrigeration.

After reviewing the research on this question, Meade states these conclusions:

1. Adding lard, stabilized animal tallow or other fat to rations with adequate protein and essential amino acids doesn't consistently result in more rapid and efficient gains.
2. If the ration has too little protein or an improper balance of amino acids, adding fat may reduce gains and increase backfat thickness and trimmable fat.

3. When the ration has enough protein and the proper proportion of essential amino acids, adding 4 to 12 percent fat has these effects: Daily feed intake goes down, gain increases or doesn't change, less dry matter is required per pound of gain, and digestible energy needed for each unit of gain decreases or isn't affected. Differences in loin eye area and percentage ham or lean cuts of carcass or slaughter weight will be small. Backfat thickness may increase, but won't be accompanied by harmful changes in loin eye area or yield of trimmed lean cuts.

4. Total supply and proportion of essential amino acids are more important than percent of protein. Studies show that if rations for 38-45 pound pigs have the right amino acid balance, pigs do well on 10 to 13 percent protein. But when ratio of amino acids is ignored, gains go down and hogs are fatter at slaughter weight.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 23, 1962

To all counties
ATTN: HOME AGENTS
Immediate release

TURKEY TOPS
NOVEMBER LIST
OF PLENTIFULS

Turkey and cranberries -- November's most popular team -- are at the top of the U. S. Department of Agriculture's list of plentiful foods for the month.

Frozen orange juice continues to rank high on the list. Other abundant foods for November are broiler-fryers, Maine sardines, potatoes, apples, grapes, pears and vegetable shortening.

You won't have to limit the enjoyment of turkey to the Thanksgiving feast, because the turkey crop this fall will be large -- only 6 percent down from the record level of a year ago. Plenty of cranberries will be on the market for the sauce that is a natural accompaniment to turkey. A much larger cranberry crop than usual is forecast.

Frozen orange juice will be a particularly good buy this month because of the big supplies. Serve it for breakfast for the vitamin C your family needs each day, but use it also as a tangy topping for a fresh fruit salad, blended with mayonnaise. Equal parts of cranberry juice and single-strength orange juice will make a good appetizer for special occasions.

Broiler-fryers make good eating any time. Wise consumers will take advantage of the large supply and low prices by serving chicken often in a variety of ways.

Apples, grapes and pears will provide the makings for an attractive salad bowl. This year's apple crop, expected to be about 9 percent above average, will furnish plenty of fruit for pies, applesauce and eating out of hand. Tokay grapes, normally marketed early in the fall, are expected to last into November this year. Bartlett pears are still on produce shelves and the winter varieties of Bosc and Anjou will arrive during the month.

Potatoes are the only vegetable featured on the November plentiful list. Though the crop will be smaller than last year, it is still 22 percent above the recent 10-year average.

Canned Maine sardines and shortening will also be good buys this month.

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Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
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To all counties

4-H NEWS

4-H OPEN TO URBAN,
SUBURBAN YOUTH

Boys and girls living in towns, cities and suburban areas as well as in the country are eligible to join 4-H clubs.

At present about a fourth of all 4-H members are from urban and rural nonfarm homes, according to the State 4-H Club Office at the University of Minnesota.

During the first 25 years of 4-H work in Minnesota nearly all 4-H'ers lived on farms. The shift in membership to more urban and rural nonfarm members has come about in the last 25 years partly because business and community leaders have urged that 4-H club work be extended beyond rural areas.

Minnesota counties drawing 100 percent of their 4-H membership from rural nonfarm and urban homes include Ramsey, Cook and Lake. More than 65 percent of the 4-H members come from urban and nonfarm homes in these counties: Hennepin, North St. Louis, South St. Louis, Anoka and Crow Wing.

As club membership has broadened, more projects have been added and many old projects have been adapted to appeal to urban and nonfarm boys and girls. Among the newer projects are career exploration; town and country business; a study of marketing; automotive care and safety, which involves learning about care and safe operation of cars and costs involved; photography; and entomology, an opportunity to identify and study insects and their relationships to plants and animals.

Many other projects are suitable for young people living in cities and towns. Girls can choose any of the four homemaking projects including foods, food preservation, clothing and family living. Boys may be interested in shop and electric projects. Gardening, home yard improvement, conservation, safety, health and junior leadership have attraction for both boys and girls.

Though 4-H'ers work at their projects, they also have fun. Recreation is a part of every club meeting. Talent shows, picnics, club tours, county camps and sports days are among ways 4-H'ers make friends.

Anyone between the ages of 9 and 21 is eligible to join a 4-H club. If you live in town and would like to belong, contact the county extension office for help in forming a club if there is none in your community.

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Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 30, 1962

To all counties

4-H NEWS

CITIZENSHIP
IS INTEGRAL
PART OF 4-H

What is the role of a citizen in a constantly changing society?

Although this question may never be fully resolved, there are many avenues of development a young person can follow to become a mature and well rounded citizen.

Participation in 4-H Club work assists young people with their development through a variety of projects and special activities.

4-H'ers put their slogan "learning by doing" into practice as they organize, plan and run their own programs in their local 4-H club. Members serve as officers and as junior leaders. The junior leadership project provides experienced older 4-H'ers with a variety of leadership opportunities. They act as project leaders, teaching and helping the younger members plan and carry out work for their projects.

Often, clubs select a special citizenship activity such as health, safety or recreation and carry it out at the community level by entertaining at hospitals, assisting with health campaigns or conducting drives to reflectorize machinery and bicycles.

Through the 4-H radio speaking contest, 4-H'ers take a look at their relationships with others at home and abroad. In addition to developing an inquiring mind about human relationships, the members learn to organize their thoughts and to communicate their ideas effectively.

Two special projects emphasize citizenship at the national and international level. Approximately 30 4-H'ers who participate in the annual Minnesota-Maryland exchange see how 4-H'ers live and work in another state and attend a citizenship short course at the National 4-H Center, Washington, D.C. The International Farm Youth Exchange (IFYE) program gives American young people an opportunity to live and work with a family abroad for periods from three months to one year. 4-H families in the United States also act as hosts to IFYE delegates from other countries.

The national citizenship program recognizes club members who participate in community and civic affairs and in good citizenship work. National award winners in this project have developed understanding, interest and knowledge of the responsibilities of a citizen.

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To all counties
For immediate use

F A R M F I L L E R S

Are silo unloaders time savers? Not necessarily; their biggest advantage may be in making the work easier. In a study on a hundred Minnesota dairy farms, University of Minnesota economists found that most farmers watch the unloader run as part of the work procedure. Therefore, there was little actual saving in time. Also, unloaders were no more efficient in average feeding time per cow for large herds than for smaller ones.

* * * *

Crop varieties vary in the amount of nuclear fallout which accumulates in the grain, according to research by University of Minnesota agronomists. Some varieties of wheat had four times as much strontium in the grain as did other varieties. In barley and soybeans, some varieties had three times as much as others. This was after the same amount of radioactive material had been added to the soil in each case. One implication: it might be feasible to develop varieties that accumulate a minimum of radioactive particles.

* * * *

A pointer on Dutch elm disease: Any control decisions apparently need to be based on ornamental value of the elm and cost of removing dead trees--rather than on the timber value of elm trees. In 1954, the most recent year for which detailed figures are available, about \$1 million worth of roundwood elm products were manufactured in the state. That, according to University foresters, is only a fraction of the total value of forest products for that year.

* * * *

Should you incorporate your farm? Only your own particular situation can give the answers to that question. Advantages may include ease of ownership transfer and limited debt liability. Disadvantages include higher taxes in some cases and the formalities that such organization requires. You can get some detailed guides from University Experiment Station Bulletin 461, "Incorporating the Family Farm Business." The county extension office has copies.

* * * *

add 1 - size, value of farms

3 to 8 percent in several western counties and from 3 to 20 percent in the counties north of and including the Twin Cities. Highest increase was 20 percent in Koochiching county.

Average value of land and buildings per acre rose 45 percent. Highest changes tended to be in an area south of and including the Twin Cities, including Freeborn and Hower counties along the Iowa-Minnesota border and including a strip west of the Twin Cities and extending north and west through most of the Red River Valley.

The rest of the state--including most of the northeast and southwestern counties--reported changes less than the state average.

Average value of land and buildings per farm rose from \$21,100 in 1954 to \$33,000 in 1959, for a 56 percent increase. This reflects both the rise in acreage and the increase in per acre value of land and buildings.

These and other changes are reported in Special Report 8, "A Look at Minnesota Agriculture," and published by the University's Agricultural Extension Service. You can get a copy from the county agent's office.

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To all counties

TRENDS IN SIZE,
VALUE OF FARMS
CITED FOR STATE

You hear a good deal about change in agriculture these days.

Here is a look at what's been happening to number, size, and value of Minnesota farms in recent years. The data are compiled by B. G. Crewdson, H. C. Pederson and K. H. Thomas, extension agricultural economists at the University of Minnesota.

Most comparisons are for changes between Jan. 1, 1954 and Jan. 1, 1959.

Total number of farms, based on the census definition of the time, decreased from 188,952 to 145,662. In 1954, a "farm" included places of three or more acres, if the value of products produced amounted to \$150 or more, and places of fewer than three acres if the value of products sold was \$150 or higher.

In 1959, the definition included farms of 10 or more acres if value of farm products sold were \$150 or more, and farms of less than 10 acres if value sold was \$250 or more. Change in definition alone resulted in a drop of 2,424 farms.

Number of commercial farms decreased from 146,527 in 1954 to 120,316 four years later. Commercial farms are those with sales amounting to \$2,500 or more, or with a value of sales of \$50 to \$2,499 if the farm operator is under 65 and first, didn't work off the farm 100 or more days of the year and, second, if the income received by the operator and members of his family from nonfarm sources was less than the value of all products sold.

Average size of farms has increased steadily, from 175.4 in 1945 to 195.4 in 1954 and 211.4 in 1959. The trend is not uniform throughout the state, however. Size of farms in Sherburne county actually decreased 2 percent. The range of increase was from 5 to 9 percent in most counties south of the Twin Cities, from

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To all counties
For immediate use

SUBSOIL CHECK
OF FERTILITY
IS MORE ACCURATE

Soil tests might tell you more if you go down farther to get the sample.

The subsoil largely determines amount of moisture available to plants.

Corn on some soils might get as much phosphorus from the subsoil as from the plow layer.

Also, you can spot lime needs better if you have a lime test on both the surface and the subsoil.

John Grava, supervisor of the University of Minnesota soil testing laboratory, checked subsoils of four major soil series of southern Minnesota. Some of his findings:

Fayette soils (most common in southeastern Minnesota) are acid more than 4 feet down, below the regular rooting zone. This acidity is a result of high rainfall, great subsoil permeability (ability to allow solutions to move through) and the specific way this soil was formed over a period of several thousand years.

Hayden, Nicollet and Barnes soils show distinct differences in subsoil acidity. Nicollet soils (in south central Minnesota) are slightly acid at the 1-foot depth. These soils clearly have less need for lime than either Fayette or Hayden soils, Grava says.

Hayden soils are acid to a depth of 2 feet but have a lime-rich layer at about $3\frac{1}{2}$ feet. That layer is out of reach for most farm crops, though.

Barnes subsoils are neutral to alkaline. Free lime may be present in the rooting zone and such fields usually need no extra lime.

-more-

add 1 -- subsoil check

What may happen is this. A crop might conceivably give no yield increase when fertilized if subsoil fertility is high--even with a soil test showing low fertility in the plow layer.

In other cases, some subsoils may be so low in fertility that plants must draw all their nutrients from the surface soil.

So it's important to know about the subsoil fertility level. Fortunately, we now know the nutrient levels in the subsoil of the major soils. Therefore, the likely nature of the subsoil is taken into account in translating the test results into fertility recommendations.

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To all counties
For immediate use

HIGHER EGG PRICES
ARE POSSIBLE
IN MINNESOTA

Minnesota egg producers could get higher egg prices--especially if they consistently produce high quality eggs.

But producing in volume is also important, a recent University of Minnesota study shows. Some buyers now offer up to 2 cents premium per dozen for volume production of high quality eggs.

Agricultural economist W. K. Ullman found several reasons why buyers prefer high quality eggs in volume. One buyer explained them this way.

1. A check costs 38 cents to write. When eggs come in single case lots (30 dozen) administrative cost is 1.3 cents per dozen but with 10 cases, cost per dozen for administration goes down to .13 of a cent.

2. Each lot of eggs require a slowing down at the grading point. Before a new egg lot is started through an automatic grader, grades from the previous lot must be recorded. This means more plant time loss per dozen if there are many small lots.

3. Group scanning of high quality eggs reduces in-plant labor costs. When a receiver deals entirely with top quality, he can safely use the group scanning, or flash candling, method. Lower quality and mixed quality eggs must be hand candled, which costs more. Saving from consistently high quality eggs can be 11 cents per case.

4. Route truck time per case is higher on farms with small volume.

A recent U. S. Department of Agriculture study showed that average assembling cost in western states, where flocks are larger, was 9.7 cents per case. In the

add 1 - higher egg prices

north central states, the same cost was 31 cents. This difference would pay a third of the trucking cost of Minnesota eggs to New York City.

According to current volume-quality premiums, a weekly sale of at least 15 cases brings a premium of \$4.50 or more. That amounts to \$23 $\frac{1}{4}$ or more a year. If a farmer sells 35 cases or more per week, the added income from the premium is \$1,09 $\frac{1}{4}$ or more annually.

To qualify for the minimum volume-quality premium of 1 cent per dozen based on 15 cases per week, a poultryman would need between 1,300 and 1,400 layers. This is allowing for production between 60 and 65 percent and assumes a reasonable annual death loss.

About 70 percent of Minnesota's eggs must be consumed outside the state, according to Ullman. The transportation cost is about 3 cents per dozen to reach the most distant markets. Therefore, eggs must be bought from Minnesota farmers at least 3 cents under equal quality eggs produced in the New York marketing area, when other costs are equal.

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Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
October 30, 1962

To all counties
ATT: HOME AGENTS

TODAY'S YOUTH

Better diets, along with higher incomes and better medical care, have produced sturdier and taller Americans.

Today's 9-year-old boy is an inch or so taller than his father was at that age.

At manhood he stands 2 inches taller than the average young man did at the turn of the century -- 5 feet 10 inches compared to 5 feet 8 inches. His weight is about 20 pounds more.

Women, too, are taller. They average about 5 feet 4 inches today compared to 5 feet 2 inches in 1900. But the women, watchful of their calories, weigh less for their height than their grandmothers did by some 6 to 8 pounds.

The rising percentage of six-footers among college freshmen is a reflection of increased average height of the U. S. population. In 1883 only about 4 percent of the young men entering Amherst and Yale were 6 feet and over. By 1915 the percentage had risen to 10 percent, and in 1956 and 1957 nearly a third of the freshman classes at both schools measured at least 6 feet.

Comparisons of college women with their mothers show that the younger generation in recent years has averaged about an inch taller than the older generation.

The gradual increase in stature of the U. S. population, U. S. Department of Agriculture scientists believe, is due to a combination of many factors, including improved knowledge of nutrition, abundance of food in this country and steady improvement in the economic condition of most of the people, with the result that diets are better. Advances in medical care and sanitation are also making it possible for more people to achieve their inherited growth potential.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
November 6, 1962

SPECIAL TO:
Kittson, Roseau, Marshall,
Polk, Pennington, Red Lake,
Norman, Clay and Wilkin
counties.

MINIMUM TILLAGE WORKS ON POTATOES

Value of the minimum tillage idea in seedbed preparation has been shown again--this time in potatoes.

University of Minnesota researchers found that planting potatoes on plowed but otherwise unworked soil gave yields as high as where the field was disked or cultivated before planting. And while these studies were in the Red River Valley, the basic principles of minimum tillage apply nearly everywhere.

In general, minimum tillage means working the soil less--not necessarily to increase yields, but to do as well with less effort, less soil compaction, and less damage to soil structure. One of the best-known applications has been in corn production, through such means as planting in wheel tracks on plowed but undisked land.

The recent potato studies were done by George Blake, soil scientist, G. W. French, a U.S. Department of Agriculture engineer, and R. E. Nylund, horticulturist.

Ordinarily, potato planting involves plowing and working the seedbed with tillage equipment before planting, then cultivating the crop several times during the growing season.

In the Red River Valley studies, some land was plowed, but potatoes were planted without any secondary seedbed preparation at all. The study was conducted for three years, in each case on fall-plowed land.

-more-

add 1 - minimum tillage works on potatoes

On the average, yields where no seedbed preparation was used were just as high as where the land had been either field cultivated twice, or worked with a disk and spike-tooth harrow. One procedure did result in lowered yields. That was "row matching," a treatment in which the field was prepared for planting with two 16-inch sweeps, 38 inches apart on a trailed implement.

In the first experiment, for example, potato yields in bushels per acre were: no pre-plant tillage, 249; field cultivation, 261; row matching, 219. The difference between the first two figures is not large enough to be considered significant; difference between the first two and the third is.

Anti-weed chemicals helped, too. Where the chemicals were used, yields were as high with one cultivation during the growing season as with three.

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Information Service
Institute of Agriculture
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November 6, 1962

To all counties

CAMPAIGN PLANNED
TO RID STATE
OF SHEEP SCABIES

Sheep producers, marketing groups, farm organizations, veterinarians and state and federal agencies are joining forces to eliminate scabies in Minnesota sheep flocks.

Result of the program should help keep and expand Minnesota's markets for sheep and wool, according to Raymond B. Solac, extension veterinarian at the University of Minnesota.

Scabies is a rather rare but highly contagious skin disease, caused by tiny mites. It is also called mange or scab, because of itching and thick crusts of scabs which form on the skin.

Starting Dec. 17, all farms with sheep will be visited by a representative from one of the cooperating agencies who will look for any unusual signs in the sheep. The visitor will be either a county agricultural extension staff member, a vocational agriculture instructor, or a staff member from the Minnesota Department of Agriculture, Live Stock Sanitary Board or other agency.

The Live Stock Sanitary Board will be notified of all sheep which rub, scratch, have loose wool or show other signs of scabies. These sheep will be examined by state or federal veterinarians who will determine whether the animals have scabies or other conditions which resemble scabies--such as scrapie, ticks, lice, eczema, Ausesky's disease or infected wounds.

So far, the expectation is that few cases of scabies will be found.

Infected sheep will be dipped in a solution, under official supervision and at state expense.

-more-

add 1 - sheep scabies eradication

Minnesota will qualify as a scabies-free area after the USDA is assured that scabies no longer exists and sheep are protected from reintroduction of the disease. Then, sheep from Minnesota will be able to move freely into any area for any purpose.

Scabies has both direct and indirect results. First, there is a decrease in quality and quantity of fleece, in weight and condition. Sheep may even die unless treated.

More important, however, are indirect effects in loss of markets. As a result of increased cases of scabies in midwestern and eastern states in recent years, federal regulations were changed as of August, 1960. Since then, more states and the federal government have been working with the livestock industries to complete the eradication of scabies.

Sheep from infected areas, except those intended for immediate slaughter at a recognized slaughter center, can cross state lines without restrictions only to go to other infected areas.

Infected areas have become fewer in number in recent years. All sheep other than those from scabies-free areas or those for immediate slaughter, must be dipped within 10 days before moving and must have certificates.

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Information Service
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November 6, 1962

To all counties
For immediate use

CHAIN SAW
NEEDN'T MEAN
HARDER WORK

Logging or thinning that woodlot this winter needn't be back-breaking work.

One reason is the new light-weight chain saws, according to William Miles, extension forester at the University of Minnesota. He says that when properly used, a chain saw can cut the long hours of pulling a hand saw into a few minutes work.

He does, however, suggest some basic rules for using a chain saw.

Start the saw on the ground or on the stump, not on your knee. Don't walk with the chain saw running, and always carry the saw with the blade pointing to the rear.

Use the spurs or "dogs" in making your cuts--not the tip of the saw. Don't limb or cut brush with the chain saw. Start cutting only when you have a clear place to work, a secure footing, and a safe exit from falling limbs and the tree. Warn other persons in the area before a tree falls. When bucking, be careful not to pinch the bar or roll the logs.

You're dealing with a very explosive fuel, so don't smoke while filling the gasoline tank. Maintain correct chain tension and adjust the idling screw so that the chain stops when the motor is idling. Follow the manufacturer's instructions for the maintenance of your saw.

Your chain saw is a fine machine. It has the power of five horses and can cut through two feet of wood as easily as you could cut a piece of bread. It can cut your arm or leg just as quickly and easily--so treat it with the respect it deserves.

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Information Service
Institute of Agriculture
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To all counties
For immediate use

F A R M F I L L E R S

Does fertilizer affect protein in corn? To some extent, yes. University of Minnesota studies show that nitrogen fertilizer means more total protein in the grain as well as more protein per acre--through higher yields. But here's a problem: The increase isn't uniform for all amino acids which make up proteins. Levels of some of the most important ones often show little change, while level of less important amino acids goes up. Soils men are continuing research on this question.

* * * *

Bigger poultry flocks mean higher profits per hen--as well as more total income. Among 96 members of three Minnesota Farm Management services, flocks of 800 birds or more averaged \$2.04 per hen above feed cost. Compare that to \$1.38 for flocks of 400 to 499 and 64 cents for those under 200. One reason for the difference is rate of production. Flocks with 300 hens or more averaged 40 eggs more per hen annually than did those with fewer than 200 birds.

* * * *

Iodine 131 research: Keeping cows inside and giving them dry feed can reduce iodine 131 accumulation in milk to negligible levels when fallout increases, recent University studies show. Furthermore, detection methods can spot the danger within hours after nuclear fallout begins to reach dangerous levels. In the University studies, milk from cows spending all their time in pasture showed an iodine 131 level in their milk of 760 micromicrocuries per liter on Sept. 20. On Sept. 27 they were brought inside and given dry feed. By 72 hours later, the iodine 131 count in their milk dropped to only 80.

* * * *

When fumigating stored grain follow these label precautions. Keep someone outside or near the bin, and don't breathe the fumes. These fumigants are extremely dangerous. Keep everyone out of the bins for four or five days after the job is done.

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Information Service
Institute of Agriculture
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To all counties
For immediate use

GOOD COWS NEED
MORE GRAIN
FOR HIGH PROFIT

A dairy cow can have a good family tree and still be a money-loser--especially if she isn't getting enough grain.

The old thumb rule of "one pound of grain to three or four pounds milk" isn't always the best, according to extension dairymen at the University of Minnesota. Such a rule means too little grain for cows with better inherited ability. Better to challenge these cows with extra grain and find those who can put more in the milker.

Besides, grain may not be your most expensive feed. In Minnesota, net energy for milk production may often be as cheap in grain as in hay or silage. For example, if alfalfa hay is worth \$15 per ton, dry ear corn is a cheaper source of energy if it can be bought at less than 9 $\frac{1}{4}$ cents per bushel.

If alfalfa is worth \$20 per ton, ear corn is cheaper if you can get it for under \$1.25 per bushel.

Grain feeding starts with the dry cow. The extension dairymen say, feed enough grain in the dry period to have cows in good flesh by calving time. Then feed at least a pound of grain daily for each 100 pounds of body weight of the cow during the last three weeks of the dry period.

Does grain feeding in the dry period make udders swell up? Recent research shows little effect.

After calving, good judgment and "cow sense" is important. Increase grain a pound per day or as appetite permits. Watch the way a cow eats; you need to know

add 1 -- cows need grain for profit

when she has reached a limit. Step up grain as long as the cow continues to increase in milk production. At 1.5 to 2 cents, a pound of grain is a good trade for a pound of milk.

Cows giving 70 to 90 pounds of milk daily can use 25 to 35 pounds of grain daily. Some cows set their own limits and won't eat this much grain. Many good cows, however, will eat it and return a higher profit by doing so.

You might try heavier grain feeding on some of your better fresh cows. If they go up in production, they should show more net return. With a lot of soft corn in many areas, this is a good year to make sure cows get enough grain.

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To all counties
ATT: HOME AGENTS

"TLC" IS IMPORTANT
IN FURNITURE CARE

TLC (tender, loving care) goes a long way with furniture as well as your personal beauty care.

Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota, gives these "TLC" tips to help keep your furniture in good condition.

Wood: Store extension leaves for the table in a cool, dry place to avoid warping. Never place fine woods where they'll be subjected to excessive heat, direct sunlight or open windows.

Scratches: Touch-up sticks and putty sticks are available in a variety of colors to blend with finishes. Occasional thorough cleaning and waxing works wonders toward restoring original good looks. Scratches and mars may be touched up or covered with matching colored varnish applied with a fine water color brush.

White or foggy spots: Use any liquid oil such as salad oil to remove white spots on furniture. Rub into the spot with your finger. Your warm finger and the resulting friction drives the oil into the damaged area. Continue until the spot is no longer noticeable.

Upholstered fabrics: Remove as much dirt and dust as possible by vacuuming before cleaning upholstered pieces. Remove grease stains such as those caused by hair oil with a grease solvent such as a dry cleaning fluid, using necessary precautions. Try any cleaning solution in an inconspicuous place first if you are uncertain of color fastness.

To remove spots, never pour cleaning solvent directly on the fabric; pour it on a clean cloth. Blot up excess cleaner with tissues or a soft cloth and sponge lightly with alcohol. Avoid bleaching agents.

Leather and plastic upholstery: Use a mild soap and a damp cloth to clean leather or plastic upholstery. Rinse with a second damp cloth and rub with a dry clean cloth. Don't use furniture polish.

As a final tip Mrs. Zabel suggests reading the manufacturer's tags. They often provide excellent instructions for the best care of their products.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
November 13, 1962

To all counties
For immediate use

PREINOCULATION
IN LEGUMES
UNDERGOES TESTS

Preinoculated legume seeds have come through some stiff testing fairly well.

Based on recent research, plant pathologist Roy D. Wilcoxson at the University of Minnesota and agronomist K. L. Blanchard from the Minnesota Department of Agriculture make this conclusion: Most preinoculated seed sold in Minnesota during the past year was probably inoculated at planting time and living bacteria were present.

In 1962, about 90 percent of the alfalfa and clover seed purchased by Minnesota farmers was preinoculated--meaning the inoculation was done before the seed was sold. Studies of market samples of such seed was started at the University in 1961.

The researchers stored each sample lot at room temperature and also at other temperatures. At several times during an 8-month period, seed was tested for formation of nodulated plants.

In 1962, inspection was on a larger scale. The state Department of Agriculture collected samples of preinoculated seed from January through April from retail outlets, from lots of seed that farmers would buy.

On the whole, about three samples in four yielded plants with satisfactory nodulation. There was, however, variation according to the type of process used for alfalfa and red clover.

There were no evident differences among processes for sweet clover and alsike clovers.

Specific findings for different preinoculation processes are reported in the current issue of Minnesota Farm and Home Science, an Agricultural Experiment Station publication. You can get a copy from your county extension office.

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Information Service
Institute of Agriculture
University of Minnesota
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November 13, 1962

To all counties
ATT: HOME AGENTS

WHAT DO YOU PAY
FOR APPLIANCES?

How much do you pay for your appliances? And how much money do you have tied up in equipment -- some of which you never use?

Perhaps you pride yourself on being a good family purchasing agent -- you do comparison shopping and buy only after you're sure you're getting the best value for the money you spend.

But Mary Frances Lamison, state home economics agent at the University of Minnesota, points out that regardless of the amount of money you thought you saved on a piece of equipment, it wasn't really a good buy at all if you don't make use of it. She suggests that families take inventory of all equipment they have in the home to see how much they use various appliances and how much money is tied up in these pieces.

After making such an evaluation, one woman discovered \$50 worth of equipment her family used never or seldom; another woman, however, found the family had \$2,856 worth of needless equipment.

In taking your inventory, list equipment and supplies on the lefthand side of the sheet. Then make three columns to the right for checking: seldom used, never used and cost of features seldom or never used.

Here are some suggested items for your check list of equipment or supplies: washing machine suds saver, rotisserie, timed cooking on range, pull-out oven on range, floor polisher and scrubber, lawn mower and snow plow attachment, electric roaster, pressure saucepan, electric mixer with grinder or juicer attachment, electric mangle, kitchen gadgets, vacuum cleaner attachments, record player, F.M. radio, company dishes, company tablecloths.

How many of these extras in equipment do you keep without getting your money's worth in use?

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To all counties

4-H NEWS

4-H PROJECTS
STRESS SCIENCE

The increasing emphasis on science now evident in education and government is also being felt in 4-H activities.

Since its earliest beginnings, 4-H has been concerned with better methods, based on science and research, according to Earl Bergerud, assistant state 4-H Club leader at the University of Minnesota. Now revision of many of the projects will stimulate youth to be curious to explore and understand why things happen as they do in the world about them; will help them to think objectively, logically and imaginatively and to appreciate the value of science to a better way of life.

With the rapid rate of scientific and technological changes in recent years, it is important for young people to understand the scientific principles behind approved practices, says Bergerud. In agreement with this statement, the National Science Foundation has awarded the National 4-H Club Foundation a grant of \$47,200 to provide an analysis of the effectiveness of the current 4-H program in relation to science education, with recommendations for improvement.

The National Science Foundation is interested in 4-H because it offers a unique approach in the field of science education. The Foundation sees an opportunity to add a scientific emphasis that will be consistent with the objectives and values of 4-H.

The new emphasis in the 4-H dairy project is an example of the scientific approach. Members learn, for example, not only proper feeding and management of their animals, but also the "whys" of nutrition, such information as how a cow can make milk from roughage and the story of inheritance.

-more-

add 1 - projects stress science

In the 4-H electric project, members not only learn the "how" but, more important, the "why" behind the project. With the scientific background which members gain at the beginning of the project, they have a foundation for their projects and experiments. They learn about the relationship between current, voltage and resistance; the distribution of electricity on the farmstead; electrical safety; electric motors and the care of their tools.

Food preparation, agronomy, entomology -- these are only a few of the other projects that are stressing science -- putting emphasis on the "whys" as well as the "hows."

-kmr-

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
November 13, 1962

To all counties
For immediate use

F A R M F I L L E R S

Research on problems of elderly persons is being conducted by rural sociologists at the University of Minnesota, in cooperation with state and local agencies. In 1960, there were some 354,000 persons 65 and older in Minnesota, compared to 270,000 in 1950. This growth rate is twice that of the state's general population. One of every 25 persons in 1900 was over 65; today, the figure is one in 10.

* * * *

Funds needed for farming: University economists recently studied resources needed for certain kinds of dairy farm expansion. Suppose a farmer already has 200 acres cropland and a stanchion barn. If he wants to expand to an operation with 30 milk cows, 28 spring farrowing sows, 900 purchased feeder pigs and 100 acres more land, here's the credit he needs: about \$42,000 short and long-term credit, largely for a down payment to buy land, hogs, and additional equipment.

* * * *

A one-row windbreak? Might be a good idea out in the fields, according to Marvin Smith, extension forester at the University of Minnesota. He suggests a series of single-row, pattern-type windbreaks, spaced 20 to 40 yards apart in the fields at right angles to the path of the wind. Such windbreaks trap snow, adding to soil moisture. They also reduce summer moisture losses from evaporation.

* * * *

Farm products go abroad--and at a record rate last year. Total value of farm exports purchased in other countries for the year ending June 30 was over \$5 billion, according to the U.S. Department of Agriculture. This was 4 percent over the previous year, and accounted for about 15 percent of the total farm cash receipts. Biggest purchaser was Japan, with \$550 million. United Kingdom, Canada, West Germany and Netherlands were also big buyers.

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Institute of Agriculture
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St. Paul 1, Minnesota
November 13, 1962

To all counties
For immediate use

CHRISTMAS TREE
BUYERS SEEK
HIGHER QUALITY

Balsam fir is the tree most often selected by Minnesotans as their Christmas tree.

This was shown by a study conducted by the University of Minnesota School of Forestry. It also reveals that tree handlers -- wholesalers and retailers -- are finding it harder to locate ample supplies of good quality trees.

Marvin E. Smith, extension forester, says acreage of balsam fir in the state is increasing, but where special cultural methods are not used, few trees develop into shapely, thickly-branched trees.

This points out a good opportunity for forest owners in the northern parts of the state to improve their income, Smith says. They should manage their balsam fir stands for better Christmas tree production.

Usually new growth balsam fir is so thick several years after logging of mature trees that it resembles a thicket.

Two procedures will help individual trees to develop properly, Smith suggests:

1. Stands need to be thinned much as gardeners thin rows of carrots. Trees should be spaced from four to six feet apart.

2. Individual trees should be sheared after they reach heights from three to four feet or when the tip leader starts to grow faster to encourage proper shape and to limit annual growth. Balsam fir should be sheared in the fall or winter when the tree is dormant.

For additional information, Smith suggests that you ask your county agent for a circular, "A Guide for Shaping Conifers in Christmas Tree Plantations."

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Institute of Agriculture
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November 13, 1962

To all counties
For immediate use

U.M. RESEARCH
SEEKS ANSWERS
TO BLOAT PROBLEM

Why does bloat in cattle kill so quickly and so easily?

University of Minnesota researchers under the direction of Dr. C. M. Stowe, chairman of the Department of Veterinary Physiology and Pharmacology, have found some of the answers to this question.

The problem of bloat or "acute tympanites" is world-wide and costly, Dr. Stowe says. United States farmers lose an estimated \$50 million annually from the disease. Other cattle-growing nations are hit equally hard.

Professor Stowe explains that bloat is usually associated with lush legume pastures. Cows, sheep or goats placed too quickly on the pasture sometimes develop bloat. Unless treatment is prompt the affected animals may die.

Cows have four stomachs. The largest of these, called the rumen, contains coarse food undergoing fermentation. The rumen also contains gas created by the fermentation. Usually the animal belches this gas. But sometimes the gas builds up in the rumen. It causes the abdominal distention and great pain.

Minnesota researchers tried at first to induce bloat by putting cattle on lush legume pasture. It didn't always work. Then they devised a substitute which seemed to have the same effect.

Dr. Stowe says that they first anesthetized a cow so it would not feel the pain. Then they introduced gas under pressure into the animal's stomach until the characteristic distention and other symptoms appeared.

He said that three important changes took place in the experimental animal's body processes:

add 1 - bloat effects

. Increased pressure in the stomach caused constriction of nearby blood vessels and cut off some of the flow of blood to nearby organs. The heart also was displaced which could lead to heart and circulatory failure.

. High abdominal pressure crowded the lungs and interfered with breathing, thus denying the animal of needed oxygen.

. The combination of circulatory and respiratory interferences lead to a build-up of waste products in the animal.

When all three of these dangerous effects are combined, Dr. Stowe says, it is easy to understand why animals with bloat die so quickly and easily.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
November 20, 1962

Immediate release

WABASHA COUNTY YOUTH WINS SHOP AWARD

A trip to the National 4-H Club Congress in Chicago and cash awards are in store for nine 4-H youths for their skill in shop work.

Robert Hink, 17, Lake City, has been named state winner in the 4-H shop project, Leonard Harkness, state 4-H Club leader at the University of Minnesota, announced today. He will receive an all-expense trip to the Club Congress in Chicago from Fullerton Lumber Co., Minneapolis.

Eight blue ribbon winners were selected in the shop project: David Mueller, Route 1, St. Paul; Robert Week, Evansville, Rodney Wilson, Red Wing; Glenn Freitag, Litchfield; Lawrence Corbin, Rochester; Kenneth Knutson, 982 N. Century, North St. Paul; Dennis Johnson, Osakis; John Simon, Lewiston. They will receive cash awards from Republic Steel Corporation, Cleveland, Ohio.

A farming partner with his father, Robert began 4-H work nine years ago. He took a variety of projects during the first years and tried the farm and home shop project when he was 12. It has now become his favorite.

For many years the Hinks had been bothered with pocket gophers on the farm. Robert priced gopher poisoning machines at \$250 to \$350 and then started to make his own. The entire cost of material he used came to \$98. His gopher poisoning machine won him a trip to the State Fair where he received a blue ribbon.

At the 1962 State Fair, Robert was grand champion in the 4-H shop project with his power post hole digger. He not only saved close to \$100 on the post hole digger, but he also saved himself much time and effort because he will no longer have to dig "endless" post holes by hand.

Robert has been a member of the Mt. Pleasant Pheasants 4-H Club for nine years and an active junior leader for four years.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul I -- tel. 647-3205
November 20, 1962

Immediate release

HORTICULTURAL SOCIETY ELECTS OFFICERS

Wilbert G. Sindt, 1847 North McKnight Road, St. Paul, has been elected president of the Minnesota State Horticultural Society for 1963.

E. C. Lehman, Faribault, is new vice president.

Elected to executive board terms of three years were Mrs. Lambert Klosowsky, 2105 Central Entrance, Duluth, and Carl J. Holst, 4225 Chowen Ave., Minneapolis.

Sixteen winners of honorary awards for 1962 were announced by E. M. Hunt, executive secretary of the Horticultural Society. They were selected from nominees in all parts of the state and will receive special recognition for outstanding gardening achievement.

Awards and the recipients are:

Honorary life membership--Mrs. Donald Finger, Northfield.

Distinguished service certificates--Kenneth W. Fisher, 2208 Wentworth Ave., South St. Paul; Mrs. Omar Holden, Houston; Mrs. Alfred Schroeder, Eagle Bend; Mrs. Oliver Lee, Perley; and Mrs. Edgar Wold, Roseau.

Award of merit certificates--Carl Almquist, Center City; Mrs. Ed Struck, Austin; Mrs. Holger Ostgaard, Sherburn; Mrs. Ted La Sar, Brainerd; Mrs. Harold Worcester, Sr., McGregor; Mrs. Hans Holman, Duluth; C. W. Richards, Bemidji; Mrs. Harold Grotte, Bemidji; Mrs. Martin Gulbranson, Thief River Falls; Mrs. Herman Christopherson, Thief River Falls; and Mrs. Bertina Setran, Badger.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
November 20, 1962

Immediate release

AWARDS TO 4-H BREAD BAKERS

Bread baking is not a lost art, if achievements of a group of Minnesota 4-H girls are an indication.

For their ability to turn out golden loaves of bread and for long-time records in the bread project, the girls have won awards ranging from a trip to the National 4-H Club Congress in Chicago to savings bonds and cash prizes.

Janice Mann, 16, Luverne, will receive a trip to the National 4-H Club Congress in Chicago Nov. 25-29 as highest ranking bread demonstrator in the state. Savings bonds of \$50 each will go to the two demonstrators ranking next in line--Linda Mann, 14, who gave a purple ribbon team demonstration at the State Fair with her sister Janice, and Barbara Thomas, 16, Lakeville, who was a purple ribbon individual demonstrator at the State Fair.

Donor of the trip and the bonds is Standard Brands, Inc., New York.

Another outstanding bread baker is Ruth Ann Rolf, 14, Glenoce, who will receive a \$125 cash award from King Midas-Russell Miller Milling Division, F. H. Peavey and Co., Minneapolis.

Five other girls will receive \$50 bonds for their records in the bread project; Marla Wickenhauser, 17, Cologne; Kathleen Albee, 18, Caledonia; Janice Kompelien, 19, Canby; Dianne Cianni, 18, Chisholm; and Mary Jane Pribyl, 16, Maple Lake.

(more)

add 1 -- 4-H bread bakers

The bonds are given by King Midas.

A junior in Luverne High School, Janice earned the title of Rock County bread baking champion last year. She is president of the Blue Mound Climbers 4-H Club and an active junior leader.

Her sister Linda has won ribbons not only on her bread but on her calf also. She received a trip to the Junior Livestock Show this fall. A sophomore in high school this year, she is treasurer of her club and a junior leader.

Since 1957 Barbara has been winning blue ribbons on bread exhibits and demonstrations at Dakota County fairs. Last year she was chosen to represent Minnesota on Farm Journal's Teen Board. A junior in Farmington High School, she is president of the One-Cedar Dodd 4-H Club.

In the five years she has taken the bread project, Ruth Ann has baked 293 loaves of yeast bread, 79 dozen rolls, 41 loaves of quick bread and 51 dozen muffins. Her bread exhibits have received blue ribbons or championships at the McLeod County fair the last four years. A junior bread project leader in her club, she is a freshman in Glencoe High School.

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62-516-jbn

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
November 20, 1962

Immediate release

BIRCH, OAK, POPULAR AS FIREPLACE WOOD IN TWIN CITIES

Wood fuel is staging a sort of a comeback in the Twin Cities.

While few would mourn the demise of the wood-burning stove, many are now buying cordwood for more aesthetic reasons--to keep the glow in the fireplace. And the increasing number of new homes with fireplaces may mean an expanding market for oak and birch trees that are otherwise hard to sell.

University of Minnesota foresters Dennis Schweitzer and Richard Skok recently surveyed 16 fireplace wood retailers in the Twin Cities. These retailers included general fuel dealers, garden stores and landscaping services, construction and home maintenance firms, one grocery store, and some persons selling fireplace wood only.

Birch accounted for 49 percent and oak for 43 percent of the sales. The rest was maple (6 percent), ash (2 percent) and misc. sps. (less than 1 percent). The most common sales unit was a third of a standard cord of mixed oak and birch in 16-inch lengths.

So far, there are few formal standards for fireplace wood. Usually, dry wood was purchased with the understanding that it had been seasoned 10 to 12 months.

Brokers and dealers, who neither harvest nor retail, supplied more than half of the Twin Cities retailers. Owner-producers--persons who owned the timber, harvested it, and sold directly to retailers--accounted for about a third of the volume.

Purchase costs to retailers of oak and birch ranged from \$18 to \$24 per standard cord for seasoned wood. Gross returns per cord were from \$45 to \$54 when sold in units of 1/3 of a standard cord. Maple, ash, and other minor species sold for the same or slightly less.

Gross margins to retailers ranged from 49 to 65 percent of the sale price, with further allowances for seasoning, splitting, drying and transporting, where appropriate.

The majority of the wood came from counties in eastern Minnesota--Rice, Carver, Hennepin, Anoka, Sherburne, Isanti, Pine and Aitkin counties.

The foresters see fireplace sales as possible incentive for forest stand improvement, through offering a market for removal of lower quality standing timber.

Retailers selling fireplace wood in either Minneapolis or St. Paul must have licenses.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
November 20, 1962

SPECIAL
For immediate release

(Only to these counties:
Anoka, Chisago, Washington,
Dakota, Rice, Goodhue,
Wabasha, Dodge, Olmsted,
Winona, Fillmore, Houston)

MARKET USES
OF HARDWOODS
STUDIED AT UIN

Hardwood trees from southeastern Minnesota can find profitable markets, but woodland owners need to take a close look at specifications before they can cash in on these markets.

Foresters R. J. Glass and R. A. Skok at the University of Minnesota recently queried 183 forest products firms in Minnesota and surrounding states. Of these firms, 41 reported buying any black cherry, black walnut, butternut, basswood or soft elm--common species in this area.

Among firms buying such wood were 18 sawmill operators, 6 box and crate manufacturers, 4 brokers and 16 veneer manufacturers. The firms were as far away as eastern Wisconsin and Indiana.

Basswood turned out to be the most acceptable of the species studied; it is popular for crating, boxwood, veneer, and similar uses.

From the standpoint of the woodland owner, the foresters wanted to find out about log specifications. They found a good deal of variation. And they suggest that a seller check on specifications of potential buyers and get a contract before cutting.

Among veneer mills, minimum acceptable length varied from less than five to nine feet. Small sawmills would take logs five feet or less, but several average-sized mills would take them only as short as six feet.

Except for lumber manufacturers, diameter specifications were more consistent than length requirements. Seven veneer producers would accept logs as small as 12

add 1 - hardwood markets

inches in diameter inside bark. Six others would take nothing under 1 $\frac{1}{4}$ inches.

Minimum standards of sawmill operators varied from 6 to 1 $\frac{1}{4}$ inches.

An important thing for the seller to watch is the type of log rule used by the buyer. Both the Scribner and Doyle log scales were used by buyers. Sawmill operators tended to use the Scribner rule, while veneer mills were about equally divided between the two.

A point to remember, Glass and Skok say, is that the Doyle scale is apt to underscale small logs, compared to the Scribner scale. This means that the seller may want to have his price adjusted according to the scale being used.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
November 20, 1962

To all counties
For immediate use
Research Report

SPECIAL TREATMENTS
HELP CONTROL
SHEEP BREEDING

More control over ewe breeding and lambing may be one outcome of some recent research at the University of Minnesota.

By use of special treatments for ewes, the research shows, two things are now technically possible:

- 1) Heat periods in ewes (estrus) can be synchronized to some extent, thereby giving more control over when lambs are born. This could mean having lambs born at a time most convenient in terms of weather, labor, and facilities.
- 2) Ewes can be brought into heat and bred at times when heat ordinarily doesn't occur in these animals. This could mean more lamb crops from the same ewes--perhaps three lamb crops in two years, rather than one annually as is now the case.

Whether such measures are practical for the flock owner remains to be seen, but further research is being conducted.

Studies on fundamental aspects of these treatments have been done by livestock physiologists V. G. Pursel and E. F. Graham. The main materials involved are progesterone, (a female hormone) and FSH (follicle stimulating hormone).

Unlike cows, ewes usually have heat periods at only certain times--roughly between August and January. Some ewes will occasionally come in heat in other months, but the occurrence is unpredictable.

Gestation period (between breeding and lambing) is about 150 days. Therefore, most lambs are born between January and June and only one crop of lambs per year is ordinarily possible.

add 1 - estrus studies

Another problem in sheep breeding is the variability from one ewe to another when they do come in heat. Many flock owners might prefer having ewes bred over a shorter time period, so that lambing would be completed in an equally short period the following winter or spring.

When a female animal ovulates, the follicle from which the egg is expelled develops into a body called the corpus luteum, which produces progesterone. If the egg is fertilized and continues to develop as in pregnancy, the corpus luteum is maintained, and progesterone continues to be secreted, preventing any more heat periods until after birth.

If the egg is not fertilized, the corpus luteum regresses and progesterone secretion stops, allowing another estrus cycle to proceed. Therefore, by artificially administering progesterone, an animal can be kept from coming into heat. To synchronize heat periods, then, researchers administer progesterone to all ewes in a flock for a certain length of time, and withdraw it from all animals at once. Then all ewes will be in heat between two and three days later.

Where it's simply a matter of synchronizing estrus at the time of year when ewes normally come in heat, only progesterone treatment need be used. For inducing off-season estrus, however, the procedure requires a progesterone pre-treatment, followed by injection of FSH to actually induce estrus itself.

Pursel and Graham compared different methods of inducing estrus in off-season months. They found that heat occurred in more than 90 percent of the cases where ewes received progesterone pre-treatment for 9 to 19 days and a single injection of 20 to 50 milligrams of FSH. Ovulation rate varied more when FSH was given 24 hours after the last progesterone injection, compared to 48 hours later.

One question is whether progesterone can be given orally, in the feed. Extra-seasonal lamb production wouldn't be practical if the flock owner had to give

add 2 - estrus studies

several injections. Feeding the pre-treatment material and then giving a single injection of FSH would be simpler.

In their research, Pursel and Graham found that when they fed material containing progesterone for 12 days and then gave the FSH injection, 80 percent of the ewes showed estrus within 48 hours. Therefore, feeding the pre-treatment material may be feasible--although more research is required.

Several lambs have been born to ewes brought into heat in off-season periods. Apparently, however, the conception rate isn't as high as among ewes coming into heat normally.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
November 20, 1962

To all counties
For immediate use

POSTS FROM WOODLOT
CAN LAST 20 YEARS
IF TREATED FIRST

Imagine pine and ash posts set 20 years ago and still standing tall.

Such survival wouldn't be possible--without treating the posts before they go into the ground. Most would have rotted off 15 years ago or more.

Back in 1942 foresters at the University of Minnesota set more than a thousand posts cut from different kinds of trees. Some posts were cold-soaked for 40 hours in a pentachlorphenol solution, with kerosene as a solvent. Others were treated only 24 hours and some received no treatment at all.

This year the foresters checked the same posts by applying 100 pounds of pressure against them to see whether they would stand up or break over. Here's what they found:

Ninety-seven percent of the treated jack pine posts passed the test. And those that did fail were among the 24-hour treatment group.

Black ash, white oak and red oak treated posts did nearly as well. Over 80 percent are still servicable.

About half the treated cottonwood and white birch are still in service after 20 years--quite surprising for these species. Poorest results were with aspen posts, where most failed.

Considering all posts of all species, 78 percent of those given a 48-hour soak are still in service, compared to only 57 percent of those given a 24-hour soak.

Among untreated posts, all failed except 27 percent of the white oak and 8 percent of the red oak. The jack pine, black ash, cottonwood, white birch and aspen untreated posts failed within a few years.

add 1 - post treatments

These tests were conducted at the Cloquet Forest Research Center, the Waseca station, and the St. Paul campus, by J. R. Neetzel, L. W. Rees, foresters, and C. H. Christopherson, agricultural engineer.

These treatments were cold-soaks--the kind that can be done at home. Pressure treatment in commercial plants would give even better results.

For best results when cold-soaking posts, the researchers give this advice: Choose easy-to-treat woods such as jack and red pines. Peel the posts and let them season thoroughly before treatment. Post must be dry first.

If the above species aren't available, black ash and white and red oaks make a good second choice. Cottonwood and paper birch can be used with some success. Aspen isn't recommended when other species are available. But even with this species, treatment can mean a four-fold increase in service life.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
November 20, 1962

To all counties
ATT: HOME AGENTS
Immediate release

CHICKEN IS ON
PLENTIFUL LIST

Broiler-fryers have been added to the traditional twosome of turkeys and cranberries as the featured items on the U. S. Department of Agriculture's list of plentiful foods for December.

Roast chicken for holiday meals will appeal to homemakers with small families both because of the size of the bird and the low price.

Turkeys, too, will continue to be plentiful for holiday dinners and will be available in a variety of sizes. Prices per pound will be easy on the budget.

To go with the turkey or chicken for holiday meals, there will be plenty of high-quality fresh cranberries for sauce. This year's cranberry crop is now estimated at a record 1,398,000 barrels.

Oranges and canned tart red cherries are the other fruits that will be abundant in December. The Florida harvest of oranges is expected to be large. The total U. S. crop will probably surpass the high record of last year.

Grocers' shelves will be well stocked with canned tart red cherries, packed either in water or as a pie filling. If you buy canned cherries for a pie, remember that a 9-inch pie takes about $1\frac{1}{2}$ No. 303 cans. Two cans will give you the makings of a pie and tarts, too. Or you can buy your cherry pies already made from the frozen food case. These, too, will be plentiful.

Maine sardines will be in heavy supply during December from this year's large catch. Sardines make good eating and are an economical source of high-quality protein. They're available packed either in oil or mustard.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
November 20, 1962

To all counties
For immediate use

F A R M F I L L E R S

Pigs inside need extra iron. Baby pigs on pasture probably get enough iron from the soil. Not so for those inside, says Ray Arthaud, extension livestock specialist at the University of Minnesota. One way is to give two injections of iron compounds, each containing 100 milligrams of iron. Give the first when pigs are 3 to 5 days old, the second at 3 weeks. Another way--easier and about as effective--is to give a single but larger injection at 3 to 5 days of age, this one containing 150 to 200 miligrams for each pig.

* * * *

Dehorning in the dairy herd: Do it early, advises J. B. Williams, dairy husbandman at the University. You can use electric or chemical dehorning methods within the first two weeks after birth. Gouge dehornerers are all right between eight and 12 months of age, depending on the calf's size. For older animals, better call on a veterinarian.

* * * *

Lead is lethal to dairy calves. So look for lead poisoning whenever a calf dies suddenly for no apparent reason and particularly when death follows a convulsion. Old storage batteries, lead paint and sprays or other lead sources may be the cause, according to Raymond Solac, extension veterinarian at the University.

* * * *

Parallel terraces are giving soil conservation a new look in some of the corn-grain areas of Minnesota. They require less land in hay than contour strips while still saving the soil. And they avoid the annoying "point rows" that you often have with standard terraces. Besides, parallel terraces can be custom made for four-row equipment, according to C. L. Larson and R. E. Machmeier, agricultural engineers at the University.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
November 20, 1962

To all counties

4-H NEWS

SPEAKING CONTEST
OPEN TO 4-H'ERS

4-H'ers in all parts of Minnesota are beginning to make plans for this year's radio speaking contest.

Members will present their ideas on "How Should 4-H Prepare Me for Responsible Citizenship?" at the twenty-first annual statewide radio speaking contest.

All 4-H Club members are eligible to enter community or county radio speaking events. However, participants in the district contest must be 14 years of age but not over 21 on January 1, 1963. Previous state and reserve state champions are not eligible. Local competition is arranged under the direction of local leaders and county extension agents. Last year over 1100 Minnesota 4-H'ers participated.

The state champion will receive a personal award of \$200, plus \$50 to purchase books on citizenship and human relations for a local library. The state reserve champion receives \$100 and \$25 for books. With the exception of state contest winners, each district champion will win \$15 and each reserve champion \$10. Reserve champions will receive \$2.50. Awards to county champions, except those who become district champions or reserve champions, are \$5.

The contest is sponsored jointly by the Minnesota Agricultural Extension Service and the Jewish Community Relations Council of Minnesota. The awards are given by the Jewish Council.

Further information on these contests may be obtained from the county extension office.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul I -- tel. 647-3205
November 23, 1962

For release Tuesday a.m.
November 27

WADENA COUNTY 4-H'ER WINS NATIONAL AWARD

A Wadena County 4-H'er is the national winner of a \$400 scholarship, Leonard Harkness, state 4-H Club leader at the University of Minnesota, announced today.

Milfred Ollila, 18, Menahga, one of 12 national winners, was presented with a Henry Ford II college scholarship for his outstanding work in the National 4-H achievement program.

Announcement of the award was made last night (Nov. 26) at the National 4-H Club Congress in Chicago, which Ollila is attending. He was also one of 12 National winners of a trip to the Congress in the 4-H Achievement program.

Ollila will use his scholarship at Bemidji State College where he is a freshman.

Ollila was one of the first members of his 4-H club in Wadena County in 1955. Since that time he has taken an active part in 4-H activities, including shop, garden, food preservation, poultry, health, electric and forestry.

This past year Ollila won a radio as first prize in an electrical demonstration contest, a blue ribbon at the State Fair for his 4-H electric demonstration, was champion 4-H electric exhibitor at the county fair and runner-up for state winner in the electric project. He won a trip to the first state electric conference this year.

At the annual State 4-H Conservation Camp early this fall, Ollila was presented with the Keep Minnesota Green Award. Forestry is a favorite project. Last year he planted 3000 trees to form a shelterbelt and windbreak around his farm.

The Pine Cone 4-H Club has benefited from Ollila's leadership. He served as secretary-treasurer one year, as vice president two years, and as president for four years.

For his work as a junior leader, Ollila was named outstanding junior leader in Wadena County. He was also first place winner in the county radio speaking contest, winner in the county tractor driving contest and recipient of a trip to the Minnesota Association of Cooperatives Conference this year.

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62-521-kmr

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
November 23, 1962

For release Tuesday,
November 27, p.m.

REDWOOD COUNTY 4-H'ER WINS NATIONAL ELECTRIC AWARD

An interest in electronics and outer space travel beginning when he was six years launched Gary Hansen's career in science and has led to a special scholarship award.

Hansen, 18, Wabasso, is the national winner of a \$400 scholarship in the National 4-H electric achievement program, Leonard Harkness, state 4-H Club leader at the University of Minnesota, announced today.

The Redwood County 4-H'er is one of six national winners of \$400 college scholarships from the Westinghouse Education Foundation, Pittsburgh, Pa. Hansen is a freshman at South Dakota State College this fall.

Announcement of the award was made last night (Nov. 26) at the National 4-H Club Congress in Chicago which Hansen is attending as state winner in the electric project.

Hansen's early interest in science led to his major achievement this year when he constructed a plasma-ion engine. The engine is for outer space travel, satellite correction and related uses.

He exhibited this engine at the Southwestern Regional Science Fair at Mankato State College where he won a blue ribbon, a physics pin, a certificate of award, top in aerospace power for the Air Force and the top award--a trip to the National Science Fair at the World's Fair in Seattle. At the Fair, he received a finalist medal from the National Science Fair-International.

In 1960, Hansen attended the first state 4-H Electric Conference at the University of Minnesota. Since that time, he has received the 4-H Key Award, has been the county radio speech contest winner, and was chosen grand champion in the electric and shop project in Redwood County.

A junior leader for five years, Hansen has served as secretary, treasurer and is now vice president of the Rainbow Rooters 4-H Club.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
November 23, 1962

For release at 2:30 p.m.
Saturday, November 24

HIGH MOISTURE BARLEY WITH SUPPLEMENT SPURS BEEF GAINS

CHICAGO--High-moisture barley, stored in a silo and put through a roller when brought out for feeding, seems to be an efficient feed for fattening steers.

In University of Minnesota research reported at the meeting of the American Society of Animal Science, high moisture barley with a special protein supplement was the most efficient ration fed.

E. C. Frederick said steers receiving such a ration averaged 2.4 pounds gain per day in one trial and 2.60 in another. Feed requirements were 797 and 793 pounds per 100 pounds gain in the two trials.

By comparison, steers fed rolled dry barley with a supplement required 831 and 817 pounds feed per 100 pounds gain in two trials. Feed requirements were that high or higher for steers receiving rolled dry barley and hay or rolled high-moisture barley and hay.

The high-moisture barley was harvested at 30 percent moisture and put in an air-tight silo. It was rolled when removed from the silo just before feeding.

The trials were conducted at the University's Northwest Experiment Station at Crookston, where Frederick is a staff member.

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62-518-pjt

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
November 23, 1962

For a.m. release Saturday,
November 24

RESEARCHERS FIND LINK BETWEEN WEANING WEIGHT, GAIN IN PIGS

CHICAGO--Selecting hog breeding stock according to growth rate after weaning can lead to heavier weaning weights in the next generation of pigs.

The finding was reported by livestock geneticist W. E. Rempel, from the University of Minnesota at the annual meeting of the American Society of Animal Science. He reported on inheritance data from records of 2,693 pigs kept at 4 stations in the Minnesota Swine Breeding project.

One of the aims of genetics research in hogs is to improve weaning weight. The heavier a pig is when it is taken from the sow, the more profitable it is, both to the man raising and selling feeder pigs and to the person fattening the animals in a feed lot.

One way to improve weaning weight would be to select gilts and boars which are themselves heavier when weaned. But Rempel and other researchers found that weaning weight and daily gain after weaning are highly correlated. The correlation coefficient was .70; perfect correlation is 1.00.

As it turns out, a breeder can expect 90 percent as much improvement in the next generation by selecting according to daily gain as he can by selecting according to weaning weight.

Here's an example. Suppose that a hog breeder can improve weaning weight of the next generation of pigs by 1.37 pounds per pig by choosing parent stock according to their weight at weaning time. If the breeder selected according to rate of gain after weaning, he could expect 90 percent as much improvement or about 1.22 pounds per animal in the next generation.

The growth rates used in the Minnesota studies were based on performance after weaning. However, a breeder could also use growth rate for the entire life of the hog.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
November 23, 1962

For release at 10 p.m.
Saturday, November 24

TYPE OF BARLEY PREPARATION MAKES LITTLE DIFFERENCE FOR LAMBS

CHICAGO--If fattening lambs are fed barley, it apparently makes little difference whether the barley is steam rolled, cold rolled, or fed whole, a University of Minnesota livestock scientist said.

Just how barley should be prepared for sheep has been an important question in recent years. In terms of feed preparation costs, steam rolling is most expensive, while feeding it whole is more economical.

In experiments with 209 lambs, type of barley had no effect on weight gains, R. M. Jordan reported at the annual meeting of the American Society of Animal Science. Also, adding citric acid, calcium or an enzyme preparation had no effect on weight gains when given with barley rations.

The research involved comparisons of different grains in finishing rations. In each case, the lambs received alfalfa-brome hay and soybean meal along with the grain. Some received barley and some received shelled corn.

Shelled corn gave the best results--about 20 percent greater gains with about 12 percent less feed per pound of gain than any of the different types of barley.

Although how barley was prepared didn't affect weight gains, lambs fed either steam rolled or cold rolled barley consumed less total feed than did lambs on shelled corn or whole barley, Jordan said.

Also studied were additions of .86 gram of calcium per lamb daily, three grams of a mixed enzyme preparation and .017 pounds of citric acid per head daily. There was only one case where these additives had an effect: added calcium increased weight gains somewhat for lambs getting shelled corn.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
November 26, 1962

*For release *
*Thurs. a.m., Nov. 29 *

U STUDENT WINS \$1,600 SCHOLARSHIP

CHICAGO-- A University of Minnesota freshman, Paul Noreen, 18, Pine City, has been named national winner of a \$1,600 college scholarship for his achievement in the 4-H forestry project.

The award was announced last night (Nov. 28) at the National 4-H Club Congress. Noreen is one of four 4-H'ers in the nation to receive an award given by Homelite, a division of Textron, Inc., Port Chester, N.Y.

Noreen is majoring in forest resources management with an eye toward a future position as forestry district director in a state department.

An eight-year member of the Harvesters 4-H Club in Pine City, Noreen has served as secretary and vice president of his club. In that time, he has been active in the forestry, conservation, dairy, junior leadership and safety projects.

The Pine County 4-H'er has made forestry pay already by producing maple syrup and cutting firewood and sawlogs. Noreen has dealt with trees in every stage of life, from planting seeds to making useful articles of wood products.

He is the son of Mr. and Mrs. Edwin Noreen.

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62-523-kmr

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
November 26, 1962

*For release *
*Wed. p.m., Nov. 28 *

NATIONAL 4-H POULTRY PROJECT WINNER FROM HOUSTON COUNTY

CHICAGO--A 4-H'er from Houston County is national winner of a \$400 scholarship in the 4-H poultry achievement program, Leonard Harkness, state 4-H Club leader at the University of Minnesota, announced today.

Gordon Sylling, 21, Caledonia, is one of six national winners of a \$400 college scholarship from the Heisdorf and Nelson Farms, Inc., Kirkland, Wash.

As state winner in poultry achievement, the Houston County 4-H'er is a Minnesota delegate to the National 4-H Club Congress where the announcement was made this morning (Nov. 28). Sylling is the third Minnesota 4-H member to win a national award of a \$400 scholarship this year. Earlier this week Milfred Cllila, Menahga, and Gary Hansen, Wabasso, received scholarship awards at Club Congress.

Sylling is a charter member of the Caledonia Rockets 4-H Club. He finds the poultry project--particularly turkeys--a profitable enterprise. He began this project in 1955 with a quarter share in a flock of 1000 birds. In the next five years, Sylling raised a small spring flock and had a large summer flock in partnership with his family.

As a six-year junior leader, Sylling has demonstrated a variety of practices to younger club members, from explaining new poultry production techniques and trimming hooves to shaping loaves of bread. Sylling has also acted as secretary and president of his local club and as president of the Houston County Federation.

Houston County honored Sylling by making him County Boys' Achievement winner for two years and selecting him for the county leadership award.

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62-524-kmr

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
November 26, 1962

For release at 8 p.m.
*Tuesday, Nov. 27 *

ROLE OF CHURCHES IN COMMUNITY DEVELOPMENT NOTED

The community organization process is a tool which churches can use in solving their own specific problems, the Institute for Town and Country Churches was told this evening at the University of Minnesota's St. Paul campus.

Otto G. Hoiberg, head of community services at the University of Nebraska, said the theological concept of the church as a divine institution does not deny the existence of the church as a social institution.

In this sense, Hoiberg said, "the church is part of an integrated social complex wherein it is expected to perform important social functions relating to morals, ethics, and human relationships in general.

"To perform these functions adequately," he continued, "the church must command its appropriate share of men's time, talents, loyalties, and economic resources.

Hoiberg noted two broad problem categories. Churches in one category, he said, have been described as suffering from "low blood pressure": declining population, economic difficulties, and a feeling of helplessness.

In the second category are churches with "high blood pressure"--illustrated, according to Hoiberg, by the fringe areas around the Twin Cities and other major urban centers. "In either situation," he said, "wise use of the community organization process is essential to adequate performance of the church's social functions.

Town and Country churches are also interested in the community organization process because of its significance for community improvement as a whole. Anything that the community and its many agencies can achieve to make life more abundant is of concern to the church. This fact leads the church into a wide variety of cooperative, community-wide endeavors relating to family life education, juvenile delinquency, race relations, housing and international relations.

Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
November 26, 1962

For release at 2 p.m.
*Tuesday, Nov. 27 *

PERPETUAL INDEBTEDNESS OFTEN JUSTIFIABLE FOR FARM BUYERS

The traditional goal of owning a debt-free farm may not be realistic for many families in years ahead, a University of Minnesota agricultural economist said today.

High capital needs, increased cash operating outlays and the relative difficulty in transferring farms nowadays may well justify "perpetual indebtedness," Sherwood Berg told clergymen at an Institute for Town and Country Churches on the St. Paul campus.

Berg pointed out that capital value of modern dairy farming set-ups often runs between \$40,000 and \$80,000. Beef-hog farms may range up to \$350,000 and over.

Average price per acre for farm land in Minnesota has increased from \$105 to \$155 since 1957. Operating cash requirements have gone up, too. In 1930, Berg said, a farmer could figure \$5 or \$6 cash expense for each 30 hours labor in producing an acre of corn. Today, it takes \$35 to \$40 cash expense for every 5 or 6 hours of labor.

The farm of today has a smaller percentage of return left over to retire debts. Before World War II, a \$6,000 gross left \$3,000 for family living and debt retirement. Today it takes a \$10,000 gross to provide \$3,000 family income.

The entire situation, according to Berg, indicates a needed change in our philosophy toward farm debts. He suggested this example of how perpetual indebtedness might work: A couple might buy a 200-acre farm in southwestern Minnesota, valued at \$300 per acre, with \$200 per acre borrowed initially.

The couple might amortize \$100 per acre in their life time, thus eventually reducing the loan to \$100 per acre. Beyond that, all that is required would be interest payments on outstanding debt. Further principal payments would be optional.

The borrowers would use their earnings over interest costs to maintain or step

(more)

add 1 -- Berg address

up production efficiency and their level of living. The lender would have a relatively riskless loan, bringing higher returns than many alternatives.

Berg said such an approach to indebtedness has worked well in Scandinavian countries. In Denmark, 96 percent of the farms are privately owned. But these owners rarely have more than 30 percent equity in their holdings.

Berg also emphasized the need for rural people to take advantage of educational opportunities. He said recent studies show that only 28 percent of the rural farm boys in Minnesota go to college, compared to 53 percent of the rural non-farm and 56 percent of the urban young men.

For girls, the figures are 26 percent of the rural farm, 37 percent of the rural non-farm and 43 percent of the urban.

Yet, census figures show that, in 1958, men with four years of college or more averaged \$9,200 per year income. That is compared to \$5,600 for those who finished high school only and \$7,000 for those with some college training but less than four years.

Only one in every seven or eight young men from farms will be able to remain on farms and make adequate incomes. But unless they are educated, these rural youths will be greatly disadvantaged in the job market, Berg said.

One of the problems, he continued, is the lack of accurate and extensive non-farm occupational information for rural youths. Urban schools often provide more vocational guidance services than do rural schools.

Also, farm or rural boys generally have lower levels of occupational aspiration.

Rural youths can capitalize on many advantages, Berg emphasized. They have a knowledge of farming, rural communities and institutions which can be coupled with professional training in an agribusiness context. "Agribusiness" is a \$100 billion industry employing 38 percent of the national labor force.

Pastors, Berg, concluded, have an important role in counseling youths in career guidance. Such counseling requires an understanding of social and economic change, an appreciation of manpower needs, and development of rural leadership in interpreting the meaning of change to citizens.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
November 27, 1962

To all counties
For immediate use

REVIEWS DAMAGE
FROM INSECTS
IN PAST YEAR

Minnesota's annual battle against field crop insects produced no outstanding villains in 1962, according to a University of Minnesota extension entomologist.

John Lofgren advises farmers to be aware of corn rootworm, corn borer, grasshopper, armyworm and to watch for insect reports. But he says no serious epidemics occurred last summer and so far none are in prospect for 1963.

Outlook for some of the important crop pests is difficult to predict, however.

Lofgren has this to say about specific insects:

CORN ROOTWORM--continues to be the insect of most concern in corn. The Northern species is most common in Minnesota, but the Western rootworm is edging into Southwest counties. State farmers treated about $1\frac{1}{2}$ million acres with aldrin or heptachlor, with mostly good results. Treatment did bring poor control in one case near Austin. While resistance has not been conclusively demonstrated, it is a possibility, since farmers have been using aldrin about 10 years. Poor results may also be due to improper placement of the insecticide.

CORN LEAF APHID--built up in some southern counties in July and August. Damage, in terms of barren stalks was practically absent. These aphids, along with English grain aphids and greenbugs, also built up on late barley in the Red River Valley but damage was not severe. Greenbugs were quite widely spread in small grain in May, but farmers found little evidence of yellow-dwarf virus which these insects carry.

ARMYWORM--showed up in scattered infestations in July and August. Some local injury to corn and small grains was reported. A few farmers sprayed their fields.

add 1 - insects, 1962

GRASSHOPPERS--did most damage, economically speaking, in Kittson and Marshall counties. By fall, infestations in the Red River Valley had declined sharply. A marked build-up occurred in sandy soil areas of Anoka, Sherburne and Benton counties.

EUROPEAN CORN BORER--showed heaviest infestations in west central counties where borer damage combined with strong winds to cause much stalk breakage. Many fields averaged over 300 borers per 100 stalks, but cool weather staved off a heavy second brood.

SWEETCLOVER WEEVIL--was heavy in new seedings in some localities. With the moisture of 1962, there may be a sharp buildup and heavy infestations next spring.

COMMON STALK BORER--was more common in corn in 1962 than for several years. Most damage was to field margins, but some marginal rows were heavily infested.

CUTWORMS--did some damage in scattered corn fields in low, wet areas of southern counties. Most damage was from the black species.

More complete data on grasshopper and corn borer infestations and predictions for 1963 in individual counties will be available this winter.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
November 27, 1962

To all counties
ATT: HOME AGENTS
Immediate release

SAFE TOYS
HELP MAKE
SAFE HOLIDAYS

Consider the safety of your children when buying them Christmas toys.

Keep in mind, too, that the toys you buy should create attitudes of safe living.

Some toys now on the market create improper safety attitudes that may be carried into adult life, Glenn Prickett, extension safety specialist at the University of Minnesota, points out. For example, there are toys that create excitement through a race between miniature cars and trains at the railway crossing. When skill or judgment fails, they crash -- to the merriment of all. What effect, Prickett asks, will such toys have upon future drivers?

Here are some questions Prickett suggests asking before you buy toys, to be sure they are safe:

- Does the electrical toy carry the Underwriters' label insuring its safety?

And are definite instructions for operation included?

- Has poisonous lead paint been used on toys?
- Do dolls and stuffed animals have button eyes that may be bitten off and swallowed by young children?
- Do metal cars and trucks have sharp corners which can cut the child?
- Is the child for whom you bought the BB gun or the .22 caliber rifle old enough to learn how to handle a gun safely?

Giving careful consideration to the safety of toys before buying them may prevent many an accident.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
November 27, 1962

To all counties
4-H NEWS
Immediate release

EXERCISE AND
WATCH CALORIES
FOR TRIM FIGURE

Want a trim figure?

Then pay attention both to exercise and the food you eat. Your exercise and physical activity will affect the amount of food you should eat to stay trim.

Energy in the body is received from food in the form of calories. You burn energy when you exercise; thus you burn calories.

Your height, weight, and body build determine the number of calories you will need to operate your body properly, say extension nutritionists at the University of Minnesota.

When you eat food that gives more calories than your body uses for energy, the excess or "left over" will be stored as extra fat. When you supply fewer calories from food than your body uses for energy, the stored fat will be used to make up the difference.

Exercise uses calories. Every action takes energy. One pound of body fat supplies about 3500 calories when it is used for energy. Here are some of the common activities and their caloric cost per minute: walking upstairs, 17.5; swimming, 10.6; bowling, 7.1; walking, 4.6; making bed, 4.6; dancing, 3.5; sitting, 1.2.

You can burn up more calories by increasing your exercise. Reduction in calories will also help you to lose weight. You can cut down the calories you use by decreasing excessive or exhausting activities.

The number of calories you use each day in addition to those spent to keep the body functioning depends on the kind of work you do and the kind of leisure-time activities you engage in.

Both degree of physical exertion required by each task or activity and the length of time spent on it determine the amount of energy used. Obviously, swimming, skiing or skating for an hour requires more calories than studying at a desk for an hour.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
November 27, 1962

To all counties
For immediate use

STAINLESS STEEL
NEEDS PROTECTION
AGAINST CORROSION

Just because it says "stainless steel" on the label of that bulk tank, milker pail or home cooking ware doesn't mean you can forget about corrosion.

Stainless steel does resist conditions that corrode other metals, but it isn't entirely stainproof, according to Vernal S. Packard, extension dairy products specialist at the University of Minnesota.

Here are some things that influence corrosion of stainless steel:

1. Improper use of cleaners and sanitizers. Use chemical agents strictly according to label instructions--especially in terms of quantity, temperature of solution and duration of exposure to equipment. Whenever using an acid treatment, rinse the equipment first. After acid treatment, neutralize with an alkaline solution, then use a hot water rinse.

If the equipment is clean, a minimum amount of sanitizer will kill what bacteria are left. If the equipment is dirty and has even a thin layer of milkstone or water hardness deposit, you can't sanitize it adequately even with heavy amounts.

Hard water is a source of several chemicals that cause corrosion. It may also destroy detergent action. Packard advises, shop around for the right cleaner for your water or install a softening device, if necessary. Then keep equipment dry, to slow corrosive action.

2. Action of unlike metals. Corrosion may result when two different metals are in contact. This means you have to be aware of the particular kind of stainless steel you're using. For example: don't use "white" metals with stainless

add 1 - stainless steel

steel or magnetic "400" series stainless steels with nonmagnetic "300" series.

Cleaned-in-place pipelines should be made from steels of similar series. Also, don't use tops of bulk tanks or vats for tool storage.

3. Harsh abrasives. Scratching stainless steel removes the protection of its natural oxide film. Then pitting corrosion results. Never use steel wool or metallic sponges to scrub stainless steel. Fiber brushes and sponges are okay for removing dirt when the equipment has been kept clean.

Stray electric currents from improper or frayed wiring can also cause pitting corrosion. Good grounding is a must.

Packard lists four main kinds of stainless steel. First is the martensitic chromium steels with high load and shock strength, but low corrosion resistance. This metal is often used for knives, blades, mill parts, nuts and bolts. Type 410 is a typical example.

Second type is the ferritic chromium steel such as type 430, and used in trim, moulding, counters and exteriors. Third is the austentitic chromium-nickel alloys, such as the 300 series commonly used in milk processing and handling. This type has a high degree of corrosion resistance.

Fourth is the precipitation-hardenable stainless steel, such as that used in shafts, pistons, bearings, bolts and nuts.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
November 27, 1962

To all counties
For immediate use

F A R M F I L L E R S

Laying hens need lots of light--if they are to stay on the job through the winter. For top production, they need 13 to 14 hours continuous light daily, according to Bob Berg, extension poultryman at the University of Minnesota. Light intensity is important too. That means using artificial light as a supplement on cloudy, overcast days.

* * * *

For lamb feeders: If you're feeding barley, it apparently matters little whether the barley is steam rolled, cold rolled, or fed whole. In recent University of Minnesota experiments, type of barley had no effect on lamb weight gains. Also, adding citric acid, calcium or an enzyme preparation had no effect on gains when fed with barley rations. However, adding calcium increased weight gains somewhat for lambs getting shelled corn.

* * * *

One key to bigger pig litters: Boost the amount of feed for sows and gilts starting about two or three weeks before breeding. Use a well balanced ration. They should get about as much as they will eat. But reduce feed again soon after breeding, advises Ray Arthaud, extension livestock specialist at the University.

* * * *

Minnow buckets might be one of the things dairymen are looking for--besides for going fishing. Research men at the University's Crookston Experiment station have been testing utensils for ability to keep the udder-washing solution warm during milking. The covered polystyrene-lined pails--like those sometimes used for minnows--came out better than metal pails. The lined pails kept solution and wash cloths up to 110 to 120 degrees, even with barn temperatures as low as 45 degrees.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
November 27, 1962

To all counties
For immediate use

DEATH OR ILLNESS
CAN FOLLOW
THIN ICE SKATING

Most folks don't like the idea of an ice water bath even in the shelter of a warm bathroom.

But many youngsters and adults during this season risk such baths out-of-doors in below freezing weather by venturing on too thin ice.

Glenn Prickett, extension safety specialist at the University of Minnesota, says a frigid dunking is the least that can happen when a skater or slider goes through thin ice. If you happen to go through in deep water you might slide under the ice with practically no chance for rescue, he says. And even if you do manage to stay afloat in the hole, rescue takes time and careful effort if the rescuers are to avoid breaking through the ice themselves.

Shallow water break throughs, while less dangerous in terms of drowning have the hazard of cold and pneumonia from exposure, Prickett says.

He warns parents to caution youngsters in particular about the dangers of thin ice. The fun and excitement of "daring" to venture on rubbery ice can't balance the danger and tragedy of just one "break through" where death or sickness results.

In cities, Prickett says, park officials keep an eye on the ice and post notice when it is safe to skate and slide.

In the country and smaller towns, parents should themselves check the ice on ponds and streams before permitting youngsters to venture on it. Best place to check ice, Prickett says, is several feet from shore.

add 1 - death or illness follows thin ice skating

Checking can safely be done, he says, if a wide, long board is first laid on the ice and the checking is done from its safety.

Even if ice is thick enough for safety, springs in lakes and swift rapids places in streams, can cause thin ice even late in winter.

"You can't be too careful where thin ice is concerned," Prickett concludes. "Skating is too much fun to risk the tragedy which can result from an ice break through."

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul I - tel. 647-3205
November 30, 1962

Immediate release

EXTENSION CONSUMER MARKETING SPECIALIST RETIRES

A University of Minnesota staff member who has helped consumers make better use of their food dollars will retire December 31.

As extension consumer marketing specialist for 13 years, Mrs. Eleanor Young Loomis has kept homemakers informed about good food buys and ways of getting the most nutritional value for the money they spend.

Each week for those 13 years Mrs. Loomis has shopped at grocery stores and supermarkets, gathering information on new foods, price trends and good buys for the week. She passes this information on to consumers through a weekly radio program on KUOM, through talks to groups of homemakers and through a newsletter which is distributed twice monthly to more than 2,000 home economists, educators, social workers, retailers and press, radio and TV personnel. She has broadcast approximately 600 radio programs on food buys over KUOM. Frequently, too, she has appeared on local television programs.

Active in professional organizations, Mrs. Loomis has been president of the Minnesota Home Economics Association, an organization of more than 300 home economists, 13 state college clubs and 12 homemaking clubs. She has served as state president of the alumnae group of Phi Upsilon Omicron, professional home economics sorority, and as regional councilor for that organization.

Mrs. Loomis began her career with the University of Minnesota Agricultural Extension Service as a home agent in Winona County. For three years she was a state 4-H club agent and for two years an extension agent in Hennepin County. Before joining the University staff she had been a home management supervisor in Carlton County for the Farm Security Administration and had owned and managed a tea room in Omaha, Nebraska.

An inveterate traveler, Mrs. Loomis plans a trip to the Orient in early 1963. She went around the world last spring and in other travels has visited Hawaii, Europe South America and most areas of the United States.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
November 30, 1962

Immediate release

MINN.-WIS. FRUIT GROWERS TO MEET IN WINONA

The 16th annual meeting of Minnesota and Wisconsin fruit growers will be held at Hotel Winona in Winona Dec. 10 and 11.

Sponsors of the event are the Minnesota Fruit Growers' Association, the Wisconsin State Horticultural Society, the University of Minnesota and the University of Wisconsin.

The meeting will begin at 9:30 a.m. Monday, Dec. 10, and will conclude at noon Dec. 11, according to J. D. Winter, secretary of the Minnesota Fruit Growers' Association.

Featured speaker at the first day's sessions will be A. Lloyd Ryall, chief of the Horticultural Crops Branch of the U. S. Department of Agriculture, Beltsville, Md. He will discuss measurement and maintenance of apple quality.

Banquet speaker Monday evening (Dec. 10) will be Gordon Closway, executive editor of the Winona Daily News who will talk on "Our Defences in NATO Countries." Golden Apple awards will be presented at the banquet to outstanding growers by the Minnesota Fruit Growers' Association.

Topics to be considered during the two-day meeting will include the apple market news program, soils in relation to orchard management, marketing services for Minnesota growers, trends in grading and packaging of apples, apple varieties, fireblight and mite control and proposed pesticide legislation in Wisconsin. Speakers will be staff members of the University of Minnesota and Wisconsin and of Departments of Agriculture in the two states.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
November 30, 1962

Immediate release

FINAL DETAILS COMPLETE FOR SOILS AND FERTILIZER SHORT COURSE

More than 500 fertilizer industry representatives, county agricultural agents, vocational agricultural teachers and farmers will attend a Soils and Fertilizer Short Course Dec. 10 on the St. Paul campus of the University of Minnesota.

The session will feature a morning session on soil management and fertility research and an afternoon session on role of efficiency in times of surplus, according to Curtis Overdahl, extension soils specialist and program chairman.

Morning topics include soil test correlation studies, field experiments with zinc on corn, dry blending of fertilizers, nitrogen and phosphorus in starter fertilizer, and management of soil water, air and temperature with tillage.

Afternoon talks will cover yield prospects for the future on certain types of soils, impact of efficiency on food production cost and consumer prices, and emphasis on production efficiency.

Speakers include extension and research men from the St. Paul campus, and other Universities, county agents, and representatives from the Minnesota Department of Agriculture and the Tennessee Valley Authority and the fertilizer industry.

Guest speakers will be William E. Larson, U.S. Department of Agriculture researcher from Ames, Iowa; George Smith, soils department head at the University of Missouri; and Gordon L. Berg, editorial director of County Agent Vo-Ag Teacher and Farm Chemicals magazines, Willoughby, Ohio.

Group discussions following the early afternoon session will cover soil management for alfalfa production, fertilizer materials, soil management for corn and soybeans, and lime use in Minnesota.

The annual Minnesota Fertilizer Industry Association will hold its annual dinner in the evening, in conjunction with the Short Course, and will conduct a business meeting the following morning.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
November 30, 1962

For release at noon,
Monday, Dec. 3.

RESULTS OF 1962 WEED CONTROL DEMONSTRATIONS REPORTED

How weed chemicals fared in some 130 on-the-farm demonstrations around Minnesota last summer was reported this morning at the North Central Weed Control Conference in St. Paul.

Harley Otto, extension agronomist at the University of Minnesota, said the weather had a lot to do with 1962 results.

In corn, Randox and Randox-T both gave poorer results than in previous years, partly because of high rainfall which washed these particular chemicals below the weed seeds.

But while weather hindered some chemicals, it helped others. Atrazine gave better results than usual; this particular chemical, Otto said, needs plenty of water to carry it to top soil layers where weed seed germinate. Soil particles hold it in place and keep it from washing down. As a result of heavy 1962 moisture, lower rates of atrazine did well.

All these chemicals were used at recommended rates after corn was planted but either before it came up or shortly afterwards.

Also compared, Otto said, were granular and wettable powder forms of chemicals, the latter being mixed in sprays. Granular atrazine didn't perform as well as the spray form when equal application rates were compared.

(more)

add 1 -- 1962 weed control results

With Randox and Randox-T, however, results were somewhat better from granules.

Atrazine apparently can remain in the soil and damage certain crops planted the following year, such as small-seeded grains, soybeans, and legumes. However, damage can be minimized, Otto said, by using wettable powders instead of granules, a band application instead of overall spray, the lowest rate which will give weed control, and by tilling the soil thoroughly before planting a susceptible crop.

One chemical, linuron, tried for the first time in these demonstrations last summer, gave fairly good weed control in corn. However, it was inferior to atrazine and also produced some corn damage.

Demonstrations in soybeans, Otto reported, showed Randox to be effective on grasses for a short period only, again because of high rainfall. A chemical called amiben did well on both grasses and broad-leaved weeds in soybeans. Granular form of amiben was about equal to liquid.

Sodium PCP, another chemical, did a rather poor job on soybeans and gave the most soybean injury of all treatments.

This was the fifth year of these demonstrations which were conducted by county agricultural agents on land of cooperating farmers. There were 77 demonstrations in corn and 53 in soybeans.

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62-535-pjt

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 4, 1962

Immediate release

TURKEY, CRANBERRIES, CHICKEN LEAD LIST OF PLENTIFULS

Good eating is in sight for December, judging from the U. S. Department of Agriculture's list of plentiful foods for the month.

Broiler-fryers, turkey and cranberries are the featured items on the list.

The large supplies and low prices of both chicken and turkey make them best buys among meats. Supplies of broiler-fryers are expected to be as much as 20 percent larger than a year ago, reports Mrs. Eleanor Loomis, extension consumer marketing specialist at the University of Minnesota. Turkey supplies are only 5 percent down from last December.

Whether you choose turkey or chicken, you'll have no trouble getting cranberries to serve with either. This year's cranberry crop is estimated at a record 1,398,000 barrels--30 percent above average.

Fresh oranges, tart red cherries and Maine sardines are among other abundant foods for December.

The Florida orange crop is expected to reach 118 million boxes, or over 5 million boxes more than last season. In addition, the navel orange crop in California and Arizona this season is forecast at more than double its size last year. Current inventories of frozen concentrated orange juice in the hands of Florida processors are also record large.

Tart red cherries, frozen and canned, will be available in abundance for delicious holiday desserts.

Because the sardine catch this year was unusually large, canned Maine sardines will continue in plentiful supply for holiday hors d'oeuvres and other uses. They are an economical source of high quality protein, Mrs. Loomis says.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 4, 1962

Immediate release

UNIVERSITY REPORTS CHANGES IN RECOMMENDED CROP VARIETIES

The University of Minnesota has added seven crop varieties and removed three from its recommended list for 1963.

The decision was made at a recent conference of representatives of the University's Agricultural Experiment Station and Agricultural Extension Service, and the Minnesota Crop Improvement Association.

Varieties added to the recommended list were Larker and Trophy barley, Portage oats, Climax timothy and Turghai, Empire and White Wonder millet.

Removed from the recommended list were Lee wheat, Minton oats and Marine flax.

Evaluation of crop varieties is based on at least three years of tests involving maturity, yield, disease resistance, standability, plant height, winter hardiness, and feeding and market qualities. As new and better varieties are developed, old ones are removed from the recommended list.

Here is a brief look at the newly-recommended varieties:

Larker and Trophy barley, developed by North Dakota State University, are both superior to Kindred in standing ability, and are superior to both Kindred and Traill in kernel plumpness. In four years of Minnesota tests, Larker yielded slightly more than Traill while Trophy yielded slightly less. Both Larker and Trophy have been classified as acceptable to the malting and brewing industries, if marketed separately from other varieties.

Portage oats was developed by the University of Wisconsin and released in 1960. It is medium in maturity, has good test weight, is resistant to smut and most races of stem rust and has good field tolerance to leaf rust. A rather tall oat, Portage has less resistance to lodging than the shorter Mi hafer and Goodfield varieties.

Climax timothy, selected and released in Canada, is a tall, fine-stemmed, leafy variety which is 7-10 days later in maturity than common timothy and may therefore be better adapted to alfalfa-grass mixtures.

Turghai is a Proso millet; has red seeds, is used for bird and livestock feed. Feeding value for livestock is about equal to oats.

(more)

add 1 -- crop varieties

Empire and White Wonder are foxtail millet varieties. This crop is usually grown for hay or silage, but some is used in bird feeds. Empire and White Wonder are later in maturity, taller and produce more forage than other varieties tested in Minnesota.

Lee wheat was dropped from the recommended list because it is susceptible to race 15B of stem rust and has not yielded as well as other recommended varieties. Minton oats was dropped because it has lower test weight and doesn't stand as well as other varieties of similar maturity. Marine flax has been replaced with Marine-62, a similar variety with higher oil content.

Also on the recommended list for 1963 will be three varieties that were approved last year, but too late for inclusion in University publications. These three varieties are Justin hard red spring wheat and Marine-62 and Windom flax.

Following is a complete list of crop varieties recommended for planting in Minnesota during 1963:

Barley - Larker, Kindred (L), Parkland, Traill, Trophy; oats - Ajax, Andrew, Burnett, Garry, Goodfield, Minhafer, Portage, Rodney; rye - Adams, Caribou, Elk; wheat - Hard Red Spring; Justin, Pembina, Selkirk Durum: Lakota, Langden, Wells Hard Red Winter: Minter; flax - Arny, B5128, Bolley, Marine-62, Redwood, Windom; soybeans - Acme, Chippewa, Comet, Flambeau, Grant, Harosoy, Lindarin, Merit, Norchief, Ottawa, Mandarin.

Sunflowers - Arrowhead; field peas - Chancellor, Straol; navy beans - Michelite, Sanilac; millet - Proso; Turghai, Foxtail: Empire, White Wonder; alfalfa - Ranger, Vernal; birdsfoot trefoil - Empire.

Red clover - Dollard, Lakeland; sweet clover - Evergreen, Goldtop, Madrid; bromegrass - Achenbach, Fischer, Lincoln; Kentucky bluegrass - Park; sudangrass-Piper; timothy - Climax, Itasca, Lorain.

Complete information will be contained in an Agricultural Extension Service publication, "Varietal Trials of Farm Crops" now being revised for distribution through county agents.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 4, 1962

RESEARCH REPORT

LOOK FOR SHORTER POINSETTIAS FOR CHRISTMAS

Don't look for a plant psychiatrist if your florist advertises tranquilized poinsettias for Christmas.

Actually "tranquilized" plants are those that have been treated so they will be shorter and stockier, explains R. E. Widmer, associate professor of horticulture at the University of Minnesota.

The demand for lower cars and homes has extended to plants--even to the most popular Christmas pot plant, the poinsettia.

Because well grown specimens of poinsettias tend to grow tall, developing shorter poinsettias has presented a problem to researchers in horticulture.

But University of Minnesota horticulturists are coming up with a solution to the problem: use growth regulators. Success in the use of these growth regulators leads Widmer to predict that within a few years tall poinsettia plants will be far less common than they are today.

One of the growth regulators used in the Minnesota experiments--CCC, developed at Michigan State University--has been responsible for production of shorter poinsettias within the past two years.

Untreated plants in the studies grew up to three times as tall as plants treated with CCC. Foliage of treated plants was a darker green, stems were sturdier and the distance between the leaves was shorter. Plants propagated as early as July 15 and properly treated with CCC developed desirable height. The bract clusters on "tranquilized" plants were more compact and fuller appearing. The more compact cluster has the advantage of being bruised less easily when wrapped for delivery, Widmer says.

Use of CCC--now commercially available under the trade name Cycocel--should enable the grower to produce sturdy, short, attractive plants with large red bract clusters from mid-season cuttings. However, University of Minnesota studies indicate that the concentration of CCC solution applied to the soil must vary with application time, variety grown and degree of height retardation desired. Results may also vary with soil type and other cultural factors.

Widmer reports the study in the fall issue of Farm and Home Science, University of Minnesota Agricultural Experiment Station publication.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 4, 1962

To all counties
For immediate use

F A R M F I L L E R S

One place where skimping pays--Better limit the amount of milk for those calves you're holding back for herd replacement. Calves weighing more than 80 pounds at birth need no more than 8 pounds of whole milk a day, according to J. B. Williams, dairy husbandman at the University of Minnesota. Lighter calves need no more than 6 pounds. Calves may be left a bit hungry, but that may encourage them to eat more hay and grain.

* * * *

A place where skimping never pays--Hens should have a drink of water whenever they want it. And it should be just as good water as you give yourself and family, according to poultry scientists at the University of Minnesota. Water with too much mineral or other contaminants may harm chickens.

* * * *

Before farrowing: Scrub sows thoroughly with soap and water before putting them in their farrowing pen or stall. Dirt on sows' bodies, udders and feet are likely to contain worm eggs and disease organisms, according to Raymond L. Arthaud, extension livestock specialist at the University. Newborn pigs may swallow infective material as soon as they start nursing, unless the sow has been sanitized.

* * * *

From box cars to hoppers. Those box cars which have been standard railway carriers of grain may be replaced by covered hopper cars. The U. S. Department of Agriculture says hopper cars have several advantages. One is ease of unloading. Another is a carrying capacity of up to 3,000 bushels of grain--at least a third more than usual capacity of a box car.

* * * *

Haven't taken soil samples yet? Better take advantage of the still-unfrozen ground, says Lowell Hanson, extension soils specialist at the University. Send the samples to the testing laboratory. Then you'll get a report in plenty of time for next spring's crop.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 4, 1962

To all counties
For immediate release

ECONOMIST VIEWS
5-YEAR OUTLOOK
FOR AGRICULTURE

The next five years may bring more stability to agriculture, with smaller surpluses and production more in line with what consumers will buy.

That prediction comes from James App, extension economist at the University of Minnesota.

App makes this prediction in spite of the fact that total farm output is likely to increase by some 6 to 7 percent in the next 5 years. However, that increase in output is likely to be less than the increase in population, meaning output and use might be more nearly in balance.

However, certain commodities such as dairy products and cotton may still be on the surplus list by 1967, unless we have some new programs.

App bases such predictions on several assumptions. These assumptions include continued feed grain and wheat programs, no major wars, population growth of about 1.5 percent yearly, further gains in productivity, strong foreign aid programs and no major economic recessions.

Will dairy surpluses keep building up? Yes, says App, unless we find workable ways of reducing output or expanding domestic and foreign consumption of dairy products. There may also be a problem with cotton. The present program of supporting cotton prices $8\frac{1}{2}$ cents above world levels can mean increased competition from synthetic fibers and imported cotton goods.

For feed grains, App says, continued liquidation at the rate of the past year would about bring supplies in line with needs in the next two years. Wheat supplies are likely to come into line with normal levels within 5 years.

add 1 - App

If we can get rid of excessive stocks and bring production into balance with demand, App says, we can expect more stability in agriculture with rising per capita incomes for farmers. This process would be helped by continued expansion of the domestic and foreign market, by further declines in numbers of farms and farm people and further gains in farm efficiency.

The longer-term export outlook is encouraging for agriculture, according to App. In post-war years, world trade in farm products has increased faster than world population or world agricultural production. This is in spite of agricultural expansion programs in most underdeveloped countries and a worldwide trend toward self-sufficiency in food supplies.

The U.S. share of world trade expansion has increased, particularly since 1954-55. And assuming a continued strong demand in advanced countries and an active program under Public Law 480, the U.S. should maintain its share of foreign trade.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 4, 1962

To all counties
For immediate use

WINTER TREATMENT
HELPS STOP
CORN ROOTWORMS

If you aim to plant corn next spring in a field that raised corn in 1962, you can bank on some rootworm troubles--unless you use a soil insecticide.

If you wish, you can make the treatment this winter, according to John Lofgren, extension entomologist at the University of Minnesota. Then the job will be done with when planting time rolls around.

Lofgren says aldrin or heptachlor granules may be applied to level, fall-plowed fields. You can use a tractor-drawn granule applicator, if you wish. Or you can mix the insecticide with a broadcast fertilizer application.

Still another way is to spread the insecticide by airplane. No matter how it's applied, correct rate is 1 to $1\frac{1}{2}$ pounds actual ingredient per acre.

Treatment should be made when the temperature is under 45 degrees, Lofgren says. If the job is done this winter, the field should then be disked early in the spring.

There's more information in a fact sheet on "Controlling Corn Rootworms." The county extension office has copies.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 4, 1962

To all counties

4-H NEWS

GIVE OF YOURSELF
FOR HAPPY HOLIDAY

As Christmas time approaches, are you teenagers confronted with the problem of what shall I give so-and-so? Maybe it's Mom or Dad or your brothers and sisters or an aunt or grandfather.

Instead of trying to figure out how much you can spend on each person and planning their gifts within these limits, Mary Frances Lamison, state home economics agent at the University of Minnesota, suggests giving of yourself this Christmas.

A coupon guaranteeing one day's ironing would be a welcome present for Mother. You may also want to include coupons good for dusting, washing and drying dishes, baking, keeping your room clean, baby sitting, doing errands or mending. Mom would probably be pleased to open a coupon which was good for one day of shopping while you take care of a younger brother or sister.

Has Dad been complaining about washing the car or shoveling snow? Give him a coupon for these activities. Wouldn't he be glad to see a note entitling him to his favorite dessert baked by you? You can make these coupons last the whole year, too, by including some for mowing the lawn, clipping, weeding, washing windows or polishing his shoes.

Your coupons for a younger brother or sister might be a pleasant surprise for your parents, too. Younger children love to have stories read to them and Mother and Dad would appreciate your interest. An afternoon at the movies or one night of watching their favorite television program would delight a younger brother or sister.

-more-

add 1 - give of yourself

If an older brother and sister have many responsibilities around the home, give them coupons offering to help them do dishes, baby sit, mow or shovel. Older brothers find it a nuisance to darn socks, shine their shoes or wash the car. Do it for them. Repairing clothes or ironing may be good training for your older sisters, but wouldn't they be happy if you included a coupon offering to do these things for them occasionally?

Use your imagination and your families wants to give them a really happy Christmas!

-kmr-

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 4, 1962

To all counties
For immediate use

"HOST" TO RUST
DISEASE IN GRAIN
NOT ERADICATED

In spite of an intensive 30-year war against the troublesome barberry bush, that plant still grows in some areas of Minnesota.

Barberry is the alternate host of black stem rust of cereal grains, according to Herbert Johnson, extension plant pathologist at the University of Minnesota.

Some 1,290 barberry bushes were found and destroyed in the state in 1962 and there are no doubt some that weren't discovered.

Barberry first came to Minnesota as an ornamental plant more than 50 years ago, but was declared an illegal plant in 1918. By that time, however, enough seed had been spread so that complete eradication was impossible.

The black over-wintering stage of stem rust in spring releases spores that infect common barberry plants. Other spores then form on these bushes, later infecting grain crops.

Johnson says that by eradicating the barberry, we strike three blows at black stem rust.

First, the overwintering stage of the rust can't survive northern climates without going through a developmental stage on the barberry. Second, chances of new races of rust fungus developing is reduced, since most new races are produced on barberry.

Third, early rust attacks on grain are less likely. Rust from barberry generally gets an earlier start than rust blown up here from the south.

-more-

add 1 - rust not eradicated

Don't confuse common barberry with Japanese barberry, a common ornamental shrub in Minnesota. Common barberry has sawtooth leaf edges, berries in clusters of 10 to 12 and bushes up to 10 feet tall. Japanese barberry has smooth leaf edges, berries single or in pairs and seldom reaches a height of more than 3 or 4 feet.

If you suspect any bushes of being common barberry, report them to your county agent. He will then see that the proper authorities are notified for verification and removal.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 4, 1962

To all counties
ATT: HOME AGENTS

DOUBLE POTTING
SIMPLIFIES
PLANT WATERING

Regular and proper watering is an essential part of the care of the foliage plants that add a touch of green to accent your home.

But many homemakers say they often forget to water the plants or they over-water them. To simplify the task of watering, C. G. Hard, extension horticulturist at the University of Minnesota, suggests double potting.

The plant itself is potted with the usual soil mixture in a porous clay pot. Then the clay pot is placed inside a larger decorative watertight planter. The space between -- right up to the rim of the clay pot -- is filled with peat moss or shredded sphagnum moss. The top of the inner pot should be approximately 1 inch lower than the top of the outer container and at least $\frac{1}{2}$ inch of space should remain between the two pots.

Keep the moss damp, as well as the soil in the porous pot. In this way, moisture is absorbed slowly through the pot. Waterings can be less frequent, and time of watering will be less critical.

The clay pot can be removed and replaced at will or turned around to allow for variations in lighting.

If you use a decorative outer liner or planter with no drain, the bottom of the planter should be filled with 3 inches of gravel -- then add a layer of charcoal to prevent stagnation of standing water. The clay pot should never stand in water.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 6, 1962

For Immediate release

CITIZENSHIP IS TOPIC OF 4-H RADIO SPEAKING CONTEST

"How Should 4-H Prepare Me for Responsible Citizenship?"

Minnesota 4-H Club members entering the twenty-first annual statewide radio speaking contest will present their ideas on this subject in local, district and state contests.

All 4-H Club members are eligible to enter community or county radio speaking events. However, participants in the district contest must be 14 years of age but not over 21 on January 1, 1963. Previous state and reserve state champions are not eligible. Local competition is arranged under the direction of local leaders and county Extension agents. Last year over 1,100 Minnesota 4-H'ers participated.

The state champion will receive a personal award of \$200, plus \$50 to purchase books on citizenship and human relations for a local library. The state reserve champion receives an award of \$100, and \$25 for books. With the exception of state contest winners, each district champion will win \$15 and each reserve champion \$10. Awards to county champions, except those who become district champions or reserve champions, are \$5.

The contest is sponsored jointly by the Minnesota Agricultural Extension Service and the Jewish Community Relations Council of Minnesota. The awards are given by the Jewish Council.

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62-540-kmr

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 6, 1962

Immediate release

SIX WIN TRIPS TO NATIONAL CONFERENCES

Outstanding records of leadership and project achievement have won trips to national conferences for six Minnesota 4-H Club members.

Four of the young people have been selected as delegates from Minnesota to the National 4-H Club Conference in Washington in April: Nancy L. Glas, 17, Hutchinson; Sally Souther, 18, 2200 Hoyt Ave. W., St. Paul; Thomas Hovde, 18, Hanska; and Robert Gehrman, 17, 12720 Wayzata Blvd., Minneapolis.

Lillian Koskinen, 18, Cromwell, and Wayne Sommars, 18, Verndale, will receive all-expense trips to the American Youth Foundation Leadership Training Camp at Camp Miniwanca, in Shelby, Mich., next summer.

Selection as a delegate to either of these two events is considered one of the highest awards available to a Minnesota 4-H member.

The Minnesota Bankers' Association sponsors the trips to the National 4-H Conference. Ralston Purina Company, St. Louis, Mo., presents the scholarships for the Michigan camp.

The six winners are students at the University of Minnesota -- all of them freshmen except Hovde, who is a sophomore. Miss Koskinen attends the University of Minnesota in Duluth.

The young people have demonstrated their leadership ability by serving as officers and junior leaders of their local clubs and as officers on county 4-H councils. In recognition of their 4-H work in their counties they have received the 4-H key award, various leadership awards and numerous blue and purple ribbons and medals for achievements in specific projects. According to Leonard Harkness, state 4-H Club leader at the University of Minnesota, they have all excelled in project work and in demonstrations.

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62-541-jbn

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 6, 1962

RESEARCH
FEATURE

Immediate release

BLUEGRASS VARIETY DEVELOPMENT LEADS TO EXPANDED BUSINESS

ROSEAU--development of a new bluegrass variety by the University of Minnesota in cooperation with farmers and farm organizations has led to a new million-dollar-a-year business.

Park Kentucky bluegrass is returning nearly half a million dollars annually to the 150 farms producing it in this region near the Canadian border. That return amounts to some ten percent of the total crop sales in Roseau county, according to Agricultural Agent William Provance.

Besides returns to growers, the industry generates another half million dollars of business in transportation, service, and retailers' margins throughout Minnesota and other states.

Park bluegrass is the culmination of 20 years of University research aimed at providing a good cash crop for this northwestern region and a hardier turf for lawns and pastures in northern states and Canada.

Seed production has traditionally been a major farm enterprise in Roseau county. But until the late '50s, most of it concerned clover or other legumes. Some seed was being "stripped" by machines from standing wild bluegrass, but in most years, total volume was relatively small.

Park bluegrass first hit the retail market in 1958, when local growers produced 33,000 pounds certified seed and another 16,000 pounds registered seed for other growers.

Production of certified Park reached 280,000 pounds in 1959, 851,000 in 1961 and is expected to top the million mark this year.

-more-

add 1 - Park bluegrass

So important has Park bluegrass production become in Roseau county that, according to Provance, only spring wheat and oats add more to farm income as cash crops.

Production of this crop in Roseau county accounts for more than two percent of all bluegrass grown in the U.S. and roughly half of that which is cultivated. Most bluegrass--such as the common bluegrass sown in many lawns--is stripped from wild fields.

With Park, however, production is on tilled fields and harvesting is by combine.

One advantage of bluegrass as a cash crop is that the grower need not depend on bees for pollination, as he would with clover or alfalfa. Bluegrass produces seed asexually--without being fertilized by male pollen.

One of the leaders in development of the Park variety was H. L. Thomas, agronomist at the University.

Starting in 1937, research men collected samples of bluegrass sod from around Minnesota. These sod selections were broken down into individual plants, the best 281 of which were chosen for further study and selection. Each year, agronomists selected lines according to seedling vigor, total yield, percentage of crude protein, and freedom from diseases.

Work continued over the years at the St. Paul campus and at experiment stations at Rosemount, Waseca, Crookston, Morris, Grand Rapids and Duluth.

Finally, the 15 best lines were put together as one variety and tested at research stations in six other Midwest states. The new variety passed its tests with flying colors; in 1956, Park Kentucky bluegrass was officially born.

What makes Park bluegrass different? For one thing, Thomas points out, it germinates quickly. It has tough seedlings that thrive in this northern climate. It resists stem rust disease, produces vigorous mature plants and forms a heavy sod.

add 2 - Park bluegrass

Those characteristics make it a winner for both lawn and pasture.

In one trial, for example, plants of Merion bluegrass suffered 50 to 100 percent loss to stem rust, while Park was barely touched.

Commercial seed also stood up well against rust. However, Park was better than the commercial lots in many other ways. Commercial lots are not certified, leaving no way to check genetic origin and no guarantee that the seed is adapted to a given region.

Park turned out to be a natural for the cool summers and glacial lakebed soils of Roseau county. Growers can get up to 200 pounds seed and 1-2 tons of top quality forage per acre after the seed is harvested. Protein content of this forage runs 15 to 18 percent.

An example of how Park is raised comes from Everett Helmstetter and his brother, George, who farm about 30 miles from Roseau. They sow the Park seed either in spring with a companion crop, or alone in the fall.

They harvest the seed the following July and store it on the farm until sending it to Roseau for processing. After combining, they put up the straw as forage, then allow the stubble to regrow and provide pasture for their 50 beef cows. That way, the field does double duty.

Everett is a member of the Northern Minnesota Bluegrass Growers association formed shortly after Park was introduced to aid in processing and marketing of the seed. This organization works closely with the Minnesota Crop Improvement Association, which handles seed registration and certification.

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62-539-pjt

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 7, 1962

For release at 3 p.m.
Monday, Dec. 10

FERTILIZER HELPS EVEN IN HIGH-FERTILITY SOILS

Even where a field yields 100 bushels or more corn without fertilizer, some extra plant food can still put more dollars in the farmer's pocket.

At least, such is the case in some of the Fayette and similar soils of southeastern Minnesota, persons attending the Soil and Fertilizer Short Course at the University of Minnesota were told today.

John Grava, supervisor of the University's soil testing laboratory, reported results of fertilizer trials on three farms last summer--two in Goodhue and one in Wabasha county.

On each of these farms, corn yields went over 100 bushels even where no fertilizer was used. These levels were due to extremely favorable weather, high plant populations (20,000 or more per acre), weed control, liming, and good management.

Yet, fertilizing brought profitable increases per acre in every case. For example, soil on one farm showed, in soil test results, a phosphorus availability level of 58 pounds per acre. This is a very high level. Nevertheless, 30 pounds phosphorus per acre (40 in broadcast treatment, 40 in row application) increased yields another 19 bushels per acre.

Similarly, it paid in each case to add 80 to 120 pounds potassium per acre and 60 to 120 pounds nitrogen per acre, even though these soils showed medium to high potassium levels and release much soil nitrogen for plant growth.

Purpose of these trials, according to Grava, was to gain information which can be used in recommending fertilizer for specific kinds of soil with specific fertility levels. He said that for most farmers, the question of whether to apply fertilizer has long been settled. The main questions, he concluded, are how much and what kind.

The trials were conducted cooperatively by Grava, extension soils specialist, Lowell Hanson, farmers, and county agents.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 7, 1962

For release at 3 p.m.
*Monday, Dec. 10 *

NITROGEN IN FERTILIZER BOOSTS PHOSPHORUS UPTAKE

Corn apparently gets more from phosphorus which farmers apply if the fertilizer also contains some nitrogen.

University of Minnesota soils research men today reported studies in which a combination of nitrogen and phosphorus boosted phosphorus content of plants to 5 times the level where phosphorus was applied alone.

A. C. Caldwell and Robert Blanchard made the report at the annual Soils and Fertilizer Short Course on the St. Paul campus. The studies were made near Lamberton, Waseca and Red Wing.

Nitrogen was applied as ammonium nitrate and the phosphorus was in superphosphate form. The researchers checked phosphorus content by analyzing whole plants when they were a foot to 18 inches high, and by taking leaf samples at tasseling time.

Applying nitrogen and phosphorus together made big yield differences, too. The combination resulted in yields which ran 50 bushels per acre above phosphorus alone.

This "interaction" between different plant nutrients applies mainly to nitrogen and phosphorus. For example, adding potassium to the fertilizer increased the potassium content of corn plants, but had no effect on phosphorus content.

Such research, Caldwell and Blanchard said, shows that corn starter fertilizer should contain both nitrogen and phosphorus in a single mixture--rather than applied separately. Previous research has shown that the ammonium form is the most effective nitrogen source--meaning either a fertilizer salt such as diammonium phosphate or ammonium nitrate or ammonium sulfate.

In general, there should be one part of nitrogen for every four parts of phosphorus or more, the researchers said.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 7, 1962

*For release at 2 p.m. *
*Monday, Dec. 10 *

ZINC MAY BE NEEDED IN SOME MINNESOTA SOILS

Zinc looks like a profitable new fertilizer ingredient for corn in some areas of Minnesota, persons attending the annual Soils and Fertilizer Short Course at the University of Minnesota were told today.

Zinc deficiency since 1961 has proved to be a major corn problem in certain soils of west central Minnesota. The problem is most acute in low-lying areas on high-lime peat or mineral soils, and especially on fields recently drained. The problem isn't necessarily a zinc shortage. But as lime content of fields increases, plants find it harder to take up zinc.

Research on the problem was reported by Orville Gunderson, extension soils specialist in western Minnesota. He conducted some field trials last summer in Meeker and Kandiyohi counties, in cooperation with the U. S. Department of Agriculture research station at Morris.

One approach to the problem is to mix zinc with nitrogen fertilizer, or at least place the two near each other next to the corn plant. Reason for this is that nitrogen fertilizer leaves a bit of acid residue, which helps make the zinc more available to plants.

Gunderson tried three treatments on fields where zinc deficiencies were known to exist. One treatment was a plow-down of 5, 10, 20 or 40 pounds zinc per acre. The second was a band application of both nitrogen and zinc sulfate (at 10 pounds zinc per acre) at planting time. The third was a treatment of zinc chelate on the corn seed.

Where zinc was plowed under, corn yields went up by an average of 13 to 15 bushels per acre, with the 10-pound rate giving good results. However, the band treatment of nitrogen and zinc was less effective and the seed treatment had the least effect of all. These, however, were only preliminary results and only one rate (8 ounces per bushel) was used.

Gunderson concluded that plowing down zinc sulfate may be practical where there is definite evidence of its need. The ten-pound rate would cost about two or three dollars per acre.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 10, 1962

* For release at noon *
* Tuesday, December 11 *

BARBARA CARSON NAMED CONTEST WINNER

Barbara Carson, Scott county home agent, today (Dec. 11) was named winner of the 15th annual University of Minnesota Agricultural Extension Service Information contest.

Runner-up honors went to Paul Stelmaschuk, Pennington county agent, and honorable mention to Mary Ann Scharf, Stevens county home agent, and Audrey Blum, Big Stone county home agent.

They were honored for outstanding work with press, radio, visual aids, and direct mail in their county educational programs. The awards were made as part of the annual Agricultural Extension Service conference being held on the St. Paul Campus, Dec. 11-13.

First place winners and their counties in the individual divisions of the contest were:

PRESS: George H. Gehant, Jr. Lac qui Parle, over-all; John Ankeny, Watonwan, column; Gehant, series of articles; and Eugene Williams, Rice, single articles.

RADIO: Barbara Carson, over-all, interview and radio talk; Eugene Ormberg, Nobles, interview, men; and Kenneth Just, Wilkin, radio talk, men.

DIRECT MAIL: Mary Ann Scharf, over-all, business letter and circular letter; Harold Rosendahl, Norman, 4-H newsletter; and John Halvorson, Yellow Medicine, other newsletter.

VISUAL AIDS: Barbara Carson, over-all and teaching device; Mabel Smilanich, No. St. Louis, series of four black and white pictures; Deane H. Johnson, Clay, series of two black and white pictures and Harriet Bakehouse, Steele, color slides.

add 1 - contest winners

Others recognized for outstanding information work include John Peterson, Sibley; Carolyn Overby and David Johnson, Yellow Medicine; Erven Skaar, Isanti; Winton Fuglie, Kittson; and Donald Vollman, Pine.

Blue ribbon winners in the respective sections and their counties were:
(Note--counties included only first time persons listed.)

COLUMNS: John Halvorson, Yellow Medicine; Clayton Grabow, Mille Lacs; Howard Grant, Meeker; Judith Nord, W. Otter Tail; Harriet Bakehouse, Steele; Margaret Olson, Sibley; and Carolyn Overby, Yellow Medicine.

SINGLE ARTICLE: Florence Benton, Nobles; Paul Stelmaschuk, Pennington; John W. Peterson, Sibley; Donald Petman, Koochiching; Carolyn Overby; James Johnson, Faribault; Harlan Johnsrud, Faribault; Harlie Larson, Houston; George Gehant, Jr., Lac qui Parle; Shirley Lake, Wadena; K. Russel Bjorhus, Grant; Mabel Smilanich, No. St. Louis.

SERIES OF STORIES: Erven Skaar, Isanti; Ruth Johnson, Clay; John Peterson, Winton Fuglie, Kittson; Eugene Williams, Rice; George Saksa, Itasca; and Donald Petman.

CIRCULAR LETTER: Eugene Williams; Kenneth Just, Wilkin; Shirley Lake Agnette Duncan, Isanti; Florence Benton; and Naomi Radman, Houston.

4-H NEWSLETTER: John K. Ankeny; Winton Fuglie; Audrey Blum; Francis Januschka, Houston; David Johnson, Yellow Medicine; Harriet Bakehouse; Margaret Olson; John Peterson and Carolyn Overby.

SPECIAL NEWSLETTERS: Naomi Radman; Carolyn Overby; Audrey Blum; Margaret Olson; Curtis Churness, Becker; and Barbara Carson.

BUSINESS LETTER: Harold Rosendahl; Laura Duerst, Pennington; Audrey Blum; Carolyn Overby; Erven Skaar; Albert Page, Itasca; James Johnson; Clayton Grabow; David Johnson; George Saksa; John Peterson; LaVaun R. Neeb, Dodge.

RADIO INTERVIEW: Mary Ann Scharf; Paul Stelmaschuk; James Hoffbeck, Aitkin.

add 2 - contest winners

RADIO TALK: Harriet Bakehouse; Mary Ann Scharf; Donald Vollman, Pine; and Henry Hagen, Cass.

OTHER RADIO: Donald Vollman and Axel Hansen, Jr., Pine.

SERIES OF FOUR BLACK AND WHITE PICTURES: Paul Stelmaschuk; Barbara Carson; Tim C. Main, No. St. Louis; and Clayton Grabow.

SERIES OF TWO PICTURES: Paul Stelmaschuk; Barbara Carson; Kenneth E. Just; and Francis Januschka.

COLOR SLIDES: Winton Fuglie; Harlie Larson; Erven Skaar; John Peterson; Barbara Carson; Dennis Kluver, Winona; Floyd Colburn, Itasca; David Johnson; and E. E. Bjuge and Ella Kringlund, Sherburne.

TEACHING AIDS: John Halvorson; Paul Stelmaschuk; Carolyn Overby; Albert Page; La Vaun Neeb; and Audrey Blum.

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62-545-hbs

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 10, 1962

*For release at 10:30 a.m. *
*Tuesday, Dec. 11 *

MORE COLLEGE TRAINING NEEDED FOR RURAL YOUTH

More of the farm youths in Minnesota are going to college nowadays, but they're still a long way behind their urban cousins.

As a result, many will be unable to compete in the job market in years ahead, Keith McFarland, director of resident instruction for the University of Minnesota Institute of Agriculture said today. Furthermore, he added, many otherwise competent rural youths will be unqualified for the many professional opportunities now available in the agricultural industry.

McFarland spoke before the annual meeting of the Minnesota Agricultural Extension Service.

He cited a recent Student Counseling Bureau study indicating that 82 percent of the top 17 percent of Minnesota rural farm youths, in terms of academic aptitude, were going on to college. That's compared to about 61 percent of this top group in 1951.

Yet, a sharp discrepancy remains between rural farm and city youths. Latest figures show that only 28 percent of all rural farm boys graduating in 1961 in Minnesota entered college the following year after leaving high school. For metropolitan boys, the figure was exactly twice as high--56 percent.

For women, the comparable percentages were 26 percent of the rural farm high school graduates and 43 percent of those from the largest urban areas. Rural non-farm men and women are between the two extremes.

The discrepancy in education-seeking is more pronounced as high school performance decreases. Considering only the top 10 percent of high school achievers, McFarland said, about 9 in 10 go to college regardless of where they're from.

But among students who finished near the middle of their high school classes (between the 50th and 60th percentiles) only 35 percent of those from farms go to college, compared to 60 percent of those in metropolitan areas.

While percent of farm youths going to college is increasing somewhat, the total

(more)

add 1 -- McFarland talk

number from which such students are drawn is going down. In 1940, there were some 35,000 rural farm Minnesotans between ages 18 and 19. The number dropped to 20,205 in 1950 and to 12,385 in 1960.

As a result of the shrinking number of farm youths, McFarland said, colleges are facing difficulties in meeting demands for professionally-trained graduates in agriculture. Traditionally, agricultural colleges have drawn their students largely from rural areas.

McFarland said agricultural extension personnel are not expected to be trained counselors for post-high school training. But they should, he added, be ready to interpret the changing social and economic situation to parents and youths themselves, and give some support to guidance programs.

What accounts for lesser interest in post-high school education in rural areas? One reason is tradition; in many areas, a relatively low value has been placed on higher education among farm people, an outcome of the cultural pattern brought to Minnesota when its rural areas were settled.

A second reason, McFarland said, stems from lower levels of formal education of parents in rural areas. Slightly fewer than 3 percent of rural farm parents have had any college experience, compared to about 22 percent of metropolitan and rural non-farm parents.

Third, according to McFarland, rural farm parents and students are still often reluctant to accept the need for out-migration--in spite of the fact that only one rural farm youngster in five nowadays can expect to remain in farming. Such reluctance often leads to inadequate high school course programming and to delay and indecision.

Finally, McFarland pointed to a tendency for persons entering farming to have a lesser interest in post-high school education.

McFarland said the need for college-trained students in agribusiness means the College of Agriculture, Forestry and Home Economics must attract superior urban students as well as more from rural areas.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 11, 1962

To all counties
A Farm and Home Research Report
For immediate release

U INTRODUCES
ORNAMENTALS

A lavender garden chrysanthemum, a flowering crabapple and a pink floribunda-type climbing rose have been developed by University of Minnesota horticulturists at the University of Minnesota's Agricultural Experiment Station especially for northern climates.

They will be available from Minnesota nurseries for spring planting.

The chrysanthemum, named Tenstrike, produces a vigorous, stiff-stemmed, high-mound type of plant topped by 1½-inch bright lavender, fully double flowers. It is especially useful for a mass color effect in the garden. The formal looking plants reach a height of 15 to 18 inches and a spread of 30 inches when grown in full sun. Blooming usually begins by mid-August.

Vanguard, the hardy, upright crabapple, produces deep pink buds which open to large, showy single flowers of bright rosy pink. The young foliage has a reddish cast but soon turns a bright green. Showy red fruits make the tree attractive in autumn and provide food for birds during winter.

The tree is upright in habit of growth with narrow crotches. After several successive crops of fruit, the top spreads out slightly, producing a vase-shaped tree at maturity.

Viking Queen, the double pink floribunda-type climbing or pillar rose, produces clusters of fragrant flowers 3 to 4 inches in diameter from late June until mid-October. Blooms are borne in clusters of five or more flowers. Flower color is a clear medium to deep pink that does not fade. Petals remain on the blossom even after it has passed its prime.

Foliage of the Viking Queen is a glossy deep green that appears to be highly resistant to black spot and mildew diseases.

New plants of Viking Queen will make 6 feet of growth in one season. The numerous canes which develop during the season require a supporting pillar or trellis. Flowers are borne on both lateral and terminal growth.

The plant has demonstrated unusual hardiness, but some protection is advisable during winter in northern climates.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 11, 1962

To all counties
For immediate use

CHLOROSIS CURE
IS POSSIBLE
BUT EXPENSIVE

A yellowing problem in soybeans and other plants can be cured all right--but at a dear price where treatment of a whole field is concerned.

The problem is the iron-deficiency chlorosis that occurs in many high-lime soils of western and northwestern Minnesota. The lime ties up the soil iron, keeping it in a chemical form which plants can't use. As a result, plants turn yellow, may go down in yield or even die.

Chlorosis occurs in soybeans, flax, and many other plants, including some flowers, ornamentals, fruit trees and other plants.

One answer to the problem is iron chelates--compounds which hold iron in a form available to plants. University of Minnesota soils men have found that adding chelates to the soil, at one pound of iron per acre, can correct the yellowing from chlorosis and thereby prevent yield loss.

Such treatment, however, may cost \$30 or more per acre.

Another approach is to spray a chelate solution on the leaves, a procedure studied recently by D.P. Penner and A.J. Linck, botanists at the University.

Penner and Linck used solutions of chelated radioactive iron so they could trace its movement inside the plant. They sprayed such solutions on leaves of chlorotic soybean plants and on healthy plants, and found the yellowing could be cured.

As with the soil treatment, the foliar spray would be highly expensive on a field basis. However, soil treatments or sprays might be feasible for cases where

add 1 - chlorosis cure

chlorosis occurs in ornamental plants around the yard and garden; a home owner or gardener might be quite willing to spend a dollar or so to save a prize shrub.

Some iron chelate solution materials are now available. There are also at least two materials which can be added to the soil. They are APCA-Fe, also called CHEL-138Fe and DTPA-Fe, also known as 330Fe. The second material is cheaper than the first, but requires almost twice as high a treatment rate.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 11, 1962

To all counties
For immediate use

MONOXIDE GAS
DANGER EXISTS
AROUND FARMS

Rattlesnakes and vipers are pretty scarce around farms these days, but an even deadlier menace is there all the time--carbon monoxide gas.

Whenever you warm up the car or tractor inside a building, you're running a risk of monoxide poisoning, warns Glenn Prickett, extension farm safety specialist at the University of Minnesota. His advice: keep the doors open or back the machine outside for the warmup.

Carbon monoxide gas gives you no warning. You can neither see, smell nor feel it. But it's lethal. It first makes you drowsy, then unconscious, and will kill you if you don't get fresh air.

If you find such asphyxiation occurring, move the person to fresh air immediately. Start mouth to mouth resuscitation if the person has stopped breathing.

Carbon monoxide poisoning can occur in many ways. One place is a parked, running automobile, especially one with a defective exhaust system. In fact, Prickett says it's a good idea to keep a window lowered for air circulation even when driving a car.

Carbon monoxide gas may be produced by stoves or furnaces stoked for the night and too sharply dampered. Better be sure the home has plenty of air circulation to prevent asphyxiation.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 11, 1962

To all counties
For immediate use

CORN, SOYBEANS
MOVE NORTH
IN MINNESOTA

A dramatic march to the north by corn and soybeans in recent years has led to some sharp changes in Minnesota's crop patterns.

A University of Minnesota agricultural economist, Philip M. Raup, points out that in the past 20 years:

- * Corn acreage harvested has increased more than 50 percent.
- * Soybean acreage has increased 12 times, now accounting for 10 percent of all state cropland.
- * Rye acreage has dropped to little more than a tenth of its 1940 level, flax to about a third, winter wheat to a fifth.
- * Spring wheat acreage decreased 30 percent, while oats acreage increased until 1954, but has since dropped back to 1940 levels.

Most of the increase in corn and soybean acreage was at the expense of other grain crops--rather than hay. In southern counties, harvested hay crops are as important as 20 years ago. There has been some marked decline in hay in northern counties, however.

Corn's northward movement did not upset the ranking of counties much in terms of corn predominance. As corn went north, corn acreage also expanded in southern counties. In 1939, '49 and '59, 18 counties accounted for half the total acreage of corn for grain.

One thing about corn hasn't changed much, and that's the northern limit. This boundary, extending roughly from Duluth to Crookston, is largely determined by probabilities of killing summer frosts. There is less corn north of this line now than in 1939, except in the Red River Valley.

add 1 - northward movement

Raup adds, however, that corn has pushed more tightly against the northern frost limit. That means you find a sharp decline in corn acreage in less distance from south to north. Example: At the southern end of Pine county, 20 percent of the cropland is in corn. At the northern end, the figure is 1 percent.

By 1959, more than 30 percent of the cropland in the southern two-fifths of Minnesota was in corn. And if you talk about all the southern tier counties except Mower and Houston, corn occupies more than half the cropland.

Soybeans, meanwhile, have moved into the same areas as corn. The heaviest concentration of this crop is in a belt running from the upper part of the Minnesota River southeast toward Freeborn county. More than 20 percent of the cropland of seven counties in that belt is in soybeans.

Raup concludes that all planning about Minnesota agriculture must take into account the nature of the cropping system resulting from these shifts.

Our land use pattern is simpler now than in 1940. A high proportion of southern Minnesota is used for corn and soybeans. Red River Valley counties continue as primarily small grain producers. Hay and oats dominate the north-central and northeastern counties.

Raup discusses these changes in crop patterns in the current issue of Minnesota Farm Business Notes, an Agricultural Extension Service publication.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 11, 1962

To all counties
For immediate use

F A R M F I L L E R S

A new look at an "old reliable": The rotary hoe has been getting some close attention from University of Minnesota agricultural engineers. One recent finding is that tapering the front of the teeth is an effective way to get more soil movement for a given operating force, or speed. Each hoe is a wheel 15 to 20 inches in diameter, with 10 to 16 teeth. It is used mostly for annual grasses and weeds.

* * * *

Zinc in fertilizer might pay off in some areas of Minnesota, especially in low-lying areas on high-lime peat or mineral soils and fields recently drained. Orville Gunderson, extension soils specialist in western Minnesota, found that zinc deficiency could be corrected by plowing under 10 pounds zinc per acre--costing about two or three dollars. The problem isn't exactly a shortage. As lime content of fields increases, plants have a harder time taking up zinc.

* * * *

A kick that pays: It's okay to move straw forward under a cow to make room for milking. But be sure to kick it back again when you finish. Dairymen at the University's Crookston and Grand Rapids stations found it makes a big difference in cow cleanliness. And that means better milk sanitation.

* * * *

Plant food nutrients team up. Corn seems to get more from phosphorus you apply if the fertilizer also contains nitrogen. In a recent University of Minnesota study, a combination of nitrogen and phosphorus boosted phosphorus content of corn plants to 5 times the level where phosphorus was applied alone. And, of course, more uptake led to more efficient production and better profits. A general rule, the researchers found, is to use one part of nitrogen for every four parts phosphorus or more.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 11, 1962

To all counties
ATT: HOME AGENTS

LIVE SAFELY
DURING HOLIDAYS

Don't let a home accident mar the happiness of your Christmas!

Fires and falls are responsible for most home accidents, according to Glenn Prickett, extension safety specialist at the University of Minnesota. He urges families to pay special attention to eliminating hazards that may cause fires or falls.

Here are his tips on preventing fires this Christmas:

- Select a fresh Christmas tree and set it solidly in a pail of wet sand or in a stand with a water container. Supply water daily.
- Set the tree away from radiators, stove and heat registers.
- Use U.L.-approved electric lights attached to an outlet that can be easily reached to disconnect it. Never place an extension cord under a rug from the outlet to the tree.
- Dismantle the tree before it becomes dry and flammable. Burn it in an incinerator, not in the fireplace, furnace or stove.
- Dispose of gift wrappings immediately and burn them in an incinerator.
- Have a U.L.-approved dry powder or CO₂ fire extinguisher available near the tree or in the kitchen.

To prevent falls:

- Keep walks and steps clear of snow and ice.
- Keep stairs clear of toys, boxes and clutter.
- Provide a place for children to play so passageways may be kept free of toys.
- Keep rugs anchored with non-skid materials.
- Use a sturdy step ladder when putting up and removing decorations both in and outside the home. Don't over-reach.
- Hold on to the handrail when carrying things up and down stairs.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 11, 1962

To all counties
4-H NEWS
Immediate release

PLANT A GARDEN
THIS WINTER

You can grow a grapefruit tree in the middle of winter when the snow is waist-deep. Sound impossible? Not according to C. Gustav Hard, extension horticulturist at the University of Minnesota.

Hard suggests making a simple indoor garden in a glass-enclosed seed flat or even in a large-size glass jar. And in addition to grapefruit, you can plant orange seeds, avocado seeds, African violets, Chinese evergreens, snake plant, mosses, grape ivy and others.

To make this terrarium garden, you will need an enclosed chamber. A garden seed flat $17\frac{1}{2}$ inches long by $11\frac{1}{2}$ inches wide and 3 inches deep makes a good container. You will also need six pieces of glass--two pieces 8 inches by 12 inches for the top, two pieces $10\frac{3}{4}$ inches by $9\frac{1}{2}$ inches for the ends and two pieces 15 inches by $9\frac{1}{2}$ inches for the sides.

Fit the glass for sides and ends into the flat. Fasten the glass at the corners with adhesive tape or masking tape. The other two pieces of glass will fit over the top. Now you have a glass enclosed chamber.

To make sure that water does not come through, line the inside of the flat with aluminum foil. Next, place about one inch of fine gravel or a crushed charcoal in the bottom of the flat. Then fill the flat with a mixture of two parts garden soil, one part coarse sand and one part organic matter, such as peat or compost. This gives you a good soil for growing your plants.

-more-

add 1 - plant garden

Select plants which grow at about the same rate and require about the same amount of sunlight. Be sure you don't overcrowd the plants. Don't let them get out of hand either.

Place your "garden" in bright sunlight, not direct sunshine. Slide the glass top back when you can see moisture collecting on the inside of the glass. Plants need ventilation, too.

You can make many interesting landscape and woods scenes with your garden, by using plants to represent trees, mosses for grass and fine pebbles for walks.

-kmr-

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 - tel. 647-3205
December 12, 1962

Immediate release

HOW ARE YOUR CHILDREN'S EATING HABITS?

If you think your pre-schooler has eating problems, the trouble may be that you've forgotten how your child grows and develops.

Many parents use adult standards to measure their children's eating habits. Charles Martin, extension family life education specialist at the University of Minnesota, points out that after a child reaches 2 years he grows slowly until he is about 9. It's important to keep this fact in mind when serving food to this age group.

Martin and Grace Brill, extension nutritionist at the University of Minnesota, suggest that parents ask themselves these questions if they are concerned about a pre-school child's eating habits:

- . Are his servings larger than he needs?
- . Do between-meal snacks take the edge off his appetite?
- . Are meals served at regular times?
- . Is the child overtired or overhungry?
- . Is the child excited and keyed-up at meals?
- . Are mealtimes pleasant times?

If you expect your child to eat more than he needs or wants, you're in for trouble. If your child snacks too close to mealtime or is scolded or punished just before or during a meal, he may find it difficult to eat.

Encourage the child to eat, but don't let the issue develop into begging or bribery, the specialists suggest. After a reasonable time, remove his plate.

Time of eating is important because small children like routine. To prevent undue hunger, move mealtime ahead or have your child eat earlier.

Prepare the child for the meal by letting him know he will soon eat. Call him in from outside well in advance and encourage quiet activities to help him calm down before eating.

If your child finds mealtime a pleasant, enjoyable time, his appetite and habits will improve. That's why it's important to avoid discussing problems or disciplining children during meals.

Other suggestions to parents are given in a new University Agricultural Extension Service publication, extension folder 220, Food for Young Children. Copies are available from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul 1 or from county extension offices. ### 62-549-jbn

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 12, 1962

*Research *
*Report *

CHEMICAL AND BIOCHEMICAL METHODS STUDIED FOR MODIFYING FARM PRODUCTS

By borrowing an idea from the stomachs of cattle and other livestock, agricultural scientists may find ways to expand uses for farm products.

University of Minnesota researchers are studying ways of using enzymes to remodel corn and wheat starches to give new substances. At the same time, they are seeking ways to make certain components of agricultural products easier for livestock to digest.

The enzymes that would be involved are the same kind that, in digestion break complex food chemicals into simple units for absorption. The problem can be attacked without enzymes, but the purely chemical approach is far too expensive and difficult.

The major stumbling block lies in what scientists call the "cellulose-lignin" complex in plants.

Cellulose contains glucose, a simple carbohydrate and nature's best energy source. Therefore, cellulose in wood and forage crops would be just as good as starch in corn and other high-energy cereal grains--if digestive agents in the animal could get to it.

However, the lignin in the complex not only provides little or no energy, but, acting as a cementing substance, it makes other food nutrients such as cellulose and hemicellulose harder to digest.

What the scientists are seeking, then, is a chemical or biochemical means of splitting the cellulose-lignin complex.

Cellulose is broken down by an enzyme called cellulase. This enzyme is produced not by the animals themselves, but by micro-organisms in the digestive tracts.

The research men reason that one way to help ruminants, pigs and chickens digest cellulose would be to add preparations of the enzyme cellulase to feeds.

(more)

add 1 -- cellulose modification

This would require a cheap source of enzyme and a means of acting upon the food with it.

Being studied now are many mold species that secrete cellulase into the medium in which they are grown. These molds can be grown at low cost on a large scale. Yields so far aren't as large as hoped, but can probably be increased.

Should a cheap source of enzyme be found, the next question is how to apply it to feed. One possible way, say the scientists, is a variation of the ensilage process. Enzymes require moisture before they act, and silo conditions are suitable for action of most of them.

Enzyme solution could be sprayed on feed when put in the silo. The result could be a better use of cellulose in present silage and would make many other roughage materials suitable as silage.

Silage so treated might become cheap roughage for pigs and chicken.

Possibilities for enzymatic treatment, however, neither begin nor end with cellulase, the scientists say. Cellulase does not affect lignin, which coats the carbohydrate material so that enzymes can't get at it. Lignin calls for a different type of enzyme and for more research on its use.

The research men conclude that feasibility of the enzymatic approach to increasing efficiency of energy utilization in feed will be determined by economic considerations. They believe that even in a food-rich society, increased feed efficiency by animals used for food production is desirable. It could mean increased farm income and decreased food cost for consumers.

The persons doing this research are S. Kirkwood and F. Smith, agricultural biochemists, and J. V. Scaletti, microbiologist. They report on the studies in the current issue of Minnesota Farm and Home Science, an agricultural experiment station publication.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 12, 1962

Immediate release

CONSIDER CHILD'S SAFETY WHEN BUYING TOYS

If you're doing some eleventh-hour toy shopping, take enough time to select a toy that will be appropriate to the age of the child and also one that will be safe for the child.

To be sure the toys you select are safe, Glenn Frickett, extension safety specialist at the University of Minnesota, suggests some questions to ask yourself before you buy:

- . Does the electrical toy carry the Underwriters' label insuring its safety?

Are definite instructions included for operation?

- . Has a non-poisonous paint been used on the toy?

. Do dolls and stuffed animals have button eyes that may be bitten off and swallowed by young children?

- . Do metal cars and trucks have sharp corners that can cut the child?

. Is the child for whom you want to buy a BB gun or a .22 caliber rifle really old enough to learn how to handle a gun safely?

Giving careful consideration to the safety of toys before buying them may prevent many an accident, the University safety specialist says.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 13, 1962

Immediate release

SHEEP SCABIES ERADICATION CAMPAIGN STARTS MONDAY

A campaign to eliminate scabies from Minnesota's \$16 million-a-year sheep industry will be launched Monday, Dec. 17, by state sheep producers, farm organizations, veterinarians and state and federal agencies.

Scabies is a rare but highly contagious skin disease, caused by tiny mites.

Few cases of scabies are likely to be found, according to Raymond B. Solac, extension veterinarian at the University of Minnesota. However, complete eradication is necessary to keep and help expand Minnesota's markets for sheep and wool.

Each of the 21,000 Minnesota farms having sheep will be visited by a representative from one of the cooperating agencies. The visitor will be a county extension agent, vocational agriculture instructor, or staff member from the Minnesota Department of Agriculture, the Minnesota Live Stock Sanitary Board or the U.S. Department of Agriculture.

Each flock will be placed under quarantine as of Dec. 17 and will be released from quarantine immediately after inspection by the Live Stock Sanitary Board, if there are no signs of scabies.

Flocks where scabies symptoms occur will remain under quarantine until the Live Stock Sanitary Board is notified and the flock is reinspected by a veterinarian. If the second reinspection shows no scabies, the flock is then released.

Sheep found to be scabies-infected will be dipped in a solution, under official supervision and at state expense, as soon as possible. These flocks will remain under quarantine until reinspected 30 days or more after dipping. A second dipping may be required in some cases.

Minnesota will qualify as a scabies-free area after the U. S. Department of Agriculture is assured that scabies no longer exists and sheep are protected from reintroduction of the disease. Sheep from Minnesota will then be able to move

(more)

add 1 -- sheep scabies drive
freely into any area for any purpose.

Here are some other aspects of regulations which will be in effect until Minnesota is declared to be scabies-free:

- * Sheep infected with or exposed to scabies may be shipped for immediate slaughter within the state during the quarantine period, but only under a permit from a veterinarian.
- * Apparently healthy sheep not under quarantine may be shipped within the state for immediate slaughter without dipping, if accompanied by a written statement signed by the owner giving the number being shipped and the destination.
- * All sheep loaned, traded, exchanged or sold for any purpose other than immediate slaughter or are shipped to public stockyards or auction markets must be dipped under veterinary supervision within ten days prior to movement.

Scabies, according to Solac, has both direct and indirect results. Fleece may suffer in quality and in quantity. Severely infected sheep may die unless treated.

More important are indirect effects in loss of markets. Sheep from infected areas, except those for immediate slaughter, can cross state lines without restrictions only to go to other infected areas.

Wisconsin recently was declared scabies-free, after a campaign similar to the one now being launched in Minnesota. South Dakota, North Dakota and Canada also have scabies-free status.

Initial inspection of state sheep flocks is expected to be completed by mid-January. Declaration of Minnesota as a scabies-free area will not be possible, of course, until later.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 13, 1962

Immediate release

MINNESOTA FARM CALENDAR

DECEMBER

- 17-27 Dairy Herd Improvement Association Supervisors Training School,
St. Paul Campus
27 Vocational Agriculture Instructors Special Short Course, St. Paul
Campus

JANUARY

- 7-10 Weed and Seed Inspectors Short Course, St. Paul Campus
10 Swine Feeders Day, West Central School and Experiment Station,
Morris
16 Crops and Soils Institute, St. Paul Campus
21 and 28 (and Feb. 4 and 11) Property Tax Short Course, Rochester
22 Aircraft Sprayers Short Course, St. Paul Campus
22 and 29 (and Feb. 5 and 12) Property Tax Short Course, Waseca
23 and 30 (and Feb. 6 and 13) Property Tax Short Course, Lamberton
24 and 31 (and Feb. 7 and 12) Property Tax Short Course, Morris
25 (and Feb. 1, 8 and 15) Property Tax Short Course, Little Falls
26-26 Christmas Tree Growers Short Course, St. Paul Campus
28 (and Feb. 4, 11 and 18) Property Tax Short Course, Detroit Lakes
29 (and Feb. 5, 12 and 19) Property Tax Short Course, Crookston
30 (and Feb. 6, 13 and 20) Property Tax Short Course, Grand Rapids
31 (and Feb. 7, 14 and 21) Property Tax Short Course, St. Paul

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 18, 1962

Immediate release

SERIES OF PROPERTY TAX SHORT COURSES TO BE HELD AROUND STATE

A series of nine Property Tax Short Courses for local assessors will be held around Minnesota in January and February.

Each course will involve four day-long sessions, according to James Schwinden, University economist and course coordinator. Courses will be held at Rochester, Waseca, Lamberton, Morris, Little Falls, Detroit Lakes, Crookston, Grand Rapids and St. Paul.

More than 500 local assessors attended five similar courses last year. Response was so enthusiastic, according to Schwinden, that the series is being expanded this year and more topics will be included.

The University of Minnesota Departments of Economics and Agricultural Economics are sponsoring the courses, in cooperation with the Branch Stations and Ag. Extension Service of the University of Minnesota, Minnesota Department of Taxation, Minnesota County Assessing Officers Association, Minnesota Association of Local Assessing Officers, Minnesota County Commissioners Association and the U. S. Soil Conservation Service.

Objectives of the courses are to help local assessors understand the importance of their jobs, to demonstrate tools for assessing and how they can be used cooperatively with county assessing officers and to familiarize local assessors with helpful sources of information.

Township and village assessors are invited to attend. A fee of \$10 is charged for each complete course. County officials may attend a single day's session as observers for \$3.

Instructors will include county assessing officers, University staff members, and representatives of cooperating groups. Topics will include fundamental taxation concepts, equalization, soils and land maps, valuation of farm and village property, special purpose property assessments, and related subjects.

Interested persons may contact the Department of Agricultural Short Courses, Institute of Agriculture, University of Minnesota, St. Paul 1.

The complete schedule of courses is:

Rochester, Jan. 21 and 28 and Feb. 4 and 11; Waseca, Jan. 22 and 29 and Feb. 5 and 12; Lamberton, Jan. 23 and 30 and Feb. 6 and 13; Morris, Jan. 24 and 31 and Feb. 7 and 12; Little Falls, Jan. 25 and Feb. 1, 3 and 15.

Detroit Lakes, Jan. 28 and Feb. 4, 11, and 18; Crookston, Jan. 29 and Feb. 5, 12 and 19; Grand Rapids, Jan. 30 and Feb. 6, 13 and 20; St. Paul, Jan. 31 and Feb. 7, 14 and 21.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 18, 1962

*RESEARCH *
*REPORT *

U OF M DEVELOPS THREE ORNAMENTALS FOR HOME GARDENS

Three new ornamentals for home gardens--a chrysanthemum, a climbing rose and a flowering crabapple--have been developed by University of Minnesota horticulturists and will be available from Minnesota nurseries for spring planting.

The chrysanthemum, called Tenstrike, has bright lavender 1 1/2-inch fully double flowers which bloom about mid-August. This high-mound type of plant reaches a height of 15 to 18 inches and a spread of 24 to 30 inches when grown in full sun. Plants have been unusually uniform in growth habit and flowering each year, regardless of weather conditions. They are useful for a mass color effect in the front flower border.

Tenstrike is the 42nd variety of garden chrysanthemum introduced by the University's horticulture department.

Viking Queen is the name given to the floribunda - type climbing or pillar rose. It produces clusters of fragrant flowers 3 to 4 inches in diameter from late June to mid-October. Blooms are borne in clusters of five or more flowers. The medium to deep pink flower color does not fade, and petals remain on the blossoms even after they have passed their prime. New plants of Viking Queen will grow as much as 6 feet in one season.

Although this rose has demonstrated unusual hardiness, some protection is advisable during Minnesota winters.

Vanguard, the new flowering crabapple, combines year-round interest with a desirable upright habit of growth. The large, rosy pink flowers and the reddish cast of new leaves and fall foliage make this variety an attractive addition to the home yard. Bright red fruits remain on the tree well into winter, serving as food for winter birds.

Vanguard proved hardy in tests at branch experiment stations in various areas of Minnesota. It appears to be highly resistant to cedar apple rust and fireblight and moderately resistant to apple scab.

More information on the new varieties is given in the following publications available from the Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul 1: Miscellaneous Report 49, Viking Queen; Miscellaneous Report 50, A New Garden Chrysanthemum; Miscellaneous Report 51, A New Flowering Crabapple.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 18, 1962

Immediate release

HOW MUCH DO YOU PAY FOR YOUR APPLIANCES?

The end of the year is a good time to take a household inventory--particularly of appliances.

Mary Frances Lamison, state home economics agent at the University of Minnesota, suggests that in the process of taking such an inventory every homemaker should ask herself how much money she has tied up in equipment and how often she uses each appliance.

Many homemakers pride themselves on doing comparison shopping and on saving money on the appliances they buy. But Miss Lamison points out that regardless of the money they thought they saved on a piece of equipment, it actually was not a good buy if they make little use of it.

Here are Miss Lamison's suggestions on taking such an inventory:

List equipment and supplies on the lefthand side of the sheet. Then make three columns to the right for checking: seldom used, never used and cost of features seldom or never used.

Some items for your check list of equipment or supplies might include: rotisserie, timed cooking on range, pull-out oven on range, floor polisher and scrubber, washing machine suds saver, snow plow or mulcher attachment to lawn mower, electric roaster, pressure saucepan, grinder or juicer attachment to electric mixer, electric mangle, vacuum cleaner attachments, kitchen gadgets, record player, F.M. radio, company dishes, company tablecloths.

After making such an evaluation, one woman discovered \$50 worth of equipment her family used never or seldom. Another woman, however, found the family had \$2,856 worth of needless equipment.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 18, 1962

* RESEARCH *
* REPORT *

RESISTANCE OF CORN TO INSECTS, DISEASE AND CHEMICALS MAY BE LINKED

New crop varieties with built-in ability to ward off plant diseases and insects may be getting toughness against weed chemical injury as an extra dividend.

Such a possible tie-up between different kinds of resistance in plants may be one reason why corn nowadays rarely suffers from chemicals farmers apply to control weeds. In selecting new hybrids with other kinds of resistance, plant breeders may have been getting better chemical tolerance at the same time.

Robert Andersen, a U. S. Department of Agriculture plant physiologist at the University of Minnesota, compared one inbred line of corn having high resistance to stalk rot and corn borer, with another inbred having low resistance.

He raised this corn in containers with either simazine or atrazine mixed in the soil. Both chemicals have been used for weed control in corn; atrazine currently is the more popular.

A month after planting, Andersen checked for damage from chemicals by weighing the young corn shoots. As he expected, inbreds which had high stalk rot and borer resistance also suffered less damage.

For example, where he applied atrazine at four pounds per acre, the inbred with high disease and insect resistance had shoots weighing about 90 percent as much as control plants in untreated soil. The low-resistance corn, however, weighed only 75 percent as much as untreated corn of the same kind.

Where Andersen used extremely high chemical rates--16 pounds atrazine per acre--difference between the two corns was even more marked.

Most corn grown in Minnesota has at least as much chemical tolerance as the highly-resistant inbreds which Andersen used. Furthermore, the damage he did find would have been much less, and probably not noticeable, had he merely put the chemical on top of the soil as farmers do.

Andersen's findings, he says, should lead to new studies on the general nature of plant resistance to diseases, insects and chemicals.

One possibility is that there may be a chemical or complex of chemicals inside the plant that determines several kinds of resistance. Just what this chemical is and how it operates requires more study.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 18, 1962

To all counties
For immediate use

FERTILIZER PLACEMENT
PLAYS MAJOR ROLE
FOR CORN, SOYBEANS

Here's a sobering note for corn growers: Chances are about six in ten that fertilizer you put on at planting time isn't hitting the mark.

Best estimates available are that more than 60 percent of the corn planters in use in Minnesota have the "split boot" fertilizer attachment. This device simply doesn't always put the fertilizer where it does the most good and harms the seed least, according to Paul Burson, soils researcher at the University of Minnesota.

The proper place for corn fertilizer is about two inches below and two inches to the side of the seed. And it takes a modern band applicator on the planter to put it there accurately and regularly.

Problem with the split boot is that it may put fertilizer anywhere, depending on soil structure, size and shape of fertilizer particles, and how fast you run the machine.

Burson last summer compared a split boot attachment with another applicator that banded the fertilizer two inches over and two inches down. He used different grades of fertilizer at different rates.

The split boot ruined more corn seed. Although planting rate was 18,000 seeds per acre, the stand went as low as 14,000 plants with the split boot, compared to 16,000 with the band placement.

Still worse were fields in which fertilizer was mixed with the seed. In these cases, corn stands went as low as 8,000 plants per acre.

In soybeans, mixing fertilizer with the seed brought even greater injury. However, band placement and the split boot attachment gave similar results for this crop. In both cases, there was about a 15 percent seed loss--normal for soybeans.

Not all split boot attachments are alike--some are more harmful than others. None, however, is as efficient in fertilizer placement as a band applicator.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 18, 1962

To all counties
For immediate use

EARLY LIMING
IS BEST
IN MINNESOTA

Lime and soil need a 12 to 18 month "getting acquainted" period to do your alfalfa the most good.

Particles of lime need time to dissolve and establish zones of sweet soil on which alfalfa thrives, according to Merle Halverson, extension soils specialist and John Grava, soil test supervisor at the University of Minnesota.

So they urge that lime go on 12 to 18 months ahead of the time when you intend to establish legumes--when acid soils are being limed for the first time. ACP cost sharing time applies up to 18 months before seeding.

The disking and plowing for the crop that precedes the legume all helps mix the lime in. And there's research to show how important this is.

Over in Wisconsin, a researcher compared different times of liming. He found that lime applied and disked in before plowing corrected soil acidity to a 6-inch depth about as well as putting on half the lime before plowing and half afterwards. This was based on soil test four years after application.

However, where all lime was put on and disked in after plowing, there was little effect on soil acidity 3 inches or more below the soil surface.

Furthermore, over a three-year period, lime applied and disked in after plowing meant production of a fourth ton per acre less hay per year than where all the lime went on before plowing. But again, there was no yield difference between split application and applying all the lime before plowing.

Minnesota observations also suggest that poor alfalfa stands are often a result of a poor mix between lime and soil.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 18, 1962

To all counties
For immediate use

F A R M F I L L E R S

Enzymes like those in livestock stomachs may point to new and expanded uses for farm products. University of Minnesota researchers are studying ways to use enzymes to remodel corn and wheat starches to give new substances. They are also seeking ways to make certain farm products easier for livestock to digest. One future possibility--though not feasible at present--is silage for pigs and chickens. This would involve spraying enzyme solution on feed when put in the silo, to make the cellulose in the feed more digestible.

* * * *

A two cent-per-dozen egg premium? Many a Minnesota egg producer is getting it, through volume and top quality. According to University economists, some buyers find they can save money in bulk pickup and in-plant handling of such eggs. And the saving is being passed along to producers. The two-cent premium requires 3,500 birds or more. But at that level, the premium could mean up to \$1,000 more in a year.

* * * *

Stray electricity is rough on stainless steel. Even tiny electrical leaks from frayed cords can affect that milkhouse equipment. Current can scoot across the milkhouse on damp floors or metal pipes to cause pitting even in tanks with no electrical connection. So be sure all electrical cords are in good shape and every electrical circuit is grounded. That's a tip from V. S. Packard, extension dairy products specialist at the University of Minnesota.

* * * *

Brush can be killed now. Just put a mixture of 2,4-D or 2,4,5-T in fuel oil on stems or trunks of unwanted plants. For some plants, that's even more effective than foliage spray, says Bill Miles, extension forester at the University. And it limits danger to other crops.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 18, 1962

To all counties
For immediate use

PLASTIC BOTTLES
SERVE WELL
FOR EMERGENCY

What's a good way to store water for civil defense and other emergency needs?

Glenn Prickett, extension safety specialist at the University of Minnesota, says that used gallon bleach bottles are almost ideal. Plastic bottles, in particular are unbreakable, light and durable.

Prickett says that the bottles should be rinsed lightly once with fresh water and then filled with fresh water and stored. The small amount of bleach which remains in the bottle will provide a safeguard against chance bacterial contamination and will help keep the water fresh.

A seven-gallon supply should be set up for each person in the family. It will supply emergency needs for two weeks. Store water along with food on shelves in the family shelter.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 18, 1962

To all counties
Immediate release
ATTN: HOME AGENTS

PLAN MEALS TO
SUIT CHILDREN'S
LIKES, DISLIKES

Are you concerned because little Johnny eats his meals with relish some days and on other days merely picks at his food?

There may be a number of reasons. For one thing, children have eating cycles which parents should be aware of. The time to introduce new and different foods is when your child is on his cycle's high point. This advice comes from Grace Brill, extension nutritionist, and Charles Martin, extension specialist in family life education at the University of Minnesota.

Children have food jags when they seem to like only one or two foods, the specialists say. However, this jag often disappears in a few days. But mothers should realize this fact when planning meals.

Colorful foods and foods served attractively rate high with children. That extra minute or two it takes to arrange an attractive plate pays off when children--and adults, too--sit down to the dinner table.

When arranging food on children's plates, be careful not to mix foods together. Most children prefer food prepared separately in different dishes over foods that combine a variety of foods.

Although most adults feel that steak is a real treat, children will take hamburger any day because less chewing is required for hamburgers.

Crisp foods such as carrot sticks and toast and soft foods like mashed potatoes and creamy puddings appeal to children. They like different food textures. But textures such as stringiness in beans or scum on cocoa are distasteful to them.

Because children are sensitive to strong food flavors, it's best to include only one strong flavored food in a meal. However, tastes of children differ, so you can vary common seasonings.

For further information on children's tastes and their food needs, ask for Extension Folder 220, Food for Young Children, at your county extension office.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 18, 1962

To all counties
4-H NEWS
Immediate release

4-H'ERS CONCERNED
WITH THE "WHYS"
OF DIET AND HEALTH

Do you know that your diet is very similar to the astronaut's diet?

Through a scientific study of body needs, 4-H'ers enrolled in the junior foods project learn about these similarities in diets in the space age and about the necessary nutrients.

But the emphasis in the foods project and many other 4-H projects is no longer just on "how," but also on "why." By analyzing the needs of the body, 4-H'ers learn to plan nutritious meals that bring good health to themselves and their families.

Although today's spacemen rely upon concentrated wafers and food squeezed from tubes for their nourishment, this food must provide materials for body growth and repair, help regulate body processes and furnish fuel for energy. Since 4-H'ers realize that food must do the same thing for their bodies, too, they plan their meals around the four basic food groups.

In the 4-H foods project, members learn to plan, prepare and serve meals that are nutritionally adequate. They also are concerned with eating a balanced diet every day to maintain their health and normal weight for their age. In addition, they develop an understanding of food costs and buymanship. 4-H'ers put these principles into practice in preparing meals for their family and friends.

Physical fitness is an important part of President Kennedy's program. The 4-H foods projects contribute in one way to building sound bodies and physical fitness through proper eating habits.

The 4-H health project contributes in another way. In this project 4-H'ers learn about the "whys" of dental care, good posture, disease prevention by immunization, first aid, community health, sanitation and family health practices.

The World Health Organization of the United Nations says that "health is the state of complete physical, emotional and spiritual well-being, not merely the absence of disease." 4-H'ers try to be examples of healthy teenagers.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 20, 1962

Immediate release

TWENTY-FIVE 4-H'ERS TO ATTEND 4-H ELECTRIC CONFERENCE

Twenty-five Minnesota 4-H'ers will have an opportunity to examine their future in electricity at the third annual State 4-H Electric Conference.

These 4-H'ers and five adult leaders have been selected to attend the conference Jan. 2-4, on the St. Paul Campus, University of Minnesota.

The conference is conducted cooperatively by the Minnesota Agricultural Extension Service and the North Central Electrical League, Minneapolis, representing electric utilities and Minnesota cooperatives.

Club members who have won trips for their achievement in the 4-H electric project are David Sharp, Park Rapids; Dennis Gapinski, Foley; Roger Thalman, Hamburg; Gerald Covel, Alexandria; James Grunzke, Wells; Jerry Foster, Fountain; Mike Kennedy, Albert Lea, John Flom, Jr., Dennison; Larry Anderson, Barrett; Charles Fish, 7105 Green Valley Road, Minneapolis; Michael Medin, Cambridge; Wayne Christiansen, Belgrade; Joe Christianson, Williams; Douglas Werner, Waterville; Ronald Schilling, Marshall; Barbara Kedrowski, Swanville; Wayne Schottler, Austin; Larry Corbin, Rochester; Peder Furuseth, Thief River Falls; Richard Noyes, Hinckley; Roy Welter, Olivia; Robert Krowech, Salol; Roger Hosfield, Medford; Brian Beck, Eagle Bend; Connie Irish, Wadena; James Meehan, Lake Elmo; Dale Pierce, Utica.

The adult leaders are Philip Lindbloom, Center City; Arden Turners, Preston; Robert Anderson, Mahnomen; Adolph Brekken, St. James; Harlan Aldrich, Nashua.

During the three-day conference, 4-H'ers will tour the Northern States Power Company and Black Dog Plant, the Minneapolis -St. Paul International Airport and the Northwestern Bell Telephone Co. Building and will participate in group sessions discussing careers in the electrical field.

Special sessions include talks on "Getting Acquainted with Isotopes" by Andrew Hustrulid, professor, agricultural engineering, University of Minnesota, and "Magic of Color and Light" by Robert Balders, National Electrical Contractors Association.

Three Minnesota 4-H'ers will give electric demonstrations--Connie Irish and Wayne Schottler, conference delegates, and Gary Hansen, national winner in the 4-H electric project.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 20, 1962

Immediate release

TIPS ON CARING FOR CHRISTMAS PLANTS

The blooms on your Christmas plants will last longer if you follow a few rules in caring for them.

Most flowering plants of the Christmas season are short lived when brought into the home because it's difficult to obtain the ideal conditions under which the plants have been growing in greenhouses. However, C. G. Hard, extension horticulturist at the University of Minnesota, says you can prolong the beauty of many of these plants by:

- Placing them in bright light, preferably sunlight.
- Keeping them at cool night temperatures.
- Keeping the soil moist but not bog-like.

Of all the Christmas plants, the poinsettia is perhaps most sensitive to sudden drops in temperature and to drafts. A temperature of 70 to 75°F. is preferable. Temperatures below 60°F. or above 75°F. shorten the life of the poinsettia. Avoid setting it near a cold or hot air register or near the door. The poinsettia should never be near a window at night.

Keep the soil in the pot moist but do not overwater. Placing the plant in a metal tray in which sand is kept constantly wet will increase humidity.

Hard gives these further tips on caring for other popular gift plants:

Jerusalem cherry. Keep as cool as possible and in full sunlight. Discard when fruits have dropped. Fruits drop naturally soon after they mature.

Cyclamen. A cyclamen may bloom for several months if placed in a cool room of 65 to 68°F. Place it where it gets some morning light. Never allow the soil to dry out completely while the plant is in flower.

Cineraria. Keep in full sunshine during the day and at a night temperature of 50°F. Water heavily. The lower leaves will turn yellow and wilt if the soil is too dry or if the plant gets too little light.

Azalea. The blooms will last much longer if the plant is kept at a temperature between 50 and 60°F. Keep in partial shade and water moderately.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 20, 1962

* RESEARCH *
* REPORT *

FEED-LIVESTOCK MARKETING CONTROLS HAVE BENEFITS, PROBLEMS

Market controls in agriculture--and how they might affect prices and farm income--have been given a hard look by University of Minnesota economists.

An analysis of control programs in the feed and livestock economy has been completed by Lyle P. Schertz and Elmer W. Learn. They found that establishing direct controls in that economic sector would involve many complex problems.

They add, however, that their findings do not necessarily warrant the conclusion that direct controls shouldn't be considered as a major farm policy alternative. Direct controls may involve difficulties, the economists say, but there are also benefits.

Furthermore, Schertz and Learn add, other farm policy choices also face difficulties. Whether controls should be adopted would need to be decided according to a consideration of all major alternatives.

Direct controls could take different forms. In the feed-livestock economy, one possibility would be to put controls on how much of certain livestock products may be marketed, without controlling other livestock classes or feed concentrate consumption.

Another possibility might be to reduce feed concentrate supplies, without controlling production of livestock.

Either system would affect farm income, but the effects would be different.

Then there's the problem of how to figure what a farmer can market. One way is to assign a quota according to what the farm has produced in past years. This method has been standard in past programs. Or, a quota might be based on present and future economic considerations rather than on a history of production.

Here is a look at some of the economists' conclusions:

If farmers couldn't transfer resources from controlled to uncontrolled products restricting any of the major kinds of livestock would increase total farm revenue for
(more)

add 1 direct controls

for the entire feed-livestock economy. This is because of the "inelastic demand" for livestock products. A given percentage change in quantity of livestock products marketed leads to a greater percentage change in price.

Also, this revenue would increase if the restrictions were on feed, since a cut in feed would mean less livestock production.

But here's a catch. Increasing total farm income doesn't mean increasing income for all farmers. Controlling livestock sales, without putting quotas on feed grains, feeder stock, or other "intermediate products" would lower the value of the latter.

Those producing controlled livestock products would benefit in two ways--from higher returns for their products and from lower costs for feed and feeder animals. But those producing feed and feeder animals would take a cut in returns.

Let's suppose only feed concentrate supplies were restricted. Then, the increased price of feed might more than offset the increased gross revenue which livestock producers receive. But if net returns per animal unit weren't affected, the decrease would be absorbed by persons cutting back on livestock production.

Apart from income effects, the economists say, are administrative considerations relating to enforcement. Simplest to control are commodities that move from farms to large central markets--such as slaughter animals. There's more difficulty where the product marketed goes more directly from producer to consumer--as is true to some extent with eggs. Also difficult to control are products used on farms where produced, such as feed grain.

For individual farmers, the question of whether quota certificates can be transferred is important. If transferral is possible, individuals could move in and out of farming. A producer might then regard the cost of getting quota certificates much as he would consider any other cost, such as buying land.

However, the economists say that with transferability, the value of quotas over time would reflect any increase in total farm income brought about by the program.

What would happen is this: In bidding for rights to produce, farmers would

(more)

add 2 direct controls

sacrifice part of the value of their fixed assets, bidding into the quota price all expected increases in value of permitted production.

Capitalized value of quotas might exceed that lost by land and other fixed resources. But there wouldn't be any assurance that persons losing asset values and income would be the same ones to gain from capitalized value of the quotas.

Therefore, Schertz and Learn say, administrative reassignment of quotas might be necessary to improve agricultural income over time. While that would mean tough administration problems, failure to reassign would turn benefits of the program to those getting bases at the start.

The analysis also indicated that transferability would mean that incentives for adopting new technology by farmers would be similar to free market conditions. Alert farmers making cost-reducing changes first would still get better returns.

The idea of market control in agriculture isn't new. It has been involved in farm policy debates in one form or another since the 1920s. In 1956, Willard Cochrane, then a University economist and now a U. S. Department of Agriculture adviser, proposed a program to control directly food products marketed by farmers.

Under the Cochrane plan, national sales quotas would be established by USDA to yield fair prices previously determined by Congress. Such quotas would probably have been divided into farm shares according to past production. Similar programs were later studied as possibilities for the dairy industry, but none was adopted.

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62-557-pjt

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 22, 1962

To all counties
For immediate use

INCOME MANAGEMENT
HELPS KEEP TAXES
AT A MINIMUM

There's one kind of "income planning" that you should do before the 1962 calendar runs out.

Better estimate your expected income in 1963, as well as figuring your 1962 taxable income. That's a tip from Paul Hasbargen, extension farm management specialist at the University of Minnesota.

You might want to try, for tax purposes, to adjust 1962 earnings by last minute purchases or sales. But keep your 1963 earnings estimate in mind when you do.

Hasbargen points out that on the national scene, the outlook is for net farm income in 1963 to stay near 1962 levels. Total cash receipts will be up slightly as a result of heavier marketings of livestock products.

Crop marketing and prices will be about the same in the coming year. Government payments will be larger in 1963.

However, the change in expected income on any individual farm may vary greatly from the national picture. This means each family must estimate its own income. Then a wiser decision can be made about adjusting 1962 earnings.

To keep taxes at a minimum, the incomes in the two years should be relatively close to one another. If this is the case, with both being in the normal range, there is no need to try adjusting 1962 income.

On the other hand, last-minute sales or purchases might prove very worthwhile if either year's income promises to be so low that all exemptions cannot be utilized, or if it is so high that it moves you into a higher tax bracket.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 22, 1962

To all counties
For immediate use

SOIL SAMPLING
MOVES TOWARD FALL

Minnesota's "Fall Soil Sample Roundup" campaigns of recent years have been paying off, according to John Grava, supervisor of the soil testing laboratory at the University of Minnesota.

Farmers, extension agents, the fertilizer industry, and the University have been cooperating in recent years in an effort to get more soil samples taken in fall months. Advantages are that the farmer avoids the last minute spring rush and has plenty of time after his results return to order fertilizer and make cropping plans.

Back in 1959, the soil testing laboratory tested 33,500 samples, 13,000 of which were in March and April, or just before planting time.

By 1961, the picture had changed markedly. The laboratory received and tested 37,350 samples, more than 60 percent of which came in from farmers between August and December. Only 7,000 that year came in during the last two months before planting.

During 1962, heavy snows in the early months kept soil sample numbers down to a trickle. But again, sampling picked up in the fall. Grava reports that 4,700 samples came in during October, 5,500 in November and about 5,500 in December.

As part of the statewide campaign, recognition has gone to counties with highest number of samples per 100 farms collected during the fall. In 1962, this recognition went to Norman county, where 49 samples were collected for each 100 farms in the period from July 1 to Nov. 30. Pennington, Watonwan, Big Stone and Swift counties also scored 40 or more samples per 100 farms in that period.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 22, 1962

To all counties
For immediate use

DHIA PROGRAM
IS EXPANDING

Some 160,000 Minnesota cows are showing the value of records in culling, feeding, breeding and management.

These cows are among the 5900 herds now on Dairy Herd Improvement Association testing programs. They account for more than 14 percent of all Minnesota dairy cows.

Today, the average Minnesota cow on DHIA test produces 11,000 pounds milk annually, or 3,000 pounds above state average. Her butterfat production averages about 400 pounds per year, or 120 over state average level.

Finally, this average DHIA cow returns her owner about \$133 net return to labor, or about \$60 above state average.

The DHIA program has been growing steadily in recent years. Number of cows on test has increased 35 percent in the past two years alone. Since 1955, total number of herds has almost doubled, average milk production has gone up 1,506 pounds and net labor returns have jumped \$33 per cow on test.

That increase in labor return means nearly \$5 million more returns for the DHIA herd owners, in comparison with 1955.

DHIA programs have benefits for the rest of the economy, too. Dairymen invest more than \$1 million annually in hiring supervisors and supporting the program. And it's all good business, since the program returns nearly \$5 for every \$1 invested.

Dairymen not on DHIA test reap benefits too. For example, all proved sires in artificial breeding are found through DHIA records. Since about 40 percent of all dairy cows are bred artificially, it is clear that many herds not on test are getting this improved breeding.

The major DHIA trend now is to central electronic processing. Machines now calculate production records for about half of all cows on test. Dairymen get back neat, accurate and more complete information than ever, on forms which are easier to interpret.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 22, 1962

To all counties
For immediate use

F A R M F I L L E R S

Hogs need plenty of ice-free water in winter. A sow with little pigs, especially, needs several gallons of water daily. An automatic waterer is ideal, says Ray Arthaud, extension livestock specialist at the University of Minnesota. But if troughs are used, they should be filled often enough each day to insure sows clean water to drink most of the time.

* * * *

You can't count on winter cold for milk room sanitation. It's true that lower temperatures slow bacteria growth. V. S. Packard, extension dairy products specialist at the University of Minnesota, says quality milk production requires thorough cleaning and sanitizing of all milking equipment and utensils each time they are used.

* * * *

Hogs in winter housing need about 15 square feet of shelter per animal for gilts and junior boars. Sows and senior boars each need 18 square feet.

* * * *

Repair farm machinery in winter. Spare time can be used for a wide range of chores, from adjusting valve tappets on the tractor to reconditioning the mower. If you have a heated workshop cold's no problem. But a portable oil heater with a fan will also take the chill from work in an unheated machine shed. Use a canvas or cardboard on dirt floors under machinery. It's easier to find dropped parts.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 22, 1962

To all counties

ATT: HOME AGENTS

First in a series of
outlook stories

FOOD PRICES
TO BE ABOUT
SAME IN '63

Food prices are expected to stay at about present levels during 1963.

Yet you and other American consumers will probably spend more in total for food, even though you'll continue to eat about the same amount as in the past year. But your total expenditure for food still means you will use a smaller proportion of your income for this outlay because of higher incomes. According to latest indications, Americans spend on the average about 19 cents of every dollar of take-home pay compared with 26 cents in 1947-49.

The increased spending for food will be accounted for by demand for higher quality, higher-cost items and foods requiring more services either in processing or distributing, reports Mrs. Edna Jordahl, extension home management specialist at the University of Minnesota. For example, Americans are eating more and better cuts of meat and more convenience foods such as mixes, frozen fruits and vegetables, frozen dinners.

Retail store prices are likely to change very little in 1963, except for seasonal variations. However, prices of food consumed away from home--at restaurants and hotels -- will continue to go up.

Prices may be slightly higher on apples, lemons, lamb. Because of the freeze in Florida, consumers may see increased prices for oranges.

Slightly lower prices may be in the offing for pork, frying chickens, canned vegetables.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 22, 1962

To all counties
For immediate use
4-H NEWS

4-H FILLERS

Two more International Farm Youth Exchange (IFYE) delegates from Minnesota are anxious to share their experiences gained from learning another way of life by living it. Jane Goihl, 22, Lake City, and Robert Horning, 25, Revere, returned last week (Dec. 11) from a six-month stay abroad. Serving as "grassroots ambassadors," these two Minnesota 4-H'ers lived and worked with families in Ecuador and Turkey, respectively. Two others who returned earlier are also sharing their experiences through talks to many groups--Don Kronemann, Fergus Falls, who was in Norway, and Judith Carlson, Cokato, IFYE to Germany.

* * * *

While 4-H'ers living on farms outnumber the others, rural non-farm 4-H'ers are increasing in number. On a statewide basis, 74.7 percent of the 4-H'ers are from farm homes, 15.6 percent from rural non-farm homes and 9.7 percent from urban homes.

* * * *

In Fillmore, Marshall, Pope, Red Lake and Swift counties, more than 95 percent of the 4-H'ers live on farms. Cook County has 100 percent membership from rural non-farm homes and Lake County nearly 95 percent. Ramsey County leads the state in urban membership with almost 95 percent.

* * * *

4-H'ers today can choose from 57 projects in 26 fields as compared to 1912 when everyone participated in the "acre yield corn" project. At that time, there were 200 4-H'ers in Minnesota. By 1921, the project list included breadmaking (the first girls' project), pigs, canning, gardening, beef, potatoes, clothing, room furnishings and cake making. These 4-H members took only one project a year, compared to two or three taken by most present-day members.

* * * *

The combination of 4-H and a college education is excellent on the job market, according to the Association of Land-Grant Colleges and Universities for 4-H'ers who go on to college, there are some 15,000 jobs in agriculturally-related industries awaiting them, with only 7,000 agricultural graduates to fill them.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 26, 1962

Immediate release

SERIES OF SWINE DAYS SET FOR EARLY JANUARY

A look at modern hog production techniques will be taken at four Swine Day programs around Minnesota in January.

The events are sponsored by the University of Minnesota's Institute of Agriculture, through cooperation of the Animal Husbandry Department, the Department of Agricultural Short Courses, the Agricultural Extension Service, and branch experiment stations.

Programs will be at the West Central Experiment Station at Morris, Jan. 10; the Southern School and Experiment Station, Waseca, Jan. 14; at Turner Hall in New Ulm, Jan. 15 on the St. Paul campus Jan. 17.

Speakers will include livestock research men and extension specialists from the University and staff members at branch stations.

Topics at each event will include simplified pig starters for pigs weaned at 3 weeks; feeding programs for growing swine and for sows and gilts and a discussion of Minnesota swine improvement programs.

A special feature of each of the three out-state events will be a look at up-to-date housing and management systems--including confinement, different types of floors, materials handling, and sanitation.

At the Morris and Waseca events, staff members at the respective stations will summarize recent hog feeding trials there.

The Minnesota Swine Producers Association will hold its annual meeting in conjunction with the St. Paul campus program Jan. 17.

Each event will begin at about 9:30.

This is the third year during which the Swine Days have been held on a regional basis. More than 1,000 farmers attended a similar series in 1962.

Persons wishing for more information can contact the Department of Agricultural Short Courses, University of Minnesota, St. Paul 1.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 26, 1962

Immediate release

4-H BOYS AND LEADERS RECEIVE TRIPS TO AGRONOMY CONFERENCE

A learning experience in grain marketing and merchandising is planned for Minnesota 4-H'ers at the State 4-H Agronomy Conference. Twenty Minnesota 4-H Club boys and 20 adult Club leaders have been selected to attend the conference Jan. 2-4, on the University of Minnesota's St. Paul Campus.

The conference is sponsored by the Minnesota Agricultural Extension Service and F. H. Peavey & Company. The Peavey Company awards the expense-paid trips.

Club members who have won trips for their achievement in the 4-H agronomy project are Donald Leabch, Foley; Stanley Jensen, Montevideo, Lloyd Stream, Shafe; Daniel Evert, Sabin; Alyn Angus, Farmington; Ronald Sletto, Brandon; Steven Tessun Preston; Keith Kuiters, Clarks Grove; Thomas Johnson, Houston; David Daberkow, Lakefield; Roger Krause, Baudette; Dick Nytes, New Prague; Kenneth Stalboerger, Waubun; Gail Bach, Litchfield; Barry Markl, Edgerton; Thomas Trapp, Sanborn; Lyle Koch, Gaylord; Alan Tohm, White Rock, S.D. (Traverse County); Robert Lamprecht, Plainview; David Dornfeld, Stillwater; Allen Rasmussen, Lewiston.

The adult leaders are Edward Lund, Bemidji, Phillip Lang, Springfield; Harold Benson, Murdock; Alvin Seetin, Winnebago; Loren Graskamp, Preston; Nathan Fullerton, Lake Lillian; Alfred Jensen, Stephen; Dan Carlson, Dassel; Walter Jerabek, Grove City; William McKibben, Foley; Lloyd B. Nelson, Halstad; Oliver Haugen, St. Hilaire; Wayne Anderson, Lowry; Edwin Sawin, Olivia; Carl McNallan, Kellogg; Donald Fuder, Foxhome; Charles Pederson, Montevideo; Andrew Mathiowetz, Morton.

Program plans for the three days include tours of the Minneapolis Grain Exchange, the Federal Reserve Bank, Russell Miller-King Midas Flour Mill, and a study of agronomy research on the University's St. Paul Campus. Throughout the conference the importance of careers in agronomy and related fields will be stressed.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul I -- tel. 647-3205
December 26, 1962

Immediate release

\$4,548 IN SCHOLARSHIPS ANNOUNCED FOR ST. PAUL CAMPUS

A total of \$4,548 in scholarships has been awarded to 24 upperclass students in the College of Agriculture, Forestry and Home Economics at the University of Minnesota for the 1962-63 academic year.

The scholarships funds are from nonprofit organizations, individuals, and industrial organizations interested in promoting college education in agriculture and agriculturally-related fields, according to Keith McFarland, director of resident instruction at the College.

The scholarships and their recipients are:

Borden Agricultural Scholarship, \$300--William A. Krueger, Dunnell, Minnesota, agronomy senior.

Borden Home Economics Scholarship, \$300--Patricia A. Daniels, Tracy, Minnesota, home economics education senior.

Burpee Award in Horticulture, \$100--Roger L. Hintze, Spring Valley, Minnesota, horticulture senior.

Chapman Foundation Forestry Scholarship, \$300--Steven G. Thorne, 1413 Orkla Drive, Minneapolis, Minnesota, forestry freshman.

Chapman Foundation Forestry Scholarships(Sophomore) four \$200 each, Erwin R. Berglund, 3216 E. 24th St., Minneapolis; David H. Daniels, 4801 Dupont Ave. So., Minneapolis; Herbert G. Giefer, 2016 Seabury Ave., Minneapolis; Barry W. Welch, 1504 Traymore Road, Minneapolis.

Dairy Husbandry Scholarship, \$200--Kerwin L. Siewert, dairy husbandry sophomore.

Federated Garden Clubs of Minnesota Scholarships, \$100 each-- all horticulture students--Mrs. Marjorie E. J. Rodberg, St. Paul; Marvin C. Eisel, Ripley, Minnesota, horticulture senior; Roger L. Hintze, Spring Valley, Minnesota, horticulture senior.

(more)

add 1 -- scholarships

Garden Club of Ramsey County Scholarship, \$50--Gary Lee Kawalek, Mora, Minnesota, horticulture freshman.

Homelite Forestry Scholarships, \$166 each--Darrell M. Frogness, Hayward, Wisconsin, forestry senior; James W. Klein, Appleton, Wisconsin, forestry senior; Donald H. Pederson, 1865 N. Fairview, St. Paul, Minnesota, forestry senior.

Medicine Lake Garden Club Scholarship in Landscaping, \$100--Marvin C. Eisel, Fort Ripley, Minnesota, horticulture senior.

Minnesota Garden Flower Society Scholarship, \$100--Mrs. Marjorie E. Rodberg, 2232 Draper Ave., St. Paul, Minnesota, horticulture senior.

F. H. Peavey and Company Undergraduate Scholarship, \$ 300--Alan Earl Olness, Kenyon, Minnesota, soils senior.

Sears-Roebuck Foundation Freshman Scholarship in Agriculture and Forestry, \$300--Dale G. Baseman, Hutchinson, Minnesota, animal husbandry freshman.

Sears-Roebuck Foundation Sophomore Scholarship in Agriculture or Forestry, \$300--George H. Copas, Little Falls, Minnesota, agricultural education sophomore.

Smith-Douglass Company, Inc. Scholarship, \$100--Gyles W. Randall, Kenyon, Minnesota, soils senior.

Harold K. Wilson Scholarship, \$200--Gerhardt N. Fick, Vergas, Minnesota, agronomy junior.

Award of International Milling Company Scholarship in Agricultural Biochemistry, \$300--David Lee Martin, 1293 No. Victoria St., St. Paul 17, Minnesota, agricultural biochemistry senior.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 26, 1962

Immediate release

FILLERS FOR YOUR WOMEN'S PAGES

The best place to display a poinsettia plant is below eye level, says C. G. Hard, extension horticulturist at the University of Minnesota. A tall plant shows off to best advantage on the floor, a short plant on a low table.

Rearranging furniture can be a boon to your carpet. A shift of even a few inches will avoid constant pressure on one spot. But Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota, points out that a more complete moving job will create a new traffic pattern in a room, resulting in more even distribution of wear and longer carpet life.

More than 4.7 billion pounds of food were distributed last year to needy persons at home and overseas through the U. S. Department of Agriculture's Direct Distribution Program.

After removing your wool coat, suit or dress, give it an airing and a rest between wearings. Extension clothing specialists at the University of Minnesota say wool garments will lose most of their wrinkles so they won't need pressing.

The secret of a wool fabric's durability is the unique elasticity of the wool fibers which stretch and recoil, adjusting to body movements. If a wool garment is allowed to rest 24 hours on a good hanger, these tiny fibers return to their normal position, shedding wrinkles in the process. Natural moisture in the air helps revive the texture of the fabric.

A growing interest in home economics is reported by land-grant colleges. A recent survey of 57 institutions shows an increase of 815 home economics students in 1962. This is 4.5 percent more than in 1961.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 28, 1962

Immediate release

4-H LEADERS TO ATTEND MUSIC AND RECREATION INSTITUTES

More than 4,000 4-H Club adult and junior leaders in Minnesota will learn about the importance of music and recreation in the 4-H program as a result of 4-H Leaders' Institutes to be held throughout Minnesota during January.

The over-all objective for the 10 area institutes is to increase the effectiveness of the local 4-H meetings and county 4-H programs in meeting some of the needs of youth through recreation and music.

The institute schedule for the state is as follows: Jan. 3, River Inn Hotel, Fergus Falls; Jan. 9, Northwest School and Station Library, Crookston; Jan. 10, North Central School and Station, Grand Rapids; Jan. 11, Zion Lutheran Church, Cloquet; Jan. 15, Community Hall, Litchfield; Jan. 17, Zion Lutheran Church, Anoka; Jan. 22, Bethel English Lutheran Chruch, Rochester; Jan. 23, Southern School of Agriculture, Waseca; Jan. 24, New Lutheran Church Hall, Slayton; Jan. 25, Court House Assembly Room, Montevideo.

How recreation and music meet some of the needs of youth and what resources are available are topics which club recreation leaders will discuss. They will also receive actual training in directing group games. County extension agents will learn how trainers of recreation and music leaders might conduct leader training sessions in the county and will attempt to define the scope of recreation and music, including camping.

Four adult leaders and the county agent from seven to 11 counties will attend each of the area institutes. They in turn will train two leaders from each club in the county in directing singing and group games.

Stanley Meinen, assistant state 4-H Club leader at the University of Minnesota, is in charge of planning the institutes. He and eight other staff members will conduct the meetings.

The 4-H Leaders' Institutes are held each year to help leaders do more effective work with their local club members.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 28, 1962

Immediate release

WEED AND SEED INSPECTORS TO MEET JAN. 7-10

More than 100 county weed and seed inspectors will meet Jan. 7-10 for their 22nd Annual Short Course on the St. Paul Campus of the University of Minnesota.

The four-day program will provide instruction in weed and seed identification, crop production, weed control, insect control, seed certification, seed laws, plant disease control and related subjects, according to arrangements co-chairman, Richard Behrens, University of Minnesota agronomist.

Thursday's sessions will be open to the public. They will include a report on Minnesota weed control research and recommendations by Behrens and the 1963 insect survey and forecast by R. G. Flaskerd, entomologist with the State Department of Agriculture.

62-56⁵-pjt

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 23, 1962

Immediate release

PLENTY OF FOOD FORECAST FOR '63 MARKET BASKET

Plenty of food for the family market basket at about the same prices you paid this year--that's the forecast for 1963.

Food will continue to take only about 19 cents out of each dollar of your take-home pay. That's the smallest share on record--about 7 cents less than the proportion Americans spent for food a dozen years ago.

As incomes rise in 1963, your total expenditure for food will also increase, though the proportion you spend for food will remain the same, according to Mrs. Edna Jordahl, extension home management specialist at the University of Minnesota. You'll be buying better quality food and higher cost items, including more meat and better cuts of meat, and you'll probably demand more marketing services in the form of convenience foods.

This is the outlook for supply and price levels of various foods in the coming year, as predicted by the U.S. Department of Agriculture's Economic Research Service:

Meat. Larger beef and pork supplies and smaller supplies of veal and lamb are in prospect. Meat prices will average about the same as this year. Lower retail prices for pork will be offset by higher prices for lamb and possibly slightly higher beef prices.

Poultry. Broilers are expected to offer red meat more price competition, especially in the first half of the year, because of larger supplies. Another large turkey crop is in the offing for 1963--possibly second in size to the 1961 record. Prices of turkeys should average about the same as this year.

Eggs. Egg supplies will be somewhat lower than a year ago during the first part of 1963. As a result, retail egg prices may average higher during the first quarter. As egg production increases, the second half of 1963 will see lower prices.

(more)

Add 1 - food forecast

Dairy products. Milk supplies are down seasonally but are running above a year ago. Prices will average about the same as last year's.

Edible fats and oils. Supplies are at record levels, leaving large amounts available for export. Retail prices are expected to average near current levels during most of 1963.

Fruit. Supplies of fresh and processed fruit may be a little larger in the first half of 1963 than in the same period a year ago. Retail prices for apples and lemons and for dried fruits will be slightly higher than a year ago. Fresh winter pears and canned and frozen red tart cherries will be in especially plentiful supply in January.

Vegetables. With total fall production of fresh vegetables below a year ago, declining supplies into winter will bring considerably higher consumer prices than in early fall. An abundant supply of potatoes and cabbage, however, puts those two fresh vegetables on the best buys list for January.

Most major canned vegetables are expected to be in larger supply than a year ago and hence lower priced. Most frozen vegetables will be in ample to heavy supply.

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62-566-jbn

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1 -- tel. 647-3205
December 28, 1962

* * * * * * * * * *
*For release at 10 a.m. *
*Saturday, December 29 *
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FOUR-POINT APPROACH TO POULTRY HEALTH EXPLAINED BY U. S. RESEARCHER

PHILADELPHIA--Four approaches to improved health and higher market quality of chickens and turkeys were explained today by a University of Minnesota researcher.

Veterinary scientist Benjamin S. Pomeroy told the American Association for the Advancement of Science that of all poultry condemnations at slaughter plants in 1961, 35 percent were due to diseases.

Health is probably more important in product quality for poultry than for other livestock, Pomeroy said, since birds are raised in large numbers and are afflicted with highly contagious diseases.

He listed these approaches to more healthy turkey and chickenflocks and therefore higher market quality:

1. Vaccination programs, tailored to the needs of the area and the farm.

Effective vaccines are available for bronchitis and laryngotracheitis in chickens, and fowl pox, erysipelas, fowl cholera and Newcastle diseases in both chickens and turkeys.

2. Disease control programs, such as the National Turkey and Poultry Improvement Plans, especially concerned with elimination of salmonella organisms from food products. These programs are voluntary and currently involve about 29,000 chicken and 2,400 turkey flocks. Minnesota and other turkey states also have voluntary programs for elimination of infectious sinusitis in turkeys and chronic respiratory disease (CRD) in chickens.

3. Use of feed additives for control of diseases and parasites. Chemical preventives are now available for blackhead disease in turkeys and coccidiosis and other infectious diseases in both chickens and turkeys. In 1951, before drugs for blackhead were available, that disease accounted for 15 percent of all turkey deaths in Minnesota. With increased drug use, that percentage dropped to 11 percent in 1956 and 6 percent in 1961.

(more)

Add 1 - Pomeroy

Total blackhead loss in 1961 was 126,000 birds, less than a third of what it would have been if the death rate had been the same as 10 years earlier.

4, Intensive management programs, concerned primarily with preventing introduction of diseases into poultry flocks. Under most programs where strict control is practiced, condemnation in processing plants often runs as low as .20 percent, compared to 1.93 percent of all poultry inspected by the U.S. Department of Agriculture. Such programs are being conducted among some turkey flocks in Maine, where the emphasis is on management practices, with no use of live virus vaccines and no medication except for coccidiosis control.

The most serious health problems in poultry involve the respiratory diseases, such as Newcastle and bronchitis. Respiratory diseases accounted for 40 percent of all poultry condemnations in 1961 and another 24 percent were due to conditions resulting from such ailments.

In Minnesota, 77 percent of all condemnations for 1961 were related to respiratory infections.

62-567-pjt

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 29, 1962

To All Counties

First of two articles
on hog housing

SLATTED FLOORS
SAVE ON HOG
HOUSING SPACE

Slatted floors in hog houses offer advantages in space saving, elimination of bedding and simplified manure handling.

Dennis Ryan, extension agricultural engineer at the University of Minnesota, says that use of slatted floors is just one of the new ideas being used by hog growers to save labor and other management expenses and to increase profits from their hog operation.

The slatted floor idea fits into the new system in which hogs are kept inside during the entire growing and finishing cycle.

The space saving comes from the smaller amount of room required to house an individual hog. Under conventional hog handling, you figure each 215 pound animal will need 15 square feet of area. With slatted floors you eliminate extra space required for bedding and dunging and each animal gets by with six square feet.

This pays off in several ways, Ryan says. In a building of a given size, two and one-half times as many hogs may be housed as under the older housing system. Or if you want to keep the same number of hogs as before, your building needs to be less than half as big. Smaller buildings are less expensive to build and less costly and easier to heat.

Elimination of bedding saves labor in collecting, storing and spreading it for the animals' use. Costs of the bedding and of storing it are eliminated, too. Finally, absence of bedding means that less bulk must be handled when the manure is removed.

add 1 slatted floors

Manure removal is simplified with the slatted floor system, Ryan points out. Since there is no straw to mix with it, the manure works through the floor into a specially designed pit below the house.

Instead of daily removal of manure or weekly cleaning of a septic tank, removal may be weekly, monthly or every six months, depending on the size of pit used. Augers or pumps can be used to remove the manure from the pit.

Slatted floor housing does pose some problems for the hog grower. Ryan points out that a large number of animals are concentrated by the system into comparatively small space. This may simplify heating in winter, but it makes good ventilation a must, all year around.

You have to figure that for every 100 pounds of hog, in winter you need to provide 15 cubic feet of air per minute. In summer you double this amount. Open windows or the old "one-hog-house fan" simply will not do the job, Ryan says.

Hog growers who plan to use the slatted floor system must decide whether they will adapt old buildings or build new ones. Then there is the question of whether to use full slatted floors or partial floors and the type and suspension of the slats. Finally they need to figure out the type and size of the manure pits which will best suit their purposes.

Ryan advises hog growers to study their own hog housing situation closely and to become familiar with the alternative proposals possible with the slatted floor arrangement before going ahead.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 29, 1962

To All Counties

Second of two articles
on hog housing

MODERN HOG PLANT
REQUIRE GOOD HOUSES
AND MANAGEMENT

Modern hog growing methods incorporate the idea of multiple farrowing to produce pig crops every three or four months.

It is also part of the procedure to have separate housing for the sow herd, the farrowing sow and for the growing and fattening pigs.

Dennis Ryan, extension agricultural engineer at the University of Minnesota, says this means that a hog grower wishing to adopt the new system will probably have to remodel or rebuild most hog housing which is more than five years old.

The building for the sow herd, he says, can be relatively inexpensive. It can be an old barn, brooder house or chicken house or it can be an open building. Usually the sows eat and drink outside. The layout used will depend on the breeding and farrowing program. The more times a year you have a group of sows farrowing, the more divisions the building will need and the more efficient must be the management of the sow herd.

The farrowing building is used for that purpose only. You need to plan for at least one month between farrowings when, after thorough cleaning of the building, no animals of any kind are kept in it.

Ryan says that the farrowing building should be well insulated and well-ventilated. It may need to be artificially heated.

Two different choices of management may be used in the farrowing house.

Sows may be kept in farrowing crates until the pigs are weaned. They do their eating and drinking inside. The other choice is to allow sows outside

add 1 farrowing and growing

twice a day to eat and drink.

Regardless of building layout and farrowing arrangement, the building should be easy to clean and it should have a high-pressure water supply for washing down.

The growing and finishing building for the growing pigs can be either a cold building with one side open or a well-ventilated, well-insulated closed building.

Size of the building and the number of pens it contains depends on the number of hogs produced each year and the farrowing pattern. In general, Ryan says, the idea is to allow each pig coming in at the age of six weeks about seven and one-half square feet of space for bedding and feeding. More space is available for the growing pigs as older pigs in the building are marketed. During the final weeks before marketing, each pig should have about 15 square feet of space.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 29, 1962

To All Counties

For immediate use

COLUMN FILLERS

Feed supplies for the 1962-63 feeding year is down about 6 percent from a year ago, according to Harold Pederson, extension economist at the University of Minnesota. The drop is due largely to reduced feed grain acreage in 1961 and 1962, through farmer participation in the Feed Grain Program. Furthermore, total acreage of feed grains for those two years was down about 18 percent from the 1959 and 1960 harvested acreage.

* * *

For higher market quality of poultry: A University of Minnesota veterinary scientist suggests four approaches for healthier turkey and chicken flocks and therefore higher market quality. He suggests vaccination programs, tailored to the needs of the farm; disease control programs; use of feed additives for control of diseases and parasites; and intensive management programs to keep diseases out. Most serious health problems in poultry involve respiratory and related diseases, which accounted for 77 percent of all condemnations at Minnesota poultry markets in 1961.

* * *

Construction of highways, urban expansion and similar non-farm developments will take more than 420,000 acres of present rural land by 1975, according to the recent Minnesota Soil and Water Conservation Needs Inventory.

* * *

Ninety to ninety-five percent of hogs being marketed show some evidence of crossbreeding, according to I. T. Omtvedt, University of Minnesota extension animal husbandman. He says such widespread adoption of a practice shows that a good many swinebreeders have found crossbreeding worthwhile.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 29, 1962

To All Counties
For Immediate release

TAKE STOCK
OF FINANCES
IN LOOK AHEAD

Before making family financial resolutions for 1963, better ask yourself some pointed questions, a University of Minnesota extension economist advises.

Paul Hasbargen suggests a good look at where you are now and how you got there.

Start with income tax returns for the last three or four years. What have your earnings been? Have they been enough to meet family needs and make the progress in net worth that you would like?

Have you been able to meet debts the past few years so as to increase your net worth -- or has net worth been decreasing?

Records in Minnesota indicate that most farm families have cash living expenses between \$3,000 and \$4,000 per year. Another thousand dollars often goes into insurance, savings and new housing or equipment. More younger families, rather than being able to accrue savings, have rather heavy debt load requirements that must be met.

If your annual total net income has been exceeded by family living expenditures and debt payments during the past few years, serious financial difficulty may be just ahead unless you can correct the situation. Many times this situation can develop without a family realizing it. Family living expenditures may be kept up, but needed replacements of power machinery and buildings may be neglected for a period of years. Thus, the family's net worth will be decreasing.

-more-

add 1 take stock finances

More serious is when family living expenses, plus normal farm business expenditures, exceed cash income for the year. This isn't always as easy to spot as you might think. But such trouble will show up in larger accounts, travel mortgages and perhaps current notes due at the end of the year, compared to the beginning.

Even if there is no difficulty in keeping up with current commitments, many families find their income is not sufficient to accomplish their goals for the near future.

Should you find yourself in one of these situations, Hasbargen says, better do some careful analysis of the farm business and look over some alternatives for improving your income. The county Agricultural Extension Service has a number of helpful publications on principles of farm management.

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Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 29, 1962

To all counties
ATT: Home Agents
Immediate release

START NOW TO
TEACH DAUGHTER
HOME DECORATING

Many young homemakers lack confidence in their ability to plan and furnish their homes. And they often lack confidence because their training includes very little preparation for their important future job.

You can begin teaching your daughter the "household arts" at an early age, according to Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota.

A mother-daughter study course in interior decorating would not only be fun for both of you, but also it would produce a more relaxed and confident bride someday.

The best teaching tool is her own room, so why not begin your course there? When she becomes a teenager, let her "do" her room. Together, figure out the amount of money that can be spent and remind her that it must cover curtains, rugs and accessories and other items she decides on. Give her a free hand in making inexpensive purchases. Even if she makes some poor choices, she'll learn from them.

The next phase of your study course might expand to include the whole house. When she is ready, let her help you with decisions about decorating and purchasing for the rest of your home. By shopping with you, she'll learn how to look for value, how to compare and which brand names to depend on.

If you can instill in your daughter the feeling of creativity in decorating, she will find satisfactions in self expression, and in production of a beautiful environment which will bring increased happiness for her own family.

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 29, 1962

To all counties
4-H NEWS
Immediate release

IT'S FOR
THE BIRDS!

Your Christmas tree may be all decorated and look very pretty in your home during the holidays, but what will you do with it after the Christmas season?

Give it to the birds, suggests Marvin Smith, extension forester at the University of Minnesota.

Collect a few of the neighbors' trees--they probably would be most happy to find a way to get rid of them. Pile three or four trees in tepee fashion and tie the tops together with the butt ends spread apart.

You can hang suet, bird seed cakes and a supply of grit on the branches and beneath the shelter formed by the trees. The birds can really eat in style with their own Christmas trees forming a protection from the snow.

-kmr-

Information Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
December 29, 1962

To all counties
4-H NEWS
Immediate release

4-H LEADERS
TO ATTEND
INSTITUTE

The importance of music and recreation in the 4-H program will be discussed from all angles at the 1963 4-H Leaders' Institutes to be held throughout Minnesota, according to Stanley Meinen, assistant state 4-H Club leader at the University of Minnesota and chairman of the event.

The institute will be held in January on an area basis. Representatives from seven to 11 counties will attend each area meeting. The institute for

_____ County is scheduled for _____ on _____.
(place) (date)

_____ and four adult leaders will attend the session.
(agent)

The leaders are _____. These leaders will present the
(give names and addresses)

materials to two other 4-H leaders from each club in the county at a later time.

The over-all objective for the 10 area institute meetings is to increase the effectiveness of the local 4-H meetings and county 4-H programs in meeting some of the needs of youth through recreation and music.

How recreation and music meet some of the needs of youth and what resources are available are topics which club recreation leaders will discuss. The leaders will also receive actual training in directing group games and group singing. County extension agents will learn how trainers of recreation and music leaders might conduct leader training session in the county and will attempt to define the scope of recreation and music, including camping.

add 1 leaders institute

, assistant state 4-H Club leaders at the Uni-
(give names of staff conducting your meetings)

versity of Minnesota, will conduct the area institute.

Nearly 10,000 adults in Minnesota volunteer their services to local 4-H clubs, giving in time alone what amounts to a total of 16 days a year or more to their club activities. The 4-H Leaders' Institutes are held each year to help them do more effective work with their local club members.

-kmr-

Note to agent: We can furnish mats of 4-H staff members conducting your area meetings except Rhoda Anderson.