

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 1, 1963

*For release at noon, *
*Wednesday, Oct. 2 *

NEED FOR CONTINUING EDUCATION SEEN IN DAIRY INDUSTRY

A need for continuing education to prevent "human obsolescence" in the dairy industry was stressed this morning by Sherwood O. Berg, dean of the Institute of Agriculture at the University of Minnesota.

He spoke before the 70th annual convention of the Minnesota Creamery Operators' and Managers' Association in Minneapolis.

Berg predicted that the trend toward fewer and larger dairy manufacturing plants will continue, and he warned that further technological advance and improved understanding of the economic environment could precipitate human obsolescence and would call for continual upgrading of the "human element which built a dynamic industry."

But, he added, "the educated operator and manager, conversant with production needs and trends, processing and manufacturing technologies, and in tune with the economic environment, will not be obsolete."

He urged continuing education for persons charged with creamery operation and management, training of potential replacements, and further education for dairy producers.

"We probably will no longer see the day," Berg stated, "when the apprenticeship program by itself will produce that operator and manager who can effectively serve his organization." Continuing education is vital, he explained, because advancing technology can spell success or failure of the creamery operation.

Especially needed in the dairy industry, he said, are:

* More basic education in the underlying relationships of a creamer operation in the total economic area it serves.

(more)

add 1 -- need for continuing education

* Promotion of the production of quality milk through knowledgeable field men and haulers.

* A better understanding of dairy processes and trends.

Berg reviewed major changes in the dairy industry during the past 25 years.

In production, he observed, nationally the number of milk cows has dropped nearly a fifth, average annual production per cow has gone up by nearly two-fifths, and man hours of labor for each 100 pounds of milk has dropped by more than a fourth.

In transportation, the trend is to more efficient and labor-saving equipment. Number of bulk milk tanks in Minnesota increased over five-fold between 1953 and 1962.

In processing, manufacturing and distribution, labor inputs have been reduced. Push button controls and metering of ingredients has increased volume and reduced manufacturing costs.

Total number of dairy plants in Minnesota, Berg noted, dropped from 874 in 1938 to 356 as of July, 1963. The drop was sharpest among smaller operations, while those with larger volume actually increased in number.

"The trends have been established for all to see," Berg said. "We will see more efficient units with a resulting lower per unit cost."

But this shifting, he added, "is not unique in its effects on the dairy industry and the creamery operators and managers of our state.

"All industries serving agriculture in Minnesota are facing adjustments precipitated by a declining farm and small town population. Population growth, distribution, and migration patterns that characterize Minnesota today concern both rural and nonrural people. These are not recent trends but have been part of the industrialization and mechanization of our nation in the past 60 years."

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Immediate release

INSTITUTE OF AGRICULTURE CALENDAR

OCTOBER

- 1 Junior Livestock Show, South St. Paul Stockyards
- 2-3 Minnesota University and College Food Service Directors, St. Paul
Campus Student Center
- 4 Public hearings on proposed USDA wheat grade changes, Mpls.
- 12 Southern Minnesota Tree Farm Field Day, Carver
- 10 Student-Faculty reception, College of Agriculture, Forestry and
Home Economics and College of Veterinary Medicine, St. Paul
Campus Student Center.
- 21-23 Farm Income Tax Short Course, Lowry Hotel, St. Paul
- 21-23 Corn Soybean Day, Waseca
- 21-23 District 14, FFA Soils-Poultry Contest, Waseca
- 21-23 District Weed Inspectors' Meeting, Waseca
- 22-23 4-H Clothing Conference, Grand Rapids
- 22-23 Red River Valley Dairymen's Association Meeting, Crookston
- 27-Nov. 1 National Farm Safety Congress, Chicago
- 29-30 4-H Clothing Conference, Crookston
- 31-Nov. 1 4-H Clothing Conference, Morris

NOVEMBER

- 2 Waseca County 4-H Achievement Banquet, Waseca
- 5-6 4-H Clothing Conference, Waseca or Rochester
- 7-8 4-H Clothing Conference, Anoka
- 10-13 Annual meeting, Association of State Universities and Land-Grant
Colleges, Chicago
- 12-13 Crop Quality Extension Conference, Fargo, N.D.
- 13-14 4-H Clothing Conference, Windom
- 22-28 National Farm and City Week, St. Paul
- 25 Varietal Recommendations Conference, St. Paul

(more)

add 1 -- calendar

NOVEMBER (Cont.)

27 Southern School of Agriculture Parents' Association Meeting and
Parents' Day, Waseca

30-Dec. 5 National 4-H Club Congress, Chicago

DECEMBER

2-3 Minnesota Nurserymen's Annual Conference, St. Paul

4 Annual Christmas Assembly, St. Paul Campus Student Center

5 Beef Feeders' Day, Morris

9 Soils and Fertilizer Short Course, St. Paul Campus

9-10 Minnesota Fruit Growers' Annual Conference, La Crosse, Wis.

9-12 Annual Conference, Minnesota Agricultural Extension Service,
St. Paul Campus

16-21 Dairy Herd Improvement Association Supervisors' Training School,
St. Paul Campus

27 Vocational Agriculture Instructors' Special Short Course, St. Paul

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Department of Information
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St. Paul 55101 -- Tel. 647-3205
October 3, 1963

Immediate release

INSTITUTE OF AGRICULTURE CALENDAR

OCTOBER

- 4 Public hearings on proposed USDA wheat grade changes, Mpls.
- 10 Student-Faculty reception, College of Agriculture, Forestry and Home Economics and College of Veterinary Medicine, St. Paul Campus Student Center
- 12 Southern Minnesota Tree Farm Field Day, Carver, Minn.
- 21-23 Farm Income Tax Short Course, Lowry Hotel, St. Paul

NOVEMBER

- 10-13 Annual meeting, Association of State Universities and Land-Grant Colleges, Chicago
- 12-13 Crop Quality Extension Conference, Fargo, N. D.
- 22-28 National Farm and City Week, St. Paul
- 30-Dec. 5 National 4-H Club Congress, Chicago

DECEMBER

- 4 Annual Christmas Assembly, St. Paul Campus Student Center
- 9 Soils and Fertilizer Short Course, St. Paul Campus
- 9-12 Annual Conference, Minnesota Agricultural Extension Service, St. Paul Campus
- 16-21 Dairy Herd Improvement Association Supervisors' Training School, St. Paul Campus
- 27 Vocational Agriculture Instructors' Special Short Course, St. Paul

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63-282-pjt

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October 3, 1963

Immediate release

FARM INCOME TAX SHORT COURSE OCT. 21-23

The University of Minnesota's Institute of Agriculture will hold its 21st annual Farm Income Tax Short Course on Oct. 21, 22, and 23.

The short course, conducted by the Department of Agricultural Short Courses and sponsored by the Agricultural Extension Service and the Department of Agricultural Economics, will be held in the main ballroom of the Hotel Lowry in St. Paul. The course will cover three areas: Income tax preparation, Federal Income taxes, and State Income taxes.

There will be a number of talks by experts in the field of taxation as well as specific discussions on pertinent tax problems facing farmers. The program will include members of the Internal Revenue Service and the Minnesota Department of Taxation.

The dean of the Institute of Agriculture, Sherwood O. Berg, will give a welcome address on the first day of the meetings. On following days participants will hear from George O. Lethert, district director of the Internal Revenue Service in St. Paul, and Rolland F. Hatfield, Minnesota's commissioner of taxation.

The short course is being dedicated to the memory of the late William G. Burkman, deputy tax commissioner of Minnesota, who died this year.

The fee charged to participants will be \$12.50 for the three day course or \$10 for attending on Tuesday, Oct. 22, and Wednesday, Oct. 23.

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October 3, 1963

Immediate release

HOUSTON COUNTY YOUTH NAMED 4-H LIVESTOCK ACHIEVEMENT WINNER

Dean Myhre, 19, Caledonia, this week was named winner of the state 4-H livestock achievement award for 1963.

The award, presented at the 45th annual Junior Livestock Show banquet at the Hotel St. Paul, is based on overall excellence in 4-H livestock projects, knowledge of animal production and management principles and community leadership.

Dean started his livestock work in 1954 with two beef animals and one hog. Today, he has a herd of 50 beef cattle, 9 breeding hogs and 55 feeder pigs.

Earlier this week, Dean exhibited the grand champion hog--a home raised Hampshire--at the Junior Livestock Show.

Dean has been a 4-H member for 10 years, has exhibited at the Junior Livestock Show six times, has been a junior leader for three years and president of his county's largest 4-H Club for two years.

In Houston County competition this year, Dean exhibited the champion steer, champion barrow and reserve champion gilt and won the hog showmanship contest.

Dean was presented at the banquet with a trophy and a \$100 bond from the St. Paul Union Stockyard Company. Second place achievement winner was Tony Burke, 20, Blooming Prairie, who received a \$50 bond. Third place and a \$25 bond went to Colin Aune, 17, Hendricks.

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Misc
10/7/63
Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
October 7, 1963

To all counties

4-H NEWS

Immediate release

4-H BENEFITS
OFFERED TO
NEW MEMBERS

Want to have fun while you gain useful skills? Want to train your talents and develop your personality? Want to build character and good citizenship?

If you are between 9 and 21 years old, you may become a 4-H Club member.

Whether you live in town or in the country makes no difference -- 4-H is geared to all young people.

A requirement of membership is to carry a club project. Members have 25 projects to choose from -- a wide enough range to satisfy the interests of any young person. A project is a planned activity in which 4-H'ers learn by doing. Each project has activities geared to different age levels.

Many projects are as well suited to youth living in cities as in rural areas and offer the same fun and benefits, says _____. Automotive, photography, radio speaking, electricity, entomology, town and country business are just a few. Boys and girls who do baby sitting will find the home improvement project fits their interests, since baby sitting is one of the phases of the project. If you have wanted to build a ham radio, you can do it in the electric project.

Girls may want to expand their interests around the home. Through experience in meal planning and preparation, canning and preserving, home improvement, clothing and home furnishings, 4-H girls develop new hobbies, find vocations, and get a head start in becoming successful homemakers.

-more-

add 1 - 4-H benefits

The boy interested in livestock can choose projects in beef, dairy, sheep, swine, poultry, rabbit, horse and dog. Raising a garden, caring for the home yard and participating in forestry and soil conservation are other popular activities for Minnesota 4-H'ers.

All members are encouraged to exhibit and demonstrate their skills. In addition to gaining personal satisfaction, they may win scholarships or other awards. Representatives from each county attend the State Fair and the Junior Livestock Show. Other outstanding 4-H'ers are selected for conservation and health camps at Itasca State Park, the Junior Leadership Conference and special trips.

Boys and girls interested in becoming 4-H'ers should contact a local club leader or county extension agent as soon as possible to get in on all the events of the club year.

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St. Paul, Minnesota 55101
October 7, 1963

To all counties
ATT: HOME AGENTS
Immediate release

STREAMLINE COOKING
CENTER TO SAVE
TIME, ENERGY

When the utensils you need at the range are stored half way across the kitchen, reorganizing your storage can mean a substantial saving of time and energy for you at the cooking center.

One of the best ways to reorganize equipment in the cooking center is to plan several menus, then list equipment that is required and plan your organization accordingly.

In organizing any work center in the kitchen for most efficiency, it's important to follow certain principles, according to Mary Muller, extension home improvement specialist at the University of Minnesota:

1. Store equipment in the area where it's used most often.
2. Store often used items within easy reach. For example, you may find it most convenient to have the cooking pans you use for vegetables on the upper shelf of the bottom cupboards near the range, with the serving dishes on the bottom shelf of the upper cupboards. Knives, a spatula, measuring cups and spoons could hang on a rack to the side of the range or at the back. Since stooping and stretching require more energy, store less used utensils on the lowest and highest shelves.
3. Have duplicate items at several places -- for example, a set of measuring spoons and cups, a utility or large paring knife at both cooking and mixing centers.
4. Fit storage to the articles being stored. If there's a do-it-yourselfer in the family, he could make vertical partitions for storing covers, platters or skillets, could add shelves, half shelves and door racks and could make shelf heights adjustable to fit cooking equipment. It's also possible to buy special dividers for drawers as well as shelves.
5. Remove seldom-used items. Most kitchens have equipment which is rarely used. If you haven't used some pieces of equipment for the past two weeks, store them elsewhere, perhaps in the basement where you can get them when you need them but where they won't take up storage space needed for utensils in daily use. If after a time you find you need to retrieve a piece of equipment, store it in the place where it will be used most often.

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To all counties
Immediate release

IN BRIEF.....

Continuing education is vitally needed in the dairy industry, according to S. O. Berg, dean of the University of Minnesota's Institute of Agriculture. He recently told a dairy industry organization that these needs include: (1) More basic education in the underlying relationships of a creamery operation, in the total economic area it serves; (2) Promotion of the production of quality milk through knowledgeable field men and haulers; and (3) A better understanding of dairy processes and trends.

* * * *

Overplanting wheat allotments for the 1964 crop can reduce a farm's future allotments, according to extension economists at the University of Minnesota. A provision of a 1958 law states that when no marketing quotas are in effect, farms exceeding allotments will receive that year's allotted acres as history for future allotments. Complying farms receive their base acreage as history. Suppose a farm has a 100-acre base and a 1964 allotment of 60 acres. If a farmer complies with his allotment, his wheat acreage credit for 1964 will be based on the 100-acre history. But if he exceeds his allotment, he will be credited with only 60 acres in computing his 1966 allotment. See the local ASC office for further details.

* * * *

Minnesota's population is becoming more "home-grown." The 1960 population figures show a total of only 4.2 percent foreign-born, compared with roughly a fourth in the first decade of this century. The proportion of foreign-born urban persons decreased from 11.8 percent in 1910 to 3 percent in 1960. However, the proportion of rural foreign-born has decreased much faster, from 27.8 percent to 1.2 percent in the same period. In other words, either foreign-born migrate more to urban centers or Minnesota's immigrants are primarily urbanites, according to John D. Photiadis, rural sociologist at the University of Minnesota.

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October 7, 1963

To all counties
(4th in a series)

Immediate release

BEEF CATTLE OUTLOOK
TO IMPROVE SLIGHTLY;
STILL BELOW AVERAGE

Beef men have brighter prospects than a year ago, although they can still look for cattle feeding returns to stay below average in 1963-64.

This outlook for a slight improvement is based on a predicted increase in slaughter prices for next year and lower feeder cattle prices this fall, compared to last year.

Extension economists at the University of Minnesota say the major expected difference in slaughter prices for 1964 is for less of a drop in the May-June period. Price averages in those months of 1963 fell to about \$23 per hundred pounds for choice cattle, a full dollar under the March-April period and \$1.50 below July-August.

Such a sharp drop is not expected to occur next spring.

The beef cattle industry is currently in an expansion phase, with the total increase being about 15 million head since 1958. The economists expect a record high of 106.5 million head in the nation in January, 1964.

Marketings of fed cattle will remain heavy for the rest of 1963, according to the most recent reports of numbers of cattle on feed. Marketing intentions of feeders in 28 major beef states are 14 percent above year ago levels for the October-December period.

Prices for slaughter cattle this fall and early winter are expected to run \$3 to \$5 below the same period for 1962, when prices were \$29 or better for choice animals.

-more-

add 1 - beef cattle outlook

Feeder cattle prices are now about \$2 per hundred less than last year, for both steers and heifers. One reason is that range conditions are worse than a year ago, although winter feed supplies are adequate except for the severe drought area centered in Colorado.

The economists say the largest calf crop since 1955 is in prospect for this year -- 2 percent above 1962. This increase will be partially offset by larger holdings of heifer calves for herd replacements.

Enthusiasm of both feeders and creditors in the corn belt has been dampened by low returns from steer feeding during the last year. Returns to calf feeders will also be low enough to suggest caution, say the economists.

Feed supplies will be up somewhat from levels of a year ago.

With lower feeder cattle prices, some increase in feed costs and slightly higher fed cattle prices, the economists conclude that beef profit prospects appear much better than the loss to near-loss situation of the past feeding year.

Prospects for yearling steer programs are fair to good, and good labor returns appear possible from well-managed calf feeding programs.

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To all counties
(3rd in a series)

Immediate release

DAIRY PROSPECTS
TO CHANGE LITTLE
IN COMING YEAR

Dairy farmers can expect no drastic price changes in 1964.

This prediction, according to extension economists at the University of Minnesota, is based on the assumption of no increase in supports and slim possibilities for new legislation.

The average milk price in July, 1963, was \$3.08, compared with \$3.07 a year earlier.

Consumption of dairy products per person in 1963 apparently will be close to 1962 levels, according to the economists.

Milk production in 1963 isn't expected to reach last year's level. About 1.5 percent more dairy products were used on the commercial market in the first six months of 1963 than the same period a year ago. Butter purchases by the CCC were down by 65 million pounds from the same period in 1962.

However, butter purchases were still above that period for all other years except 1953 and 1954.

Milk production in the U. S. in the first 7 months of 1963 was 65.6 million pounds, or .8 percent below those months in 1962. Production for all 12 months of 1963 is not likely to reach last year's level.

The outlook on dairy steers is good for the next couple of years. The economists point out that with the high current interest in feeding out plainer cattle, much of the profit in dairy steers will be bid into raising of calves up to 700 pounds.

Therefore, in deciding whether to sell as yearlings or feed out to slaughter weights, a dairyman should take a careful look at expected prices, feed supplies and facilities.

Prices on common grade yearling steers are expected to center between \$18 to \$20 this fall. Standard fed steers tend to bring \$4 to \$5 below choice grade. Therefore, standard prices for dairy steers should range between \$17 and \$20 during the coming year.

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To all counties
(5th in a series)

Immediate release

SHEEP AND LAMBS
IN 1964

Returns from well managed sheep flocks in the year ahead should be above 1963 levels, but the outlook is dimmer for lamb feeders, according to extension economists at the University of Minnesota.

Sheep numbers are expected to drop between 2 and 4 percent below the 1963 inventory. This reduction in inventory, coupled with a 3 percent reduction in the 1963 lamb crop, tends to brighten the outlook for the 1964 native ewe flock.

Labor income to lamb feeders, however, is expected to be somewhat lower in 1964 because of strong feeder lamb prices and slightly lower slaughter prices. Feeder lamb prices are being held high because owners of native flocks are holding back on their lambs.

The economists also point out that the slaughter of 1963 spring lambs and commercial sheep will be below the 1962 level by four to seven percent. Consequently, some build-up in sheep numbers is expected. However, this build-up isn't expected to be enough to increase slaughter in 1964.

The overall view by the economists sees a reduction in slaughter and some demand improvement for spring lambs in 1964.

Feeder lamb prices are expected to remain strong the rest of this fall, and could increase slightly as better conditioned lambs reach the market.

Choice slaughter lamb prices are expected to be about the same during the first quarter of 1964 as in 1963 -- about \$19.50 per hundred pounds, at the Omaha market.

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St. Paul, Minnesota 55101
October 7, 1963

To all counties
(2nd in a series)

Immediate release

HOG PRODUCTION
LOOKS PROMISING
FOR GOOD OPERATIONS

Profit prospects for hog production in the coming year are fair to good, say extension economists at the University of Minnesota.

They see little reason for producers with sound operations to check out of the hog business between now and mid-1964.

Price trends in slaughter hogs in recent months have been lower than in 1962. Hog slaughter was somewhat heavier than during the previous year -- about 5 to 7 percent greater for the first 9 months of 1963.

Although hog prices have been rather good, costs have also been high. Therefore, the "hog-corn ratio" was less favorable than last year during the first months of 1963. This ratio averaged about 14 during the first 8 months of 1963, compared with 16.1 the year before, and 16.6 two years ago.

A hog-corn ratio of 14 means that 100 pounds of pork is worth the equivalent of 14 bushels of corn.

The September pig crop report indicates that the slight expansion in hog production expected this fall and next spring might not materialize. This year's summer farrowings were only 2 percent greater than a year earlier. And the planned fall farrowings are for about 3 percent less than a year ago. Apparently, the low prices in feeding ratios during the breeding season last spring led many producers to go easy on expansion this fall.

During the fall breeding season, the hog-corn ratio should be above 15. This should give some producers the incentive to increase production slightly, although not as much as during the past 2 years.

-more-

add 1 - hog production

The economists expect hog prices to turn downward during the coming two or three months. They expect the average for barrows and gilts on 8 markets to be about 6 percent below last year. The low will probably occur in late November or early December, somewhere between \$14.50 to \$15.00.

For the first three months of 1964, the pig crop should be up about 3 percent, because of an increase in farrowing between June and August of this year. Yet, prices should strengthen some, the economists say, since they expect some improvement in demand during the first half of 1964. Most of this improvement will come through higher prices for competing meats.

The economists expect as high a market in early 1964 as occurred in 1963.

The most improvement in hog prices of all, compared to 1963, are expected during the April-June period of 1964. If the projected 3 percent decrease in fall 1963 farrowings actually materializes, hog prices could show marked improvement next spring. However, the economists expect a slight increase in the farrowings this quarter.

Intentions of hog producers for next December and February farrowing indicate that the outlook for July to September of 1964 will be equally as bright as a year earlier. Prices at that time should be only slightly lower than the same period of 1963.

Summing up, the economists say that in a well managed hog operation all production costs (about \$15.00 per hundred pounds) should be more than covered by all hogs farrowed between now and next summer. With modest increases in farrowings in prospect, the profit prospects look better than corresponding periods this year.

The economists advise that it pays to cut back on hogs only when prices are not expected to be higher than the market value of feed, out of pocket cash costs and a reasonable value on labor and management. Direct costs, apart from your own labor and management, usually run about \$11.00 per hundred pounds.

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To all counties
(1st in a series on
outlook)

Immediate release

AGRICULTURAL INCOME
TO DROP SLIGHTLY

With little change in cash farm receipts but heavier farm production expenses, net farm income for 1963 is expected to be under the \$12.6 billion level of last year, according to extension economists at the University of Minnesota.

Behind this general prediction are these facts:

* Demand for farm products increased in the first half of 1963 because of rising population and rising incomes.

* The increased demand for food was matched by increased food supplies, resulting in little change in farm prices.

* Lower livestock prices have been just about offset by higher crop prices.

The increase in cash receipts, 2.5 percent, was largely due to increased marketings.

The first 6 months of 1963 saw a surge of general economic activity, the economists point out. Consumer expenditures were up \$17 billion for goods and services (especially automobiles) which, along with increased government purchases, gave rise to a \$27 billion increase in gross national product over 1962.

This heavy economic activity seems to be softening somewhat now, however. Automobile demand may continue high, but somewhat weaker than a few months ago.

Consumption expenditures in general will continue to rise in coming months, but at a more moderate rate than in the past year, the economists say.

Investment outlays by business are expected to be strong in coming months. More liberal depreciation rules and tax credits seem to have stepped up capital outlays, about 5 percent up from 1962.

Gross national product (GNP) is likely to exceed an annual rate of \$590 billion by year's end. This is a moderate increase over last year, and isn't likely to improve the overall unemployment, which is running at about 6 percent.

add 1 - general economy

The unemployment level makes it difficult for persons leaving farming, or underemployed in agriculture, to get nonfarm jobs.

The balance of payments problem may contribute to the uncertainty of business expansion, the economists believe. The Federal Reserve recently raised the discount rate from 3 to 3.5 percent, to raise short-term interest rates and discourage the outflow of short-term capital. However, manipulating short-term rates without affecting bank reserves could mean a problem. Failure could lead to contracted economic activity.

Other tools might be found for coping with the balance of payments problem. The administration is proposing an interest equalization tax intended to raise the cost of borrowing. Other measures might include reduced foreign military expenditures, less foreign aid, and limits on tourist expenditures.

None is simple, and all could have serious consequences if improperly applied.

On the other hand, the economists say, continued expansion of sales of goods and services abroad could help alleviate the problem.

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MSC
9/27/63
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October 8, 1963

Immediate release

ROSEAU COUNTY COMPLETES OSEDP: ANALYZES RESOURCES, POTENTIAL

What does the future hold for a Minnesota county that lost a fourth of its farms and a sixth of its population in the last decade--but where agriculture is still a major enterprise?

People of Roseau County on the Canadian border in northwestern Minnesota are putting together their own answers to that question.

Roseau is the most recent of about 10 Minnesota counties to complete an Overall Social and Economic Development plan (OSEDP), according to Skuli Rutford, director of the University of Minnesota Agricultural Extension Service.

The OSEDP is an integral part of Rural Areas Development activities for diagnosing rural problems and developing understanding of these problems and possible solutions among local people. The Roseau report was written by about three dozen local people, in cooperation with William Provance and Wayne Carlson, county agent and assistant agent, respectively, in the county.

The OSEDP of Roseau County is a searching look at the past, present and future potential of the local economy, and illustrates the analysis people must make to take stock of their natural and human resources.

Major problems of the county, the report states, include declining opportunity in farming, lack of industrial employment, and need for more education and training.

On the positive side, the county finds itself with a promising future in the tourist and recreation business, with good potential for new industry and some ways to upgrade agriculture.

Roseau County, formed in 1894, used to depend on grain farming and lumber production. Its population reached a high of 15,000 in 1940 and declined to just over 12,000 in 1960. Farm numbers peaked at 2400 in 1940, but number under 1700 now.

Meanwhile, average farm size increased from 239 acres 20 years ago to about 320 today.

(more)

add 1 -- Roseau County OSEDP

With changing times, Roseau County farmers shifted their businesses. They began after World War II to rely less on grain and more on livestock as the major source of income. In 1959, for the first time, livestock farms in Roseau County outnumbered cash grain farms. More and more grain land had gone into the soil bank.

But there was improvement. While milk cow numbers went down after 1955, production per head shot up--by nearly a thousand pounds per cow per year. Hog raising efficiency increased as farmers improved their production methods.

The usual shift in poultry occurred, too. In 1959, there were little more than a third as many poultry farms in the county as in 1940. But poultry sales per farm were more than 40 times greater than 20 years ago.

Labor opportunities in farming declined. Mechanization replaced much hand labor, and Roseau County people expect this trend to continue. More than 45 percent of the farm operators were doing off-farm work in 1960, compared to under 30 percent 20 years earlier.

While agricultural employment dropped, number of persons in manufacturing in the county increased--but not enough to absorb all those leaving farms.

The average age of farm operators is increasing, meaning that land will continue to become available as present owners retire. But larger capital requirements needed to start farming will continue to deter new young men from farming, the report writers said.

Most industry in Roseau County is new and locally-developed--including a building products plant and a mechanical equipment firm. Capital needs were cited by the local people as one problem in developing further industry. Location sites, power, and available labor tend to favor industry, although the OSEDP report sees a need for retraining many people for industrial skills.

The past decade has seen an encouraging beginning in the tourist and recreation industry in Roseau County. The report observes that there were no cabins, motels, or reliable plane services for tourists there in 1948. Now, there are several resort facilities and good water and air transportation.

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4-H'ERS TO TOUR SOIL CONSERVATION SITES

Because of their achievements in soil conservation projects, eight Minnesota 4-H'ers have been selected for a tour of areas in Minnesota and Wisconsin to view conservation practices Oct. 14-15.

The eight winning club members, as announced by Wayne Bath, associate state 4-H Club leader at the University of Minnesota, are Weston Belz, Stillwater; Ken Bezdicek, Jackson; Dianne Dullinger, St. Joseph; Lloyd Jacobson, Hastings; Alyce Kalina, Lowry; Eugene Larson, Springfield; Suzanne Sowibeck, Jackson; and Lynn Storlic, Lakeville.

The tour is sponsored by Northern States Power Co.

Following luncheon at the Francis Drake Hotel, Minneapolis, Oct. 14, the group will hear talks by G. R. Cochran, state supervisor of agricultural education; Edward Spethmann, area power sales manager, Northern States Power Co.; and Paul Burson, professor, Department of Soil Science, University of Minnesota.

The 4-H'ers will tour the Black Dog Steam Plant near Minneapolis Monday afternoon and then travel to LaCrosse, Wis. Tuesday's activities include visits to the Coulee Experimental Forest, Lake States Forest Experiment Station, LaCrosse, and the Old Hickory Orchard, La Crescent. The group will also view soil terraces, detention dams and a variety of other soil conservation practices in Houston County.

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63-286-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 8, 1963

Immediate release

FARMINGTON MAN TO HEAD 4-H PEACE CORPS IN URUGUAY

Richard R. Angus, Farmington, will become head of the 4-H Peace Corps Project in Uruguay on Oct. 26.

Angus will supervise 18 Peace Corps volunteers. They will be joined later by a second group now being trained. It includes three Minnesotans: Keith Aho, Cook; Donald Holec, New Prague; and Marilyn Myerchin, Crookston.

The purpose of this 4-H Peace Corps project is to expand and strengthen the MJA Clubs of Uruguay, a rural youth movement similar to the 4-H clubs of the United States. Volunteers will work closely with people of rural communities to establish new clubs and improve old ones. Through the MJA program, young Uruguayans develop leadership skills. Their projects are educational and profitable not only to themselves but to their entire communities.

The National 4-H Foundation conducts the project under contract with the United States Peace Corps. Similar projects are also under way in Brazil and Venezuela.

Angus and the volunteers were trained in Puerto Rico, Washington, D.C., and at Iowa State University.

Angus has a background of experience with 4-H Clubs and the Agricultural Extension Service. For 11 years he was an active 4-H member in Dakota County. He spent the summer of 1956 in Italy under the International Farm Youth Exchange. Before going into the Peace Corps, he had served as assistant extension agent in Olmsted County for six years. He holds a bachelor's and a master's degree from the University of Minnesota.

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63-285-jbn

MSC
10/2/63

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 10, 1963

Immediate release

BEEF, APPLES AMONG GOOD FOOD BUYS

Beef is back at the top of the list of meat values consumers will find in markets this week.

Round steak, sirloin, T-bone steak and standing rib and rump roasts are cuts being featured, according to Mary Ryan, extension consumer marketing specialist at the University of Minnesota.

Chicken is in ample supply--especially broiler-fryers--and prices can be expected to remain reasonable throughout the fall, Miss Ryan says.

Locally grown cauliflower, carrots and squash--acorn, buttercup and Hubbard--are good buys in the vegetable section. Cauliflower is of especially high quality. Green onions and radishes are still available, although the local season for these vegetables is nearing the close. Pumpkins are beginning to come to markets and abundant supplies are expected soon for Hallowe'en and for pie making.

Look for good buys in apples during National Apple Week which continues through Oct. 19. Midwest apples--from Minnesota, Wisconsin and Michigan--are in the stores now and available at fruit stands. Most varieties are selling at reasonable prices. In small quantities, apples sell from about 12 to 15 cents a pound. You'll be able to get lower prices by buying apples in cartons or in bushels.

Supplies of Thompson seedless grapes may be on the wane, since the crop has been damaged somewhat by unseasonably early rains in California. Good quality Red Tokays are still plentiful, however, and low priced.

Consumers will be able to find more fresh grapefruit and oranges in local stores as the season progresses, though the fall citrus crop in Florida is small as a result of last winter's freeze. Some supermarkets will be featuring these fruits at very little above cost to attract customers.

Special fall sales on canned foods are featured at many stores this week. Peaches, corn, tomato juice and stewed tomatoes are the best values, but prices somewhat below average can be found also on canned pineapple, fruit cocktail and peas.

Look for good buys, too, on 10- and 25-pound sacks of all-purpose flour, soda crackers, margarine and catsup.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 10, 1963

Immediate release

SUCCESSFUL FARM OPERATION SHORT COURSE

A "Successful Farm Operation" short course program will be offered by the West Central School of Agriculture on the campus of the University of Minnesota at Morris starting Jan. 6, 1964.

The course, which will run for 40 days, is sponsored by the University's Institute of Agriculture and will be conducted by the Department of Agricultural Short Courses.

"Successful Farm Operation" is designed to assist students in learning more about the integral parts of a farm unit and principles of successful farm operation. Various phases of agriculture, including crops, soils, horticulture, livestock production and breeding, farm records and machinery and equipment will be studied as a combined pattern of the successful farm unit in modern agriculture.

Registration is open to high school graduates or men 18 years of age or older who have the capacity to carry the required course work. Registration will take place Jan. 6, from 8 a.m. to 12 noon in Room 209, Engineering Building at the West Central School and Experiment Station, Morris.

Estimated cost of the course is \$47. Out-of-state students will have to pay an additional \$40.

Student housing will be available in private homes in the vicinity. Information regarding housing may be obtained by writing to Ralph Smith, superintendent of the West Central School and Experiment Station. Meals may be obtained in the Campus Dining Hall. Total estimated expenses for room and board should be about \$135.

A certificate of accomplishment is awarded upon successful completion of the short course.

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63-290-w1b

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 10, 1963

Immediate release

FARM INCOME TAX SHORT COURSE

Retirement income credit for self-employed farmers and new rules for travel and entertainment expenses will be among the topics presented at the 21st annual Farm Income Tax Short Course sponsored by the University of Minnesota's Institute of Agriculture on Oct. 21, 22 and 23.

The short course, conducted by the Department of Agricultural Short Courses and sponsored by the Agricultural Extension Service and the Department of Agricultural Economics, will be held in the main ballroom of the Hotel Lowry in St. Paul.

The program will be devoted to the fundamentals of filing state and federal income tax returns. It is especially designed for those who want assistance in the preparation of returns, or would like to review and check procedures.

The dean of the Institute of Agriculture, Sherwood O. Berg, will give a welcome address on the first day of the meetings. On following days participants will hear from George O. Lethert, district director of the Internal Revenue Service in St. Paul, and Rolland F. Hatfield, Minnesota's commissioner of taxation.

The fee charged to participants will be \$12.50 for the three-day course or \$10 for Tuesday, Oct. 22, and Wednesday, Oct. 23.

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63-289-wlb

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 10, 1963

Immediate release

GROWTH IN FOREST PRODUCTS IN MINNESOTA

The "Estimated Value of Forest Products Harvested in Minnesota in 1962" reflects a healthy growth in northern Minnesota. According to this report of the Forest Industries Information Committee, the forest products total value of \$245 million represents a gain of approximately \$3 million over 1961 and a new high.

The paper, wood fiber board and packaging segment represent some \$201 million of the over-all total product value. An increase of \$3 million in payments to the mills to employees in the form of wages, salaries and fringe benefits, brought over \$62 million such compensation to some 9,000 employees of nine companies and 12 mills.

About \$29,300,000 was paid by these mills for pulpwood and wood pulp; over \$58 million for other materials and supplies; and over \$21.9 million for transportation. Over \$12 million was paid by the industry in taxes, supporting government services to the public. These Minnesota mills marketed over 875,000 tons of products throughout the world.

Noteworthy gains were made in spite of a highly competitive year. The companies continued to invest in new machines, equipment and facilities to the extent of some \$11 million, and such expansions since World War II have resulted in over 3,400 new jobs in the industry. The basis for this growth has been modern forest management in which more timber is grown than is used, allowing further expansion by existing mills as growing markets permit.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 14, 1963

*For release at noon, *
*Tuesday, Oct. 15 *

IMPORTANCE OF EDUCATION TO MINNESOTA'S FUTURE STRESSED

PARK RAPIDS--Decisions regarding agricultural education will have a major bearing on the kind of communities and state we have in the future, the dean of the Institute of Agriculture at the University of Minnesota said today.

Speaking before the annual meeting of the State Grange, Berg emphasized the value of education to youth, young farmers, established commercial farmers, agribusiness and rural communities.

"Future educational decisions," he said, "should not be based on economics alone, but should reflect a genuine concern for past and present trends in political, religious, and family patterns of activity as well."

He urged that rural youth know of the knowledge and skills required for successful farming and be aware of "nearly limitless opportunities" in agribusiness careers.

He pointed out that agribusiness employment rose 130 percent in Minnesota between 1938 and 1959, while employment in other occupations rose 40 percent.

"Last year in the Institute of Agriculture," he said, "we had four vacancies for every graduate seeking employment in agriculturally related business. Agribusiness was forced to recruit people without a solid foundation in agriculture."

Berg reviewed trends in agriculture and the implications of these trends for education. "In 50 years," he said, "our nation has released some 19 million people from the production of food and fiber for work in other occupations.

"One man now provides enough food and fiber for himself and 27 others. Education and research produced techniques and labor-saving equipment which have accomplished production miracles.

"We spend a decreasing fraction of our spendable income for food," he said and added that "our standard of living has been unsurpassed in this or any other century."

In the future, Berg said, the number of farms in Minnesota will continue to decrease--having dropped already by 26 percent since 1940.

(more)

add 1 -- speech by Berg to Grange

"We need to reduce the amount of farm labor to achieve a balance in an industry which continues to produce 6 to 8 percent more than current demand," he said. He predicted that more people will move from farm to town for better job opportunities.

Rural communities will change, he continued. "Where people once limited themselves to a buying trip in a 5 to 10-mile radius, families in the future may drive as much as 50 miles for goods, services and recreation."

Community competition for the consumer will increase, Berg said. Communities which provide the services rural people demand and expect will become service centers for larger areas--centers of education, shopping, medical services, processing and manufacturing.

All these trends have crucial importance for education, Berg said.

Young farmers, he said need far better educational preparation than farmers have had before. A successful full-time farmer, he said, must be a manager in all respects.

"He must understand applied genetics and animal nutrition. He must be able to use agricultural chemicals with precision. He must understand the economic environment in order to gain a fair price for his products."

Also, Berg said, the farmer "must relate the role of government to agriculture and rural life," and "must appreciate his role in a national and international market."

Established commercial farmers and rural homemakers must be encouraged to use management aids and technical information which is now available to them, said Berg. "They must be made aware of the need for continual re-evaluation of their enterprises."

Similarly, he said, those in agribusiness enterprises must be kept aware of technological advances, must know changes in buying patterns and consumer preferences, and "must share responsibility for the economic health of the immediate area in which they operate as employers and processors of food and fiber."

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 14, 1963

Immediate release

MINNESOTA FARM FIRE LOSSES TOTAL \$2.8 MILLION IN 1962

Fires accounted for a \$2.8 million loss to Minnesota farmers during 1962, according to Glenn Prickett, extension farm safety specialist at the University of Minnesota.

Prickett says the State Fire Marshal's report shows that this loss involves 580 different farm fires. A total of 18 lives were lost in fires.

Farm fires accounted for about 11 percent of the total fire losses in the state for 1962, Prickett says. These losses, he says, point to the importance of National Fire Prevention Week, Oct. 6-12.

The two most frequent types of farm fires reported in Minnesota during 1962 were barns, 232, and dwellings, 134. Other common types were tractors, 46; hay and straw, 32.

The most frequently reported fire causes were inadequate, defective or misused electrical equipment; defective or misused heating units other than electric; rubbish and grass fires; defective chimneys; lightning, careless smoking; sparks from tractors; careless handling of gas and oil and spontaneous combustion.

Prickett urges rural people to take several steps to prevent fires.

- * Have electrical systems inspected by qualified electricians.
- * Inspect, clean, and repair heating equipment before winter sets in.
- * Remove rubbish from basements and attics of houses and other buildings. Burn the rubbish away from buildings on a still day.
- * Keep tractors clear of trash and store them where they won't endanger other buildings or equipment.
- * Store liquid fuels at least 40 to 75 feet from buildings, and stop tractor engines before refueling.
- * Keep approved fire extinguishers, CO₂ or dry powder, in handy locations around the farm.

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63-293-pjt

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
October 14, 1963

To all counties
Immediate release

PROFIT: IS IT
A MAJOR FACTOR
IN FEED PROGRAM?

How will you decide whether to sign up for the 1964 Feed Grain Program?

According to how it might affect your pocketbook? Its affect on your economic security?

Or will your decision be cinched by your general attitude toward this kind of farm program?

Actually, farmers use a variety of measuring sticks for sizing up the Feed Grain Program. Profit is one standard, but not the only one. It may not even be the most important.

In a survey of 133 farmers in southwestern Minnesota last winter, only a fourth mentioned "expected effect on size of income" as the major reason for their decision to participate in the program. Slightly under a third listed security ("desire for more certain income") as the deciding factor.

Paul Hasbargen, University of Minnesota extension economist who did the survey, makes a sharp distinction between farmers deciding on expectation of more income and those mentioning more certain income. The first is a size of profit consideration, and the second is a matter of security.

A solid one-third of the farmers listed "attitude toward the program" as the most important consideration.

So to many farmers the income idea apparently isn't important at all--at least not in the sense of making more money. A full one-fourth said they didn't consider income when they decided on the 1962 program. In addition, about three in ten said they had expected their choice to have "no effect" on income.

add 1 - feed program

Next, Hasbargen took a closer look at the farmers who did consider the effect of the program on income to see how good a job they did of it.

He estimated whether farmers who participated actually made more profit as a result in 1962. And for non-participators, he estimated whether taking part would have increased profits.

He based his estimates on the farmers' actual cost of corn production, and actual yields of corn on the farms plus average labor costs. He assumed a price advantage of 10 cents per bushel of corn under participation.

According to Hasbargen's findings, 60 percent of the farmers who had considered the income effect had come to an "incorrect" expectation. Hasbargen figured that of 98 farms he analyzed, 30 could have had increased income (or did have), 27 decreases, and 41 no effect.

The farmers tended to err in estimating an increase in income where it didn't occur or wouldn't have under participation.

One reason for the "incorrect" expectations is that most farmers didn't look at both costs and returns from participating. Another source of error was lack of knowledge about corn production costs.

About 88 percent of the farm operators, Hasbargen's data shows, either saved or could have saved no more than \$15 per acre through participation. However, 59 percent estimated their savings to be higher than that.

In conclusion, Hasbargen says the study suggests that other considerations may be as important as the profit motive to farmers examining alternatives in public programs. Attitudes and security aspects may be major factors. Also, for farmers who do consider the economics of such a program, there is a need for more analytical information in making decisions.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
October 14, 1963

To all counties
ATT: HOME AGENTS

veneers make
possible more
beauty in furniture

Forty years ago homemakers bought furniture in spite of its veneer construction. Today you're buying it because of its veneers.

Just what is a veneer?

Veneers consist of thin sheets of fine-grained wood -- mahogany, walnut, rosewood and others -- glued together under great pressure to a core of strong but less expensive wood.

The belief that solid wood furniture is superior to veneered furniture is common but not true, according to Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota. Because the grain of each sheet is placed at right angles to the next, the veneered product is stronger than the original wood itself. And modern adhesives and presses insure against cracking, warping and peeling.

Veneers bring handsome graining of high quality wood within the range of every budget. The most striking veneers come from parts of the tree where growth was irregular. For example, "crotch" veneer comes from a fork of the tree. "Burl" veneer is cut from the tree's large wart-like growths. A section of wood from the area where roots meet trunk is called "butt-wood" veneer. "Bird's eye" veneer shows irregularities in maple.

Nearly all large, flat furniture surfaces are made of veneers, but you will find solid wood parts on all veneered furniture. The solid wood is used for areas that need shaping--legs, arms, corner posts and carved sections.

Veneer construction is often used for expensive reproductions of traditional furniture but you may also find it in poorly made items. Be sure to check style, construction and finish when making your choice.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
October 14, 1963

To all counties

4-H NEWS

Immediate release

4-H'ERS LEARN
CONSUMER DEMANDS
IN MEAT PRODUCTION

Tailoring meat animals to fit the new preferences of consumers for lean cuts is one of the lessons 4-H'ers are learning in their livestock projects.

That fat is a "drug on the market" became a meaningful phrase to exhibitors at the recent Junior Livestock Show in South St. Paul.

A livestock evaluation demonstration and contest made exhibitors aware of the importance of producing meat to suit consumers' tastes. Exhibitors saw differences in meatiness and wastiness and obtained an idea of what constitutes a desirable meat-type animal, according to I. T. Omtvedt, extension livestock specialist at the University of Minnesota. 4-H'ers in the contest were required to evaluate four steers, four market lambs and four hogs and predict carcass yield and meatiness.

Two steers within the same grade can vary considerably in value of retail cuts, Omtvedt says. One steer grading choice may yield 50 percent of its carcass weight in retail cuts while another choice steer yields only 45 percent. This variation represents a difference of 30 pounds of edible meat between two 600-pound carcasses within the same grade.

Swine producers have made considerable progress in changing the quality of their product within the past few years to more meat and less fat. Junior livestock show exhibitors saw a pig with 2.2 inches of backfat, 2.75 square inches of loin area and 30 percent of its carcass weight in the ham and loin compared with a meat-type hog with 1.4 inches of backfat, 4.61 square inches of loin eye area and 40 percent of its carcass weight in ham and loin. Considering that the meat-type pig had 16 pounds more ham and loin, selling at 43 cents per pound, wholesale, the meaty hog was \$6.88 more valuable than the fat hog in these two cuts alone.

Many of the animals exhibited at the Junior Livestock Show had won in their county shows in July and August but were over-finished by the time of the Junior Show, Omtvedt said.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
October 14, 1963

To all counties

Immediate release

IN BRIEF.....

Feed grains should be in good supply in the coming year. The outlook is for a total supply of 7 million tons above the past year. And a record soybean crop is going to mean more high protein feeds, say extension economists at the University of Minnesota. However, they also expect a further reduction in surplus feed stocks; carryover at the end of the 1963-64 feeding year may equal only 25 percent of the beginning year stocks.

* * * *

Poultry prices aren't likely to show any improvement during the 1963-64 year. That's in spite of the fact that the hatch of egg-type chicks was down from 1962 levels by 1 percent during the first six months of this year, and the January-June hatch of 1964 is expected to be down another 4 percent from this year's levels. Broilers are expected to increase 3 to 5 percent in 1964. Turkey supplies for the rest of this year will be about the same as last fall.

* * * *

Roseau is the latest Minnesota county to complete an Overall Social and Economic Development Plan (OSED) as part of its Rural Areas Development activities. This report, written by a committee of local people, is a comprehensive analysis of the existing situation, inventory of resources and community needs, and summary of recommendations for future action. About 10 Minnesota counties have now completed such reports, according to Skuli Rutford, director of the University of Minnesota Agricultural Extension Service.

* * * *

Fall is a good time for liming, say University of Minnesota soils men, and for these reasons: The lime has plenty of time to dissolve and establish areas of "sweet" soil favorable to early spring growth. Delivery and spreading problems can be avoided. You won't have to worry about soft spring roads if you get the job done now.

* * * *

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
October 14, 1963

To all counties
Immediate release

PROPER GRAINS
INCREASE GAINS

Which grain should you use to creep-feed your beef calves?

Animal husbandmen at the University of Minnesota during the past two years attempted to find the answer. They gave Hereford and Angus calves a choice of various grains.

The calves could choose between whole oats, rolled oats, rolled corn, and whole corn. Each grain was fed free-choice from a creep-feeder divided into different compartments.

Upon analysis of the data, the following results were revealed:

1. Whole oats was preferred over the other grains.
2. Whole corn was preferred over rolled corn during the first 60 days of the feeding trial. No consistent preference was shown after this time.
3. Rolled oats was consumed in very small amounts throughout the entire trial period.

The specialists point out that increased demand for lightweight carcass beef and economical gains of young cattle has favored the fattening of them. However, more economical gains are realized when calves consume larger amounts of palatable feed. Therefore, you should choose the right combinations of grain to use in your creep-feeding program.

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MISC

9.12.1P

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 17, 1963

Immediate release

WAIT TILL FROST BEFORE MULCHING ORNAMENTALS

Don't put the winter mulch on your ornamentals too soon.

Wait till we've had a hard freeze or two and the plants are dormant. That's the word from C. G. Hard, extension horticulturist at the University of Minnesota.

Practically all perennials will benefit from a mulch. It not only protects them from extreme cold but also from the damage that results from alternate freezing and thawing in early spring. And don't forget to mulch the bulbs you planted this fall.

To be effective, a mulch should be 6 to 8 inches deep. Good mulching materials are marsh hay, clean straw and alfalfa hay. If you use straw, break up the bales and shake off the chaff with a fork to get rid of weed seeds. Leaves may be used for mulching, but they must be dry when they are applied. Wet leaves may suffocate the plants.

Continue watering the flower border before freezing weather to assure a plentiful supply of moisture when it is time to mulch the plants.

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63-296-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 17, 1963

Immediate release

COMPETITIVE POSITION OF MINNESOTA'S EGG INDUSTRY

Minnesota poultrymen ask: "Will egg prices and costs ever permit reasonable profits to be earned in this egg business?" Many feed and equipment dealers, hatcherymen and egg handlers ask similar questions, says Carroll V. Hess, agricultural economist at the University of Minnesota.

While egg production has leveled off nationally, production in Minnesota has declined nearly 20 percent since reaching a high in 1955. Even with Minnesota's annual production of 3.5 billion eggs, ranking third in the nation, egg-feed price ratios have been unfavorable according to Hess.

Minnesota's farm price for eggs has averaged 7 to 8 cents below the U. S. farm price. Hess says these low egg prices can be attributed to four factors:

1. The long distance to market for 70 percent of the state's production. Nearby states are also surplus egg-producing areas. So the bulk of Minnesota eggs must travel from 1,000 to 1,500 miles to market.

2. A generally poor reputation for the Minnesota egg. Our eggs have not received a price in the distant market equal to their quality. In spite of general improvements in their quality, the low quality image of the past persists in some distant markets.

(more)

add 1 -- egg industry

3. Loss of earlier established markets in the Southeast. In 1958 Arkansas, Mississippi, Alabama, Georgia and South Carolina were egg-deficit states. However, two years later these states exported 2 million cases.

4. Excessively high cost of assembling and processing eggs for shipment because of many small, scattered, inefficient producers usually results in higher production costs and a lower quality egg.

Disregarding the painful impact on small producers and handlers, the future competitive position of Minnesota's egg industry depends upon the speed with which it adjusts to an industry of fewer but larger flocks and handlers.

Hess indicated greater coordination was needed to meet this competition. With the highly inelastic demand for eggs and a contracting domestic and foreign demand, market supplies must be watched carefully to avoid over production and depressed prices. Surpluses are a symptom of an industry lacking proper coordination between the productive machine and the consuming segment.

The only safe way to engage in producing eggs is to be reasonably certain of a satisfactory market. "In short," Hess says, "we must emphasize 'marketing' our eggs in advance of production rather than producing first and hoping a good market will be available."

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63-295-wlb

Department of Information
and Agricultural Journalism
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University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 17, 1963

(with sketch)

Immediate release

TWO-BEDROOM FARMHOUSE HAS AMPLE STORAGE

A two-bedroom farmhouse featuring plenty of storage space has recently been designed by the U. S. Department of Agriculture.

Of masonry wall construction, it can, if desired, be completed in stages over a period of time.

Storage areas are generous and conveniently located, according to Mary Muller, extension home improvement specialist at the University of Minnesota. To the left of the front entrance is a closet for outdoor wraps. Storage for chore clothes is provided near the rear door in the workroom.

Along the hallway leading from kitchen to the bedrooms are three storage units--one for canned foods, one for cleaning equipment and supplies and, near the sleeping area, one for linens.

The U-shaped kitchen is convenient and has dining space for family meals. Double windows in the dining area and one over the sink provide excellent natural lighting in the kitchen, Miss Muller says. The large living room has space to accommodate groups for company meals.

Plumbing, electric service and heating need to be planned before you start construction. All water and waste disposal piping should be placed and tested before the slab is poured. For a hot-air perimeter heating system, the ducts are cast in the concrete. If you use a hot water system, the piping must be roughed in and tested before the floor is poured.

A descriptive leaflet of plan no. 7155 is available from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101. Copies of the building plan No. 7155 may be obtained for 75 cents from Blueprint Room, Agricultural Engineering Department, University of Minnesota, St. Paul, Minn. 55101. Money must accompany the order for the plan.

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63-294-jbn

STALK ROT AND LODGING OF CORN

Farmers in south central Minnesota report some stalk rotting and brittle plants among their corn. Generally corn is standing well.

The extended warm period has encouraged stalk rot fungi to grow where moisture was adequate in the mature stalks, says Herb Johnson, extension plant pathologist at the University of Minnesota. The dry weather in addition to drying the ears was also making stalks very brittle and subject to lodging in high winds.

Johnson reports the corn harvest is well under way and should continue as long as the present weather holds. However, high winds and storms could cause severe lodging in many fields.

Breakage due to lodging occurs in different places on corn stalks. Some stalks break between the nodes often at spots where no apparent rotting is evident. This is true of slender stalks such as suckers or plants growing in high populations or where root competition is severe. Rotting is prevalent on some plants just above the ground line and results in breakage and lodging at that point.

Often neighboring stalks support these plants. A deterioration at the nodes sometimes results in a clean break right at the node. The exact cause of weakening at this point is not well understood, but may be related to an imbalance in nutrients during the growing season. Nodes near the ground often show a darkened appearance when they are cut through during the growing season. When stalks mature the node area is often more severely rotted than the area between the nodes. There is a likely connection between the early discoloration and the later rotting.

Johnson observed corn plants in many parts of south central Minnesota which showed a pronounced curving of one or two feet of the lower end of the stalk--commonly called "goose-necking." This year the condition was caused primarily by storms during the early and mid summer. The plants were blown down or leaned over. New growth was straight up, but the lower part of the stalks remained bent. Most plants of this type were found to be firm and strong at maturity. In some cases this bending may result in trouble during harvest.

Johnson says, stalk rot will continue on mature stalks as long as temperature and moisture are adequate. Normally the rate of fungus growth is slower at this time of year because of lower temperature. ### 63-297-wlb

MSC
8 A27P

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
October 21, 1963

To all counties
Immediate release

TRACE MINERALS MAY
BOOST PASTURE GAINS

Extra trace minerals may help increase pasture gains.

Research at the University of Minnesota showed that pasture gains have increased when the deficient minerals were supplied.

Minnesota is in a semi-goiterous area where the soil is lacking in iodine.

This problem can be solved by feeding salt containing .007 percent iodine. However, there may be some regions in the state also lacking in some trace minerals, such as cobalt.

University research showed that cobalt bullets administered to steers on pasture increased daily gain per head by .13 pounds. This clearly demonstrated the need for trace minerals when the steers were fed iodized salt.

Further experiments revealed that the addition of cobalt bullets to steers being fed trace mineralized salt had no effect on their pasture gains. Apparently, this salt contains enough trace minerals to meet the livestock's need. It was also shown that pasture gains were similar for steers fed trace mineralized salt and iodized salt.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
October 21, 1963

To all counties
Immediate release

STILBESTEROL CAN BOOST
WEANING WEIGHTS

Stilbesterol implants to nursing calves may add up to extra dollars when you sell them as feeders.

Animal husbandry specialists at the University of Minnesota studied the effect of stilbesterol on suckling creep-fed calves. Calves were implanted with 12 milligrams of stilbesterol when two months old. Their performance was compared to the performance of suckling creep-fed calves that didn't receive any stilbesterol.

Upon accumulation of data over a four-year period, the following results were revealed:

1. Stilbesterol implanted calves showed an average increase of .13 pound of daily gain or seven percent increase in weaning weight over the control group of calves.

2. The performance of the two groups of calves in the feedlot wasn't significantly different. Apparently, the stilbesterol implant had no effect on feedlot performance.

From these results, the specialists concluded that stilbesterol implants on creep-fed suckling calves can be expected to increase their weaning weights without affecting their performance in the feedlot.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
October 21, 1963

To all counties
Immediate release

ENERGY LEVELS
AFFECT PERFORMANCE

Does the energy level of a beef ration affect feedlot performance and carcass characteristics?

An experiment conducted by a group of animal husbandry specialists at the University of Minnesota attempted to find the answer. Previous experiments showed little difference according to levels of energy.

A dozen yearling Hereford steers were fed on each of the following feeding programs: (1) no hay; (2) four pounds of hay; (3) eight pounds of hay.

The steers were fed all the cracked shelled corn that they would clean up twice daily. The "no hay" group was fed a mixed protein supplement whereas the other groups were fed soybean meal. The mineral mixture was fed free-choice.

The specialists report the following results:

1. The average daily gain of the steers fed four and eight pounds of hay was 2.46 and 2.53 pounds, respectively. The "no hay" group gained 2.32 pounds per day. The difference is explained by the lower corn consumption of the latter group.

2. The "no hay" group required 581 pounds of feed per 100 pounds of gain while the four-pound group required 695 pounds of feed for the same amount of gain. The feed required for 100 pounds of gain in the group receiving eight pounds of hay was considerably higher, 840 pounds.

3. Feed costs per 100 pounds of gain were lowest for the steers receiving no hay and four pounds of hay, \$12.23 and \$12.46 respectively. The cost per hundred weight of gain for the other steers was \$13.88.

4. Energy levels in this experiment had little effect on carcass characteristics.

The specialists suggest that you feed the most economical ration, providing it contains enough roughage for the necessary physical balance in the ration.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
October 21, 1963

To all counties
Immediate release

IN BRIEF....

Minnesota's farm price for eggs has averaged 7 to 8 cents below the U. S. farm price, according to Carroll Hess, agricultural economist at the University of Minnesota. He attributes low egg prices to four factors: 1) The long distance to market for seven-tenths of the state's production; 2) a generally poor reputation for Minnesota eggs in spite of their high quality; 3) loss of earlier established markets in the Southeast; and 4) excessively high cost of assembling and processing eggs for shipment along with many small, scattered and sometimes inefficient producers. Hess urges that egg marketing be emphasized in advance of production.

* * * *

Blacktop for barnyards? It makes perfect sense, if it's a top quality job. But extension agricultural engineer D. W. Bates at the University of Minnesota points out that not all blacktop is the same. He suggests a hot-mix, hot-laid asphalt concrete, made from good quality aggregate and straight asphalt cement. He says the best guide for quality blacktop is the requirements set up by the State Highway Department. Bates discusses blacktop barnyard paving in more detail in Agricultural Engineering Fact Sheet No. 10. County extension offices have copies.

* * * *

Specialized hog production may mean specialized feeding. An animal nutritionist from the University of Alberta, Canada, made this point at a recent University of Minnesota conference. He says hog rations need to be fitted to the environment under which pigs are produced. But he believes it unlikely that rations can be formulated so that overall recommendations can be made to apply to all enterprises. What works with outside colony houses may not be appropriate for pigs kept in confinement. * * *

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
October 21, 1963

To all counties
ATT: Home Agents
Immediate release

TRIM, STORE
VEGETABLES
WITH CARE

Fresh vegetables can provide a valuable year-round source of minerals and vitamins A and C for American families, but many of these valuable nutrients are lost before the vegetables are served.

Proper trimming and storing are the first steps toward conserving food value of fresh vegetables, according to extension nutritionists at the University of Minnesota.

Fresh vegetables usually need some trimming, peeling or scraping before they are cooked or served. But when doing such trimming, try not to cut away the parts that have the most vitamins. For example, the outer leaves of head lettuce contain higher concentrations of vitamins than the inner, tender leaves. So use the outer leaves whenever possible. Broccoli leaves have much higher vitamin A value than the stalks or flower buds. If the leaves are tender, cook them with the stalks. To get the most food value from potatoes, cook them in their jackets or keep the peelings thin.

Length of storage, as well as storage temperature and humidity, also affects retention of nutrients in vegetables.

Spinach, broccoli, turnip greens, chard and salad greens should be refrigerated promptly in the crisper or in plastic bags. If cabbage is to be kept for several days, it should be wrapped or put in the vegetable crisper of the refrigerator where humidity is high so it will hold its vitamin C. Carrots, potatoes and other roots and tubers retain their most important food values if they are kept cool and moist enough to prevent withering.

Tomatoes picked before they turn red should be ripened out of the sun at temperatures from 60 to 70°F. If they are firm and ripe, they can be held in the refrigerator for several days without much loss of vitamin C.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
October 21, 1963

To all counties
4-H News
Immediate release

4-H FILLERS FOR
YOUR COLUMN

Despite the shrinking farm population, the number of rural 4-H Club members continues to increase. During the last two decades, enrollment of farm boys and girls in 4-H clubs has more than tripled, according to the Federal Extension Service.

* * * *

Nearly 55,000 4-H members are enrolled in Minnesota in 2,100 4-H clubs throughout the state. About 11,000 men and women are voluntarily giving their time to serve as adult leaders.

* * * *

Every county in Minnesota has among its residents scores of men and women who spent part of their youth working on 4-H club projects. Some live on farms, others in small towns or cities. Yet all have a common bond: they grew up in the 4-H tradition of service to others and "learned by doing" skills they find useful today. There are now more than 23 million 4-H alumni in our 50 states, many of whom are continuing to work with youth.

* * * *

Enrollment in the 4-H entomology project in this country reached a new high of 71,000 last summer. The program is aimed at teaching youngsters to identify and combat harmful insects. The science-oriented 4-H activity has a natural tie-in to high school biology. The project appeals to both city and rural youngsters.

* * * *

Local 4-H clubs provide real-life experience in democratic action involving members, parents, volunteer leaders and supporting groups.

* * * *

Recreation, citizenship, interesting projects, and new skills are all a part of the 4-H program. If you'd like to participate in this worthwhile program, see you county extension agent.

* * * *

msc
9/24/63
Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 22, 1963

Immediate release

PROPERTY TAX SHORT COURSES SCHEDULED

A series of eight Property Tax Short Courses for local assessors will be held around Minnesota in December and January.

Each course will involve three day-long sessions, according to Lewis Kahn, University of Minnesota economist and course coordinator. Courses will be held at Austin, Mankato, Slayton, Alexandria, Thief River Falls, Bemidji, Duluth and St. Paul.

The University of Minnesota Departments of Economics and Agricultural Economics are sponsoring the courses, in cooperation with the Agricultural Extension Service of the University of Minnesota, the Minnesota Department of Taxation, the Minnesota Association of Assessing Officers, the Minnesota Association of Local Assessors, the Association of Minnesota Counties and the League of Minnesota Municipalities.

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.

(more)

add 1 -- property tax short courses

Township and village assessors are invited to attend. A fee of \$10 is charged for each complete course. Persons attending two days of the session will pay \$8. County officials may attend a single day's session as observers for \$4.

Instructors will include county assessing officers, University staff members and officials from the Minnesota Department of Taxation. Topics will include classification of real estate, equalization, re-evaluation, listing of personal property, impact of highway construction on farm values and related subjects.

The complete schedule of courses is:

Austin, Dec. 2, 9 and 16; Mankato, Dec. 3, 10 and 17; Slayton, Dec. 4, 11 and 18; Alexandria, Dec. 5, 12 and 19; Thief River Falls, Dec. 9 and 16, and Jan. 6; Bemidji, Dec. 10 and 17, and Jan. 7; Duluth, Dec. 11 and 18, and Jan. 8; St. Paul, Dec. 12 and 19, and Jan. 9.

Interested persons may contact the Department of Agricultural Short Courses, Institute of Agriculture, University of Minnesota, St. Paul 1.

WJH
WJH

63-300-wlb

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 22, 1963

Immediate release

TEN 4-H CLUBS WIN AWARDS FOR HEALTH ACTIVITIES

Ten 4-H clubs that have stressed well rounded health programs for members and their families have been cited for their achievements in the health project.

Receiving certificates for promoting outstanding health programs locally are the Lucky 13 4-H Club, Aitkin County; Toqua Troopers, Big Stone; Game Birds, Chisago; Cascade Cruisers, Olmsted; Gray Livewires, Pipestone; Cottonwood Shelter 4-H Club, West Polk; Mighty Mites, Redwood; Woodbury, Washington; Bertrum Boosters, Todd; Chisholm Pacesetters, North St. Louis.

Eli Lilly and Co., Indianapolis, gives the certificates as part of a national awards program.

All of the winning clubs had 100 percent enrollment in the health project and stressed health at each meeting through talks or demonstrations. In addition to acquiring desirable health practices, individual members shared in the responsibility for improving the health of the family and of the community. Most of the groups and their families took immunization for polio. Members had physical and dental check-ups, learned the importance of a good diet, practiced good grooming, and posture, took exercises or engaged in sports or other recreation for physical fitness. In one club in which members learned artificial respiration, a 4-H'er put her knowledge to work and saved the life of another girl.

Donations to health drives and building window displays and booths on health were common activities.

Mental health was stressed as an important phase of the all-round program. In most clubs the emphasis was on community service to understand the problems of less fortunate people. Hence club members entertained residents of old people's homes, gave gifts to needy families and to children in institutions, made favors for hospital patients and collected clothing for the needy.

"It takes work, play, good health habits and an understanding of other persons' problems to make a true picture of 4-H health," according to one 4-H leader.

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63-299-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 22, 1963

Immediate release

RAMSEY CO. NAMED WINNER IN 4-H ELECTRIC PROGRAM

Ramsey County 4-H clubs have received top placing in the statewide 4-H electric program for the second consecutive year.

The Ramsey County extension office will receive a plaque citing its record as state winner in the program. Donor of the award is the Westinghouse Educational Foundation, Pittsburgh, Pa.

Two adult leaders in the county will be selected to attend the State 4-H Electric Conference on the University of Minnesota's St. Paul Campus in January.

Eighty members have participated in the electric awards program this year, but a total of 208 members are enrolled in the 4-H electric project in Ramsey County.

A county home shop-electric committee of five, with the assistance of the extension staff, set up a program which included workshop training. Boys and girls in the home shop and other projects were involved in the workshop which emphasized three-wire safety extension cords and shielded trouble lights.

Tours of buildings showing extensive electrical wiring were a part of the program.

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63-298-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 24, 1963

Immediate release

FILLERS FOR YOUR WOMEN'S PAGES

If you're buying a blanket, thickness or depth of nap is one of the characteristics to look for, says Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota. The trapped dead air spaces formed by the nap of the blanket make it warm. Weight is not an indication of warmth.

A child will develop desirable eating habits more quickly if he is comfortable at the table, according to Charles Martin, extension specialist in family life education at the University of Minnesota. A chair that's too high, too low or too far away causes difficulties he can't control.

To keep small rugs in place when cleaning them, run the carpet sweeper or vacuum cleaner diagonally across the rug instead of lengthwise.

Many of the herbs you grew in the garden this year can be preserved by freezing. Mrs. Shirley T. Munson, in charge of the University of Minnesota's food processing laboratory, gives these tips: After washing a few sprigs or leaves, package them by either wrapping in foil, sealing in plastic bags or storing in glass jars. Chives and parsley frozen in this way are handy to have in winter.

If you have a marble-topped table, clean the marble with a dampened soft clean cloth wrung out of warm, mild detergent suds. Rinse, wipe dry and polish with a chamois. Avoid soap, since it leaves a film on the marble surface.

Don't feed the sink with leftover vegetable juices. Use these as part of the liquid in stews and soups.

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63-301-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October

Immediate release

4-H CLUBS GET AWARDS FOR RECREATIONAL PROGRAMS

Learning to play together as well as to work together is one of the achievements of members of 10 Minnesota 4-H clubs which have received special citations for their recreational programs.

The 10 clubs will receive certificates for conducting the best recreational programs among 4-H groups in the state.

The clubs receiving recognition are: Okabena B., Jackson Co.; Waldorf Peppy Peppers, Waseca Co.; Riverside 4-H Club, Norman Co.; Chisholm Pacesetters, North St. Louis Co.; Dovray Headlights, Murray Co.; Ripley Believe It or Not 4-H Club, Dodge Co.; Sabin Work and Win 4-H Club, Clay Co.; Game Birds 4-H Club, Chisago Co.; Jacob Clovers, Anoka Co.; and M and V 4-H Club, Aitkin Co.

All of the groups had organized recreation at each meeting. Ice and roller skating parties, swimming, weiner roasts, bowling, hay rides were some of the special events planned. Some of the groups had soft ball teams which played in a county league. Many of the recreational events included the whole family--Christmas parties, bean suppers, club tours and family picnics and all-family campouts.

"Planned recreation in the club achieved release of tensions and better physical fitness," according to one adult leader. Another important result, she said, was "participation by all members of the club as well as their families."

Certificates to the winning clubs are awarded by John Deere, Moline, Ill.

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 24, 1963

Immediate release

FIVE 4-H CLUBS CITED FOR SAFETY AND FIRE PREVENTION

Five 4-H clubs in Minnesota have won honors for their activities in safety and fire prevention in a statewide contest.

The State 4-H Club office at the University of Minnesota has announced these winning clubs, selected from each of five areas in Minnesota: Lucky Aces, Washington County, central district; Wykeham Willing Workers, Todd County, northwest; Balkan 4-H Club, North St. Louis County, northeast; Eitzen-Be-Square 4-H Club, Houston County, southeast; and Framnas 4-H Club, Stevens County, southwest.

Each club will be given a trip to the National Safety Congress in Chicago Oct. 27-30 for one of its junior or adult leaders. Chosen to represent the groups are: Mrs. Tilford Thompson, Eagle Bend; Mary Jane Ettesvold, Morris; Mrs. Walter Haar, Eitzen; Mrs. Elston Nusich, Chisholm; Karen Krueger, Stillwater.

Trip expenses are provided by the Mutual Service Insurance Companies of St. Paul and Midland Cooperatives, Inc., Minneapolis.

Also attending the congress will be Jacquelyn Stemper, Caledonia; Judy Sigurdson, Albert Lea; John Arneson, Shevlin, selected from their counties for outstanding safety achievements; and FFA members Curtis Mathison, Ortonville, and James Zahn, Faribault. Glenn Frickett, extension safety specialist at the University of Minnesota, will accompany the group.

In each of the winning clubs all members were enrolled in safety, and some aspect of safety was demonstrated or discussed at nearly every meeting.

Farm and home safety inspections, safety tours, reflectorizing bicycles and farm machinery, distribution of emergency call cards to 4-H families, displaying fire prevention posters, placing safety stickers on corn pickers and tractors, setting up safety window displays and safety booths were typical activities of the clubs.

To extend their program to the whole community, the clubs cooperated closely with community agencies, the Minnesota Highway Patrol safety division and local fire and police departments. One group appeared in a body at a town board meeting asking for a barricade to be erected at a dangerous dead-end road. The same group keeps the bottom steps in the community center painted white to prevent falls.

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 24, 1963

Immediate release

YAC MEETINGS SCHEDULED FOR NOVEMBER

Three district conferences of Young Adult Citizens (YAC) groups will be held in November, William Milbrath, University of Minnesota extension specialist for the young adult program, has announced.

Meetings will be held for the southeast district Nov. 9 in Faribault, at the Faribault Hotel; for the central district Nov. 16, Watkins, in the Village Hall; for southwest, Nov. 23 in Redwood Falls at the Country Club.

Taking part in a panel discussion at the Faribault meeting on "Community Challenges," theme of the conference, will be Deane Turner, extension education specialist, University of Minnesota; Russell Anderson, St. James, Judy Solberg, Utica and Donna Edwards, Spring Grove, southeast district committee chairmen. Moderator will be Earl Bergerud, assistant state 4-H club leader at the University of Minnesota. Phases of the topic to be covered in the panel are young adults and the community, knowing your community, serving your community and letting your community know you.

Jerry Papenfuss, Winona, named Young Man of the Year by Winona Jaycees, will be banquet speaker at the Faribault conference.

Other activities on the program include the election of district officers, a session on conducting effective meetings and a square dance at the 4-H Building at the Fair Grounds.

Registration is scheduled for 10 a.m.

Purpose of the Young Adult Citizens organizations is to develop, with the assistance of the University's Agricultural Extension Service, a program of study and training for young adults to make them more informed and more effective citizens.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 25, 1963

*For release at 2 p.m. *
*Monday, Oct. 28 *

COLLEGE PLANNING AMONG HIGH SCHOOLS URGED BY UM EDUCATOR

Rural youths must shoulder a good deal of responsibility for their own college and career planning, a University of Minnesota educator said today.

And he added that merely having a high school diploma is far from enough; how well the youth capitalizes on high school opportunities may be crucial for the future.

Keith McFarland, director of resident instruction for the College of Agriculture, Forestry and Home Economics, addressed the 18th annual meeting of the Minnesota Association of Cooperatives at the Hotel Lowry in St. Paul.

McFarland had three main points on career planning among rural youths:

* Plan to anticipate needs. "For instance, a majority of college programs call for high school training in mathematics, through higher algebra, as a bare minimum. If you don't have this training when you enter college, you may have to take it on your time and without credit."

* Avoid dead end streets. "The person with a plan does not drift aimlessly," McFarland said. "A goal is part of a plan; keep in mind what the implications of high school training are in terms of admission to college, part-time work, recommendations for jobs. Ability to persist is important--more so than often realized."

* Plan to save time and add efficiency and flexibility. McFarland advised young men and women to plan their training so as to give them entree into many different career activities. "Then," he said, "they will be able to make the best choice from among those available when the choice must be made."

"There is no single best answer for anyone," McFarland said, "but good preparation increases the number of possibilities available."

(more)

add 1 -- McFarland

McFarland questioned the idea of a "C" being a "gentleman's grade." "Grades, he said, "are the best available evidence of ability and productiveness. They represent the sum total of aptitude, effort, self-discipline, and cooperativeness of the individual. As such, grades have special meaning to employers, college admissions counselors, scholarship committees and faculty advisers."

"Good effort in high school develops the attitude of expecting success," he added. "Success with a tough high school program will probably mean greater readiness for the 'tough' courses in college, or will suggest an unwillingness to settle for less than a good job being done 'on the job.'"

Yet, said McFarland, factors other than intellect are important for school and job success. An individual must have a goal, imagination, realistic optimism and courage. He needs good health and energy, willingness to work, and ability to empathize with employer or instructor--see what he wants or expects, and why.

Also important, said McFarland, are unselfishness, personality and personal aspirations.

McFarland also raised some questions about why more women don't go to college. One reason often given, he said, is that they "won't be the breadwinner." "Wrong," he answered. "About 40 percent of the women will be in the labor market 25 years of their lives."

Women sometimes feel employment is readily available after the high school diploma. Yet, McFarland stated, income is still related to training and education.

College is more important than ever for homemakers, said McFarland. Women must handle finances, become leaders in community service, maintain relationships with other family members and neighbors, and take the lead in determining the cultural level of the family.

Also, McFarland noted, is the importance of being able to keep up with a college-trained husband, intellectually and socially. And, college-trained women are more likely to marry men with college degrees.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
October 28, 1963

To all counties

Immediate release

IN BRIEF.....

Cattle on feed in 28 states, as of October 28, were ten percent higher than one year ago. This increase is all in cattle weighing over 700 pounds while in the 900 pound or over category the increase was 25 percent. This means that beef marketing will continue at recent heavy levels for the remainder of the year. University of Minnesota Extension Economist, Paul Hasbargen, says there will be no point in holding fat cattle in hopes of a price rise. Such action on the part of many producers would result in more beef going to market thus lowering prices. Hasbargen says you should sell cattle when they reach their appropriate finish grade.

* * * *

Interplant transportation of milk can be a money-saver says a recent study conducted by the University of Minnesota. Efficient practices and modern techniques and equipment, may help reduce the present costs, say Agricultural Economists Russell G. Thompson and Fred E. Koller. The study was designed to estimate the relationships between milk transportation costs and factors influencing these costs. The results showed that relatively large trucks cost much less to operate on a 90 percent capacity basis than do small ones. Labor costs were also down when relatively large trucks were compared to small ones. The study concluded that cost difference between the large and small trucks was a vital one and one of the factors relating to interplant transportation costs.

* * * *

The director of resident instruction for the University of Minnesota's College of Agriculture, Keith McFarland, says rural youths must shoulder a good deal of the responsibility for their own college and career planning. McFarland said that merely having a high school diploma is far from enough. He said that how well a youth capitalizes on high school opportunities may be crucial for the future. Three points were outlined for career planning: plan to anticipate needs in the way of adequate preparation in high school course work; avoid dead end streets by having a goal or plan in mind; plan to save time and add efficiency and flexibility.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
October 28, 1963

To all counties
Immediate release

FALLOUT SHELTER
PROTECTS LIVES
IN EMERGENCY

Fallout shelter protection is especially crucial during the first two days following a nuclear blast says Clifton Halsey, extension rural civil defense director at the University of Minnesota.

Fallout is the radioactive debris thrown up by a nuclear blast. It travels mostly in high-altitude winds. About one-half hour after the explosion this dust begins to fall and most of it is down in about half a day. Fallout loses 90 percent of its deadly radioactivity within 7 hours after the explosion and 99 percent within 2 days. Families should plan on a 2-week stay in their shelter for maximum safety.

The fraction of outside radiation which gets into small wooden homes above ground is one-half. Homes above ground with heavy masonry walls or partially exposed basements of one- and two-story homes are infiltrated by one-half to one-tenth outside radiation.

Other radiation infiltration estimates include:

1. Basements without exposed walls in one- and two-story homes....
1/10 to 1/30
2. Basement fallout shelters recommended by civil defense authorities....
1/50 to 1/250
3. Vegetable storage cellars.... 1/30 to 1/250
4. Underground shelters recommended by civil defense authorities....
1/1000 or better

For bulletins or more information, see your county agricultural agent or civil defense director.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
October 28, 1963

To all counties

Immediate release

SOME SHIFT IN SPECIES,
LITTLE PRICE CHANGE
IN TREE MARKET

Minnesota's Christmas tree growers and buyers can look for little change in prices or total supply this year. But there will be some continued shifts in kinds of trees reaching the markets.

University of Minnesota foresters expect about 6 million pieces--trees and wreaths--to be cut in the state for the 1963 Christmas season. This total volume differs little from recent years. Total value to producers will run between \$6 million and \$7 million.

About 1.5 million trees will be sold in Minnesota. Cutting is already underway in many counties.

While volume is about the same, the trend will continue toward heavier sales of Norway and Scotch pine, and further reduction in balsam fir and perhaps in spruce.

Norway pine--the rather bushy-appearing tree with long needles--now accounts for between a fourth and a third of all Christmas tree sales in the Twin Cities, and nearly as much in the state as a whole. A dozen years ago, the foresters say, only about one tree in 50 sold in the Twin Cities was a Norway pine.

Similarly, Scotch pine, almost unknown in retail lots a decade ago, now makes up about two Christmas tree sales in 10.

Nevertheless, balsam fir still accounts for more Christmas tree sales than any other single species and will probably maintain its popularity with a large segment of the population for some time. About four tree sales in 10 in the Twin Cities in the last two years have been balsam firs.

The shift in interest to long-needled pines is reflected in prices. Surveys of Twin Cities retail lots in recent years show average tree prices by lot ranging from about \$2 to \$6.50 for Scotch pines and \$2 to \$5.50 for Norway pines. In contrast, the range of lot median prices is about \$1 to \$3.50 for spruce and \$2 to \$4 for balsam fir.

add 1 - tree outlook

The increasing popularity of Scotch and Norway pine reflects a geographic pattern, the foresters say. These long-needed species first became popular in Eastern states and have become more widely grown and sold in Minnesota as growers have increased the emphasis on tree culture--shaping and shearing trees as they grow to improve their quality.

The foresters estimate that more than 15 million trees are now being sheared or cultured in plantations around Minnesota. While the bulk of these are long-needed pines, the foresters expect more culturing to be done with balsam fir than in the past.

The foresters expect continued sales of specialty Christmas tree products, such as flocked and colored trees.

Minnesota ranks among the top two or three states in the production of Christmas trees. Most other states do not have growing conditions suited for the production of the variety of trees as does in Minnesota. For example, the spruce and balsam fir from the swamps and uplands of northern Minnesota and the Norway and Scotch pine in plantations on the glacial sands in the southern, east central, and southern regions of our state provides a wide selection to grower and buyer alike.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
October 28, 1963

To Southeast, Central
and SW Districts only

Immediate release

ALFALFA CUTTING DATE
HAS LITTLE EFFECT
ON YIELD AFTER FROST

Should alfalfa that has been partially frozen in late spring be left alone or cut immediately? Apparently, you can leave it until the normal cutting date.

A sudden cold snap in Pipestone County last spring set the stage for agronomists, Alois R. Schmid and Gordon C. Marten of the University of Minnesota, to investigate this question. On May 22, freezing temperatures of 25 degrees Fahrenheit froze the top five inches of entire plants, plus 30-65 percent of the plant leaves.

Marten and Schmid were assisted in their experiment by Pipestone County extension agents, Kenneth Rose and Darrell Busch.

They used two harvesting schedules. Test plot "A" was cut on May 24, the second crop was cut at the beginning of blossoming on July 9, and the third cutting was September 4. The other plot, "B," was cut at the normally recommended times, that is at first bloom. The three cutting dates were June 10, July 19, and September 4.

Yields per cutting and precipitation contributing to growth of each crop were accurately recorded throughout the growing season. Results indicate that yields of individual cuttings vary directly with the amount of moisture received. However, the total for all three cuttings wasn't significantly different. Plot "A" produced 1.42 tons per acre while plot "B" produced 1.39 tons per acre.

Marten and Schmid conclude that freezing of 30-65 percent of alfalfa plant leaves and the top five inches of the entire plant during the prebud to early bud stage does not prevent further growth of the entire plant. Consequently, you don't have to cut the crop immediately but can harvest at the normal time with little effect upon the yield.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
October 28, 1963

To all counties
4-H NEWS
Immediate release

4-H PEACE CORPS:
SACRIFICE AND
SATISFACTION

4-H has joined the "international set." No longer confined to rural groups as in its youth. 4-H has expanded beyond the United States with its own 4-H Peace Corps and 4-H volunteers.

"This is not a joy ride! You must be able to think on your own two feet" was the warning 56 U. S. volunteers received as they departed for Brazil in 1961 on the first of three 4-H Peace Corps projects in South America.

Since then, 80 former 4-H Club members and leaders have given aid and inspiration to young people in Brazil, Venezuela and Uruguay.

Among these are several Minnesotans: Richard Angus, Farmington, now head of the Uruguay project; and Kenneth Anderson, Winnebago, volunteer to Venezuela. Now being trained as volunteers to Uruguay are Keith Aho, Cook; Donald Holec, New Prague; and Marilyn Myerchin, Crookston.

Because most under-developed nations are basically agricultural, many federal Peace Corps projects demand persons with training in agriculture and home economics. In 1960 4-H answered the need and a special 4-H Peace Corps was contracted with the federal government.

Purpose of the 4-H Corps is to expand and strengthen rural youth organizations of South America similar to 4-H in the United States. Volunteers, or U. S. participants, are former 4-H Club members or leaders ranging in age from 18 to 53 years. Education varies from high school diploma to master's degrees.

Each volunteer is assigned a "native counterpart" whom he trains to continue club work when the project is completed. The counterpart in turn helps the volunteer to understand the country's people and problems.

add 1 - 4-H peace corps

The Peace Corps sets demanding standards and poses major adjustment problems: isolation, strange food and housing, sub-standard sanitation.

Anderson reports that water pollution and communicable disease are crucial problems in Venezuela. Many women make long trips daily by burro for pure mountain water. Volunteers carry chicken vaccine at all times for on-the-spot inoculation.

Work is hindered by the lack of skilled native leaders, specialized technical workers and subject matter information. Literacy, too, is low. Volunteers must speak fluent Spanish or Portuguese and most teach English to local groups. Still they can't rely on booklets and talks for teaching. Showing members a procedure and having them repeat it is the only assurance of success.

Even transportation, by jeep and often for great distances, is difficult. One volunteer waded miles to a meeting when rain flooded the crude dirt roads.

Little money is available for club projects. They must be adapted to materials at hand and consequently vary greatly in all "municipios" or counties. In Venezuela, club members make twine purses which they sell to tourists to finance clothing and home improvement projects.

Most club projects are relatively simple by U. S. standards but signify much progress in the local community. Major projects include gardening, poultry, rabbits and bees for boys. Girls add food and furniture-making. Members may make bamboo chicken coops, horse hair ropes or palm leaf work huts. Livestock projects such as swine and cattle are carried by some members but these are costly and not typical.

The hybrid corn project in Brazil is a good example of 4-H Peace Corps achievement. Although corn is one of Brazil's largest crops, production per acre is extremely low. With the Corps' modern methods, however, club members have quadrupled their yield.

Singing, games and movies attract youths to meetings. Competitive spirit is high. Members of one club vied to sell the most water purifying filters.

Highlighting the club year is an achievement day with exhibits, demonstrations and recognition of outstanding members. An attendance of over 3,000 persons at one achievement day indicated public interest and the success of the project.

"The satisfactions of this day," a Brazilian volunteer reports, "have made every sacrifice worthwhile."

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
October 28, 1963

To all counties
ATT: HOME AGENTS
Immediate release

QUICK COOKING
IS RULE FOR
VEGETABLES

The green and yellow vegetables that look so attractive in the grocers' bins will retain their color, good flavor and food value when they're served at the table -- if they're cooked properly.

Here's the secret: cook vegetables as quickly as possible and serve them as soon as they're done. Cook all vegetables only until they are tender. These suggestions come from extension nutritionists at the University of Minnesota.

The smaller the amount of water used in cooking, the more food value retained in the cooked vegetable. However, the amount of water used will vary somewhat with the type of vegetable.

So-called "waterless" cooking refers to cooking vegetables with only the water that remains on the vegetables after rinsing. This method does not permit quick cooking, however, and does not conserve nutritive values any better than cooking vegetables quickly in a small amount of water.

The recommended methods of boiling vegetables will vary depending upon color and intensity of flavor of the vegetables. To prevent undesirable flavor changes in strong-flavored vegetables like cabbage and onions, cook them uncovered and as quickly as possible. Cooking them in a large amount of water will lower food value but may make the product more acceptable to some.

Mild-flavored vegetables should be cooked in a tightly covered pan in a small amount of water -- unless the vegetables are green. Cook green vegetables quickly in an uncovered pan to allow volatile acids formed by the vegetables in cooking to pass off. These volatile acids, which destroy the chlorophyll or coloring in green vegetables, usually pass off early in the cooking process; so after the first few minutes of cooking you may want to use the cover to shorten cooking time.

add 1 - quick cooking

Cooking vegetables in a pressure saucepan is a quick and satisfactory method of vegetable cookery, but avoid prolonged cooking which results in loss of food values.

Cooking time can be shortened by cutting green beans lengthwise, by slitting stems of broccoli nearly to the head and by removing stems from spinach and chard.

Boiling root vegetables and tubers in their skins retains more vitamins and minerals than cooking these vegetables pared and cut. Tests show that potatoes boiled whole in their skins retain practically all of their vitamin C, thiamine and other nutrients. Baking potatoes whole in their skins also conserves nutritive values.

-jbn-

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 29, 1963

Immediate release

DHIA CENTRAL PROCESSING SHIFTS TO ST. PAUL CAMPUS

An electronic computer on the University of Minnesota's St. Paul Campus is giving a boost to the state's Dairy Herd Improvement Association program.

The first use of this computer for central processing of DHIA records was this month, when records on the herd of Ralph W. Wayne, extension dairyman, were calculated.

The computer is one installed by the University's Agricultural Experiment Station and, in the DHIA program, will be used to give dairymen rapid and complete reports on dairy production efficiency.

By June, 1964, all of the Minnesota cows on central processing will have their records processed on the St. Paul Campus. In the past, the processing has been handled by a computing center at Iowa State University. Some 87,000 cows are now on central processing, and 120,000 are estimated to be on the program by next summer.

Wayne says that central processed DHIA records provide the most complete records ever available to dairymen as guides for culling, feeding, breeding and management.

Wayne points out that the average cow on DHIA programs last year produced 11,163 pounds of milk per year and gave her owner a \$143 labor return in a year. In comparison, the annual average for all cows in the state is 8,130 pounds milk and \$59 in labor returns. Butterfat average was about 417 pounds per DHIA cow, or 130 above the state average in 1962.

Currently, a total of 171,000 cows in 5,800 herds are on some form of DHIA test. This is three times as many as 10 years ago.

(more)

add 1 -- DHIA

Past experience, Wayne says, shows that when a dairyman uses the information supplied in his DHIA records he can figure from \$5 to \$8 in increased net returns for each dollar he invests in the program. "This," says Wayne, "means getting your investment back with up to 700% interest each year. Nowhere else can a dairyman realize so much from his investment."

DHIA records are big helps in decision-making by herd owners. A summary of cows culled by members shows that 44 percent were sold because of low production shown by records.

The DHIA central processing system works this way. A local DHIA supervisor weighs and samples the farmer's milk, checks feed and feed quality. The supervisor then tests the milk, and makes out a report with test and feed data, other costs and management figures.

The farmer's report goes by mail to the dairy husbandry extension office on the St. Paul Campus where it gets a thorough audit. The data are transferred to cards for analysis in the St. Paul Campus computer center.

The computer makes the computations and prints out a complete report which is mailed back to the herd owner. From the time the data is put on cards, there are no hand calculations or entries until the farmer receives his report.

For the complete DHIA service, a farmer pays from \$4 to \$6.50 per cow annually. Minnesota farmers invest about \$1 million per year in the DHIA program, which began in 1910 in Freeborn County.

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63-308-pjt

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 29, 1963

Immediate release

\$150 WATKINS SCHOLARSHIPS AWARDED TO ACTIVE 4-H'ERS

Sylvia Carpenter, 18, Dover, and Larry Koenig, 18, Swanville, will receive \$150 Watkins scholarships for their outstanding achievements and leadership in 4-H Club work. Leonard Harkness, state 4-H Club leader at the University of Minnesota, has announced.

The scholarships are awarded by the J. R. Watkins Company, Winona.

During eight years of club work in Morrison County, Larry participated in the shop, swine, sheep and junior livestock projects. He was awarded a watch for outstanding service as a junior leader and a trophy as champion shop demonstrator.

Larry is a past president of his local 4-H Club. He ranked second scholastically in his Swanville High School graduating class. He is now taking electrical engineering at Valparaiso University, Valparaiso, Ind.

A career in home economics lies ahead for Sylvia, a freshman at Rochester Junior College. 4-H activities--food preparation, preservation and clothing--show her interest in homemaking.

Sylvia's participation in 4-H in Olmsted County has been rewarded with trips to the State Health Camp and the National Club Congress at Chicago. A 1962 4-H Key Award winner, Sylvia has been president and secretary of her local club.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 29, 1963

Immediate release

4-H'ERS BAKE BREAD AND WIN

Bread baking is not a lost art if the accomplishments of Minnesota 4-H girls are an indication.

Three young bakers--all high school seniors--will receive \$100 scholarships for their skills and achievements in making bread. They are: Mary Bisson, 16, Jasper; LuAnn Herrig, 18, Slayton; and Susan Swanson, 4745 Shady Oak Road, Hopkins.

During seven years in the foods project, Mary baked nearly 500 batches of bread and won two State Fair blue ribbons on demonstrations. She was a delegate from Pipestone County to the 4-H Health Camp, Junior Leadership Conference, Morris Camp and the South Dakota Exchange. Mary is a senior at Jasper Public School.

LuAnn has been president of her local club in Murray County for four years--the same number of times she has demonstrated her baking skills at the State Fair. She had baked 238 loaves of bread and 90 dozen rolls when she was hired to bake for an old folks' home. Italian foods are LuAnn's specialty.

Susan's expert advice on "Breads from Abroad" brought her a purple ribbon at the 1962 State Fair. President of her local club in Hennepin County last year, she is now a senior at Hopkins High School.

The scholarships are gifts of F. H. Peavey and Company. ### 63-307-blk

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 31, 1963

Immediate release

INTERPLANT MILK TRANSPORTATION COSTS MAY BE REDUCED

Milk hauling costs in Minnesota could be reduced through use of more efficient practices and equipment in milk transportation, say agricultural economists Russell G. Thompson and E. Fred Koller at the University of Minnesota.

Every day, millions of pounds of milk are transported to market over Minnesota highways. In 1960 about 4.5 billion pounds of milk were transported by tank trucks from local feeder plants to central processing plants.

Thompson and Koller recently made a study to estimate the relationships between milk transportation costs and factors influencing these costs and to develop accurate estimates of transportation expenses.

To accomplish this, interplant transportation expenses were broken into truck costs and labor costs. Truck costs were considered by miles driven, hauling capacity, weight efficiency, and fuel type. Labor costs were related to miles driven, volume of milk hauled, number of loading stops and types of loading and unloading equipment.

(more)

add 1 -- milk transportation costs

The results on a 50 mile route showed that relatively large trucks cost much less to operate on a 90 percent capacity basis than small ones. For example, the smallest truck units, 13,000 to 13,500 pounds, had truck costs of 3.7 cents per 100 pounds and the largest trucks, 41,300 to 43,000 pound capacity, had costs of 2.6 cents per 100 pounds.

Labor costs were derived from estimates of the time required for each hauling task using a wage rate of \$1.80 per hour. Labor costs per 100 pounds were considerably less for larger trucks.

This is significant in the comparison of small and large truck loading. Drivers operating the smallest trucks used 133 minutes per load of milk while drivers operating the largest units used 171 minutes. Pumping time accounted for the 38 minute difference.

It took the same time to drive the small trucks between stops as the large ones and to perform all tasks associated with getting the truck units ready for loading and unloading.

The study concluded that large trucks can haul milk between receiving stations or local creameries and central processing plants for significantly less than small ones.

Total transportation costs per 100 pounds were 7.1 cents for truck units hauling between 13,000 and 13,500 pounds and 3.9 cents for trucks hauling 41,300 and 43,000 pounds.

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63-309-wlb

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 31, 1963

Immediate release

CARVER COUNTY 4-H CLUBS ARE STATE WINNERS IN SAFETY

Farms and homes in Carver County have been made safer as a result of the activities of 4-H members.

Those activities--including correction of more than 500 farm or home hazards and participation in a bicycle safety program--have won for Carver County 4-H clubs top placing in the state in this year's national 4-H safety contest.

The county extension office will receive a plaque from General Motors, Detroit, Mich., as an award, according to Leonard Harkness, state 4-H club leader at the University of Minnesota.

Ten individual clubs in the state were cited for their safety activities. They will be awarded certificates for outstanding safety programs: Country Cousins, Hennepin County; Iona Lucky Aces, Murray County; Cascade Cruisers, Olmsted County; Lucky Aces, Washington County; Eitzen-Besquare, Houston County; Framnas, Stevens County; Delafield Diggers, Jackson County; Hi-Lighters, Le Sueur County; Silverton, Pennington County; and Wykeham Willing Workers, Todd County.

Every 4-H club in Carver County conducted a safety hazard hunt in 1963. In addition, nearly 200 4-H members participated in a bicycle inspection and reflectorizing program. More than 800 bicycles were inspected by Veterans of Foreign Wars members and local law enforcement officers, assisted by 4-H'ers in a one-day campaign conducted in June.

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63-310-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 31, 1963

Immediate release

CANNING AWARDS TO FOUR MINNESOTA 4-H'ERS

Four Minnesota girls canned food, saved money, then won awards for their outstanding achievements in the 4-H food preservation project.

Marcia Blom, 18, Harris, and Margaret Starkson, 18, Byron, are the 1963 recipients of \$300 scholarships awarded by the Ball Brothers Co., Inc., Muncie, Ind.

The girls were selected on the basis of their food preservation skills and the use of their home-canned products in meals they prepared.

Rosanne Seidl, 18, Hanska, and Judy Halvorson, 18, Red Wing, will receive \$50 savings bonds from the Kerr Glass Manufacturing Corp., Sand Springs, Okla.

During six years in the food preservation project, Marcia canned 1,363 quarts of fruit and vegetables. Food canned and frozen totaled 10,077 pounds. Marcia is a University of Minnesota freshman.

Margaret's preservation of fruits and vegetables represents a saving of over \$2,100 to the Starkson family. Margaret has also prepared nearly 1,000 meals during the past nine years and has had six exhibits at the State Fair. She is a sophomore at Rochester Junior College.

For four consecutive years Rosanne has won the Brown County medal for food preservation. She has preserved 1,600 quarts of fruit and vegetables and 1,300 pounds of meat and fish. Rosanne, a freshman at St. Mary's School of Nursing, Rochester, was president of her local club last year.

State Fair food preservation exhibits and demonstrations brought two purple ribbons to Judy. In 1961 Judy received the 4-H Key Award for leadership in her club and Goodhue County where she held a total of six major offices. She is enrolled at the Northwestern School of Nursing, Minneapolis.

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63-311-blk

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
October 31, 1963

Immediate release

HAMS, LOCALLY GROWN VEGETABLES AMONG GOOD BUYS

If you're looking for a good buy in meat, this may be the week for you to choose ham. And to accompany the ham, put some locally grown vegetables in your market basket, along with some fresh grapes and apples.

Hams--whole, shank and butt halves--are featured items at many meat counters, reports Mary Ryan, extension consumer marketing specialist at the University of Minnesota. Many beef and pork cuts are also good values. Check on specials in the meat department where you shop.


Good buys in vegetables include locally grown red potatoes, squash, tomatoes and cauliflower, all in good supply. The Minnesota cabbage crop is 11 percent greater than last year; the carrot crop is 7 percent larger--so watch for good values on these items.

Tokay and Emperor grapes, the fall varieties of the abundant grape crop in California, continue to be good buys.

Although October is the peak month for apples, large supplies will last through January. All Midwest apples are abundant. Delicious apples are slightly higher priced than other varieties.

More oranges and grapefruit are appearing in markets each week, in spite of this year's short citrus crop. Hence prices will be slightly higher than the low prices we have been accustomed to, Miss Ryan says. She points out, however, that consumers can still find good buys if they watch for specials. Some supermarkets will feature low prices on grapefruit and oranges to attract you to their store.

Good news to food shoppers is the report from the U. S. Department of Agriculture that Florida, California and Arizona citrus trees are recovering well from last year's freeze.

Low priced at many stores this week are pound packages of soda crackers; canned fruit cocktail, peaches, cream-style corn and tomato juice; and 2- and 3-pound cans of coffee. Although a freeze occurred in Brazil's major coffee-producing state, no shortage or higher prices are anticipated on coffee.  63-312-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
November 4, 1963

To all counties
Immediate release

JUNCTION ANGLE
MAY VARY FOR
DRAIN TILE

A research finding that could simplify some aspects of laying drain tile on farm land has been reported by engineers in the U. S. Department of Agriculture and the University of Minnesota.

The finding is that tile lines can be laid more rapidly and at less expense, with no loss in efficiency, by joining side lines to the main at whatever angle is most convenient.

Side lines (laterals) are customarily joined to the main line at a 45-degree angle. But research by Fred W. Blaisdell, hydraulic engineer of USDA's Agricultural Research Service, and Philip W. Manson, agricultural engineer of the Minnesota Agricultural Experiment Station, shows that designers can disregard the junction angle, since it has practically no effect on the operation of most agricultural drain tile systems.

The experiments were conducted at the St. Anthony Falls Hydraulic Laboratory of the University of Minnesota, Minneapolis.

The engineers say their findings may also be significant in designing other pipe systems -- for example, those used for air conditioning and oilfield collection lines, water supply, and some sewers.

Joining agricultural tile lines at a 45-degree angle has been costly to drainage contractors. Where tile systems cannot be designed with the laterals approaching the main at 45 degrees, the trenching machine must be halted at each junction. The crew stands idle while workmen widen the trench and lay tiles by hand, curving the lateral to a 45-degree junction.

-more-

add 1 - junction angle

Mr Blaisdell and Mr. Manson made 4,500 tests to determine the amount of energy lost due to friction at different junction angles under varying conditions. This energy that is converted to heat at a junction by friction is not available for moving water through a tile line.

With substantial energy loss, a line would flow at less than capacity, and a larger and more expensive tile might be needed to handle the flow. However, the small differences in energy loss among the various junction angles tested would be negligible in agricultural drainage systems.

Junction angles of 15, 30, 45, 60, 75, 90, 105, 120, 135, 150, and 165 degrees were tested at five ratios of main size to lateral size, two positions of the lateral entering the main, four water-flow velocities, and 11 variations in proportion of flow from main and lateral.

The engineers measured the pressure differences downstream and upstream from the main-lateral junction under each set of conditions, and then calculated the energy loss due to friction at the junction.

The research by Blaisdell and Manson will be explained in a popular bulletin, to be published soon at the University.

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Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
November 4, 1963

To all counties

Immediate release

13 TESTING SEASONS
SHOW PROGRESS FOR
SWINE PRODUCERS

Minnesota's swine industry has taken on a new look in the past decade, and you can sum it up in the words "performance testing."

Today, swine testing stations have real meaning to a vast number of Minnesota hog producers. And one reason is the changing wants of people who buy pork for the home dinner table.

The trend is toward a demand for high quality meat with less fat and more lean. And, according to I. T. Omtvedt, extension livestock specialist at the University of Minnesota, much pork still does not meet consumer preferences, in spite of progress in recent years.

Continued improvement, he says, depends on the effectiveness of swine improvement programs such as on-the-farm and station testing.

Since only a few pigs from a herd can be evaluated, how valuable are swine testing stations? Omtvedt says testing stations don't solve all problems, but they can serve as a good guide for sound breeding programs. Test records help breeders evaluate their herds. Records point out the strong and weak spots and reveal traits needing the most improvement and the most emphasis in sire selection.

Through testing, a breeder can check out new boars before they are heavily used. Many a hog man can tell the unhappy story of a boar, supposedly of top quality, that did more harm than good to their herd. The boar didn't nick well with their sows to improve the quality of their herds.

A producer can avoid such risks by testing out new boars before getting rid of the old one.

-more-

add 1 - progress for swine producers

Minnesota swine producers first evaluated hogs at a testing station in fall, 1957. The initial test was to feed three boars and a half-brother barrow per pen. Since market pigs are slaughtered and carcass information collected after the feeding trial, they provide more evaluation information than does boar testing. Because of this fact, the Minnesota program in 1959 was changed to what is essentially market pig testing.

Today, an entry consists of four market pigs sired by the same boar, with not more than two pigs from any one litter.

In the past 13 seasons, 944 market pens, involving some 3,100 pigs, have been evaluated at the Austin and New Ulm stations.

Records prove that swine breeders are using these records. Quality has improved. Omtvedt reports that after adjusting the records to a barrow equivalent, the 462 market pigs tested in the past season averaged .22 inches less backfat, .44 square inches more loin eye area, .4 inches more length and 3.3 percent more ham and loin yield based on liveweight than the 27 barrows tested in 1957.

After adjusting feed records to a barrow equivalent basis, Omtvedt found that pigs tested in 1963 required about 12 percent less feed per hundred pounds gain than those tested in 1957. Time needed to reach 200 pounds was about 149 days in the most recent season, compared to 146 days for the initial test.

Records from 1963 spring and summer tests also show some differences among breeds. One key measure of meatiness is the percent of ham and loin of liveweight. Breeds yielding at least $26\frac{1}{2}$ percent ham and loin included Hampshire, Poland China and Spots and Yorkshire. Those yielding between $25-26\frac{1}{2}$ percent were Berkshire, Chester White, Duroc, Landrace and Yorkshire.

Breeds with less than 25 percent ham and loin were Montana No. 1, Wessex, and Minnesota No. 3 and 4.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
November 4, 1963

To all counties
Immediate release

IN BRIEF.....

Henry soybeans are being talked about by some Minnesota farmers. The variety was developed in 1960 in Ohio and one of its chief attributes is resistance to Phytophthera root rot, according to Harley Otto, extension agronomist at the University of Minnesota. Although Ohio tests show Henry to yield more than Harosoy where that disease occurs, Harosoy out-yielded Henry in non-infested soil. And since the disease has not been reported in Minnesota, Otto says it is doubtful that Henry will perform as well as Harosoy here.

* * * *

DHIA Central Processing has begun on the University's St. Paul Campus, involving a new electronic computer installed by the University's Agricultural Experiment Station. Extension dairyman Ralph Wayne says that by June, 1964, all Minnesota cows on central processing will have their records done in St. Paul. That will involve an estimated 120,000 cows. Up to now, central processing has been done in Iowa. The average cow on DHIA programs last year produced 11,163 pounds of milk, giving her owner a \$143 labor return. That compares to 8,130 pounds and \$59 in labor returns for the overall state average.

* * * *

Protein malnutrition is the most serious and wide-spread nutritional deficiency in the world today, according to I. E. Liener, biochemist at the University of Minnesota. The problem is especially severe in Central and South America, Africa, India and the Far East, where people eat relatively little meat. However, extensive clinical tests have shown that adding lysine, a vital amino acid, to native diets containing cereals such as wheat, rice or corn, causes a marked improvement in the health and well-being of such people. Skimmed milk is one source of lysine-rich proteins.

* * * *

Fall soil testing: There's still time to get those samples before a hard freeze sets in. Fall testing means results back in time for spring crop planning. Sampling may be harder to do then, when ground is soft and you're pushed by other work. This applies to lawn and backyard, as well as to field crops.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
November 4, 1963

To all counties
ATT: HOME AGENTS
Immediate release

HERE ARE EASY
WAYS TO IMPROVE
HOME LIGHTING

As days grow shorter, it's more important than ever to provide good lighting for the family -- whether it's for study, reading, sewing or doing a variety of household tasks.

What is good lighting? It's enough light of the right kind in the right place, according to Mary L. Muller, extension home improvement specialist at the University of Minnesota. She suggests some quick ways to improve home lighting.

1. Quantity of light

- Clean fixture bowls, reflectors and light bulbs often for better light.
- Use larger bulbs, especially for desk work, sewing and reading. A 100-watt bulb will give more light than a pair of 50's. Use a minimum of 150 watts for desk or table lamp and usually 300 watts for a floor lamp for reading.
- Move darkened bulbs to a place where quantity of light is not critical.
- Add a light lining to dark shades.
- Add an under-cabinet fixture for mix and other kitchen work centers.
- If a drop fixture has candles with upright bulbs, increase the quantity of light by using larger wattage bulbs with small shades.
- Paint walls and ceilings in light colors for more economical lighting.

2. Quality of light

- Plan for good over-all room lighting. The contrast between the bright light from a single lamp and the dark room will cause eyestrain and fatigue. An additional top light or wall light will provide good over-all lighting.
- Shade all light sources properly to avoid glare. If you can see a bright spot through the shade, use a less translucent shade or add a lining.

add 1 - improve home lighting

- For softer light, add a diffuser bowl to a lamp and replace frosted bulbs with ceramic bulbs. In a pull-down fixture, replace the diffuser bowl with one less translucent if the light is uncomfortably bright.

3. Position

- Place a table lamp for reading in line with the shoulder so the lower edge of the shade is at eye level when you are seated.

- For reading under a floor lamp, place the lamp stem about 10 inches behind the shoulder, near the right or left hand corner of the chair.

- If the spread of light from a lamp is small, use a wider shade in keeping with the lamp design.

-jbn-

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
November 4, 1963

To all counties

4-H NEWS

Immediate release
(with mats of 4-H officers)

OUTLINE: Assisting with the fall enrollment drive is one of the first major activities of Minnesota State 4-H Federation officers for 1963-64. Left to right they are: Paul Johnson, Maple Plain, secretary; Jean Hartwig, Darwin, vice-president; Thomas Burke, Blooming Prairie, president; and Patricia Berglund, Scandia, treasurer.

STATE OFFICERS
INVITE YOUTH TO
JOIN 4-H

A special invitation to young people in Minnesota between the ages of 9 and 21 to join a local 4-H club is being issued by Thomas Burke of Maple Plain, president of Minnesota's organization of 53,000 4-H members.

Also encouraging boys and girls and older youth to enroll as soon as possible are the other officers of the State 4-H Federation. The advantage of joining this fall, they say, is to be included in the many interesting fall and winter activities, to get an early start in project work and to begin getting the leadership experiences that will prepare you for whatever you do in the future.

The 4-H program has given the present Federation officers practical experience all of them are finding useful in their present situations.

"Project records, demonstrations and the leadership opportunities encountered in 4-H are excellent ways to prepare for adult life," in the opinion of Paul Johnson, Maple Plain, secretary of the State 4-H Federation. "While we are learning, we have fun. I will always be glad to have been a 4-H'er," he adds.

Paul is president of the Armstrong 4-H Club, past president of the Hennepin County 4-H Federation and has been an active 4-H'er for nine years. He is now a freshman in the College of Agriculture, Forestry and Home Economics at the University of Minnesota.

President Tom Burke is farming with his father and twin brother and making use of the knowledge he gained in 11 years in 4-H hog and beef projects. His six years of junior leadership have helped him to assume the presidency of the largest youth organization in the state.

-more-

add 1 - officers invite youth

Three years of 4-H junior leadership have helped Jean Hartwig, Darwin, to assume various leadership roles -- the presidency of the Ellsworth Lakers 4-H Club, presidency of the Meeker County 4-H Federation and now presidency of the local Future Homemakers of America chapter in Darwin where she is a high school senior.

Patricia Berglund, Scandia, treasurer, has had a chance to develop her varied interests as well as her leadership potential in 4-H. In her 10 years in 4-H and four years as a junior leader, she has taken sheep, health, forestry, safety and has won high honors in the clothing project. She has been treasurer of the Panola Rockets 4-H Club and president of the Chisago County 4-H Leaders' Council. Pat is now registered at the University of Minnesota, majoring in physics.

The opportunity to hold office, to plan and conduct meetings and to demonstrate before a group develops leadership abilities and self-confidence, the officers say. But 4-H offers many other advantages -- skills learned in projects; recreation at meetings, outings and trips which give members a chance to have fun and meet young people their own age.

If you are interested in joining a 4-H club, the officers suggest that you get in touch with a member or a leader in the club nearest you or with the county extension agent. The county extension office, located in the _____ in
(building)

_____ can supply the names of leaders and clubs in different areas of the
(town)
county.

-jbn-

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
November 4, 1963

To all counties
(except N.E. District)

Immediate release

LIMITED FEEDING
OF MARKET HOGS
UNDER STUDY

Reports that limited feeding of market hogs will result in improved efficiency of gain as well as improved carcass leanness are not conclusive says R. J. Meade, animal husbandman at the University of Minnesota.

Limited feeding is known to be an effective means of controlling rate of gain and in many instances may also improve carcass cutout. Some studies have been found to result in a substantial saving of feed. Other studies contradict this.

If limited feeding is to be practiced it must result in a large enough saving of feed to pay for added labor, or the saving in feed must pay for the equipment necessary to feed pigs automatically without an increase in labor.

A survey of the limited feeding studies showed backfat thickness was reduced and loin eye area increased as a result of restricted feeding, but the extent of these improvements was influenced by the degree of limitation of feed intake.

Dressing percentage tended to be lower when pigs were restricted, but not consistently so. When pigs were fed bulky rations to reduce energy intake they did not yield as high a carcass percentage of slaughter weight.

The story of limited feeding remains unclear in other areas.

Various breeds, lines or breed crosses of swine appear to respond differently to restricted feeding systems.

Environment and season exert important effects upon the response of pigs to restricted feeding and the influence of different plans of feeding on carcass quality. These factors must be considered when recommending restricted feeding programs or schedules.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 5, 1963

Immediate release

MILKING INTERVAL HAS SOME EFFECTS ON MILK YIELD

Dairy cattle research men are gaining a better understanding of how the length of time between milkings affects the amount of milk a cow produces.

Dairymen have known for years that cows tend to give more milk if milked more frequently, such as three or four times daily, instead of twice. Yet, most farmers stick with a twice daily schedule, because the extra milk often does not repay the labor needed for more frequent milking.

Many fundamental aspects of milking interval, however, have been open to question. How does interval length affect secretion, or production of milk in the udder within that interval? How long does it take after an interval change for production to readjust and hit a peak?

A group of dairy scientists at the University of Minnesota have studied true intra-interval secretion. The milk secreted between milkings is not the same amount as a farmer gets from his cows. After the milker has removed all milk in the udder, the researchers inject the cows with oxytocin, a milk let-down hormone, to remove complementary milk in the udder.

Each cow retains some complementary milk after milking, though the amount varies among cows. It can be removed only by oxytocin injections, but complementary milk must be measured before total secretion can be known.

The research men compared different milking intervals. Cows milked four times daily (six-hour intervals) produced nearly 8 percent more milk than cows milked twice daily. The increase might have been higher if the cows on shorter intervals were fed more. In these studies, all cows were fed the same amount of feed.

The dairy husbandmen made two measures of milk secretion. The first was average secretion per hour, or the amount of milk produced in an interval divided by the number of hours between milking.

(more)

add 1 -- milking interval

The second measure was "instantaneous secretion," or the amount of milk secreted per hour in the time between milking and the next shorter interval length. If a cow was milked at 24-hour intervals, her instantaneous secretion rate would be the amount of milk produced per hour in the last six hours between 18 and 24.

Average hourly secretion declined as the milking interval became longer-- which you would expect from knowing that shorter intervals lead to more milk. However, instantaneous secretion declined even more sharply with longer intervals.

In one experiment, average secretion rates were 1.3, 1.25, 1.17 and 1.02 pounds per hour for the 6, 12, 18 and 24 hour milking intervals respectively. But the instantaneous rates dropped even more sharply--from 1.3 per hour at the shortest interval to .58 for the longest.

These secretion rates reflect how fast milk is being produced in the udder.

The rate of secretion drop-off, dairy husbandmen suggest, may explain why cows often do as well when intervals are staggered--such as an 8-hour interval followed by a 16-hour interval--as when they are on equal 12-hour intervals. The secretion rate with the short interval may be just high enough to balance out the lower rate that occurs with the longer period between milkings.

The researchers also have some speculations about the few cows that drop in production with staggered intervals. A possible reason for this decline is a small udder that simply can't take a large amount of milk, resulting in an unusually low secretion rate in the latter part of the interval.

Such cows with small udders might show the greatest increase in production with more frequent milkings, such as three or four times daily.

If shorter intervals increase production, how many days does it take for the increase to reach a maximum? In one experiment, 18 cows produced a total of just over 600 pounds milk during a day with two 12-hour milking intervals.

The next day the same cows were milked at 6-hour intervals and production jumped to 618 pounds. And on the second day of the shorter intervals, production hit nearly 641 pounds--which was about as high as it was to go.

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63-315-pjt

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 5, 1963

Immediate release

FILLERS FOR YOUR WOMEN'S PAGES

If thiamine is lacking in your diet, you may feel tired, irritable and depressed. Pork now in plentiful supply, is one of the rich sources of thiamine, according to extension nutritionists at the University of Minnesota. On the basis of an average serving, pork supplies more of this important B vitamin than any other food.

Small households spend more per person than large families on meat, poultry, fish, eggs, fruits and vegetables.

A two-person household spends 24 percent of its food dollars on meals away from home, according to a food consumption survey the the U. S. Department of Agriculture.

The cardinal rule in carving a roast is to cut across the grain.

Low temperature in cooking meat yields 10 to 30 percent more meat than high temperature meat cookery.

Minnesota produces about a tenth of the nation's honey supply. This year's national honey crop is the largest on record.

If you are an average American family, you spend only about 20 percent of your week's take-home pay on food--the best bargain Americans have ever had. In 1947-49, Americans spent 26 percent of their paycheck for food. Englishmen spend about 31 percent, Italians 43 percent.

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63-316-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 5, 1963

Immediate release

CANKERWORMS EMERGE: PLAN TO CONTROL NEXT SPRING

If you're alarmed by an invading army of gray, wingless insects crawling up tree trunks and walls of your house, you may have good reason.

The extension entomologist at the University of Minnesota, John Lofgren, says a massive emergence of the fall cankerworm adults has occurred this year and may cause trouble next spring when their eggs hatch.

Lofgren says little can be done now. Your best approach is to plan a spraying campaign for next spring.

The eggs laid by the female adult cankerworm moths are difficult to remove from trees and houses now, so control must start when they hatch in the spring. The trees will need thorough spraying when the worms begin to feed. Lofgren says that municipalities should be alert to the menace then.

The outbreak so far has been reported in the northern suburbs of the Twin Cities and as far northwest as Fargo and Moorhead.

Two consequences of the cankerworm menace may have telling effects on the state's tree population. First, the caterpillars may defoliate trees so extensively that they suffer permanent damage. Secondly, if any of the trees injured or killed happen to be Elms, they will provide new breeding grounds for the Elm bark beetle which transmits Dutch Elm Disease.

Lofgren adds that the situation could be eased by an early spring warm spell, enough to cause hatching, followed by killing cold weather. However, if we have a cool spring with a sudden warmup and rapid budding and leafing-out of trees, there may be many leafless trees.

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63-314-jfk

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 5, 1963

Immediate release

4-H AGENT HONORED

WASHINGTON, D.C.--Delores Andol, Roseau County assistant 4-H Club agent, will receive a national citation at the annual conference of the National Association of County 4-H Club Agents being held here this week (Nov. 3-7).

She will receive the National Distinguished Service Award from the association at the annual banquet Wednesday evening (Nov. 6).

Miss Andol will be recognized for her long-time work in developing one of the highly successful, well rounded county 4-H programs in Minnesota, as well as in recruiting and training effective 4-H leaders, according to Leonard Harkness, state 4-H Club leader at the University of Minnesota. She has been assistant 4-H Club agent in Roseau County since 1946.

In 1962 Miss Andol was awarded a scholarship for the summer session at the University of Wisconsin. She attended Colorado State College during the summer of 1959.

She is a member of Epsilon Sigma Phi, national honorary Agricultural Extension Service fraternity.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 7, 1963

Immediate release

INSTITUTE OF AGRICULTURE CALENDAR

NOVEMBER

- 12-13 Crop Quality Extension Conference, Fargo, N. D.
- 22-28 National Farm and City Week
- 25 Varietal Recommendations Conference, University of Minnesota
Agricultural Experiment Station, St. Paul Campus
- 27 Parents' Days, North Central School and Experiment Station,
Grand Rapids, and Southern School and Experiment Station,
Waseca

DECEMBER

- 1-5 National 4-H Club Congress, Chicago
- 2-3 Minnesota Nurserymen's Annual Conference, St. Paul Campus
- 5 Beef Feeders' Day, West Central Experiment Station, Morris
- 9 Soils and Fertilizer Short Course, St. Paul Campus
- 10-13 Annual Conference, University of Minnesota Agricultural Extension
Service, St. Paul Campus
- 16-21 DHIA Supervisors' Training School, St. Paul Campus
- 26 Vocational Agriculture Instructors' Special Short Course,
St. Paul Campus

JANUARY

- 9 Swine Feeders' Day, West Central Experiment Station, Morris
- 14 Swine Feeders' Day, Southern Experiment Station, Waseca
- 15 Swine Feeders' Day, Southwest Experiment Station, Lamberton
- 16 Swine Feeders' Day, St. Paul Campus

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63-319-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 7, 1963

Immediate release

FIVE 4-H GIRLS WIN CLOTHING HONORS

Five Minnesota 4-H girls have sewed their way to success.

They will receive awards for outstanding achievement records in the clothing project, Evelyn Harne, associate state 4-H Club leader at the University of Minnesota, has announced.

Each girl will be awarded a sewing machine or a \$100 scholarship by Dayton's, Minneapolis.

Winners are Patricia Berglund, 18, Scandia; Bonita Halfmann, 18, Stephen; Nancy Postier, 17, Clearbrook; Robin Shaide, 17, Perley; and Jean Tobolt, 16, Moorhead.

A freshman at the University of Minnesota, Patricia has been in Chisago County club work for 10 years. "4-H has taken me from weeding gardens to the thrill of participating in the State Fair Dress Revue," says Patricia. She estimates that she has saved about \$700 through seven years' work in the clothing project. She was chosen for the Court of Honor at the last two state fairs and was named a purple ribbon clothing demonstrator at the 1963 State Fair.

(more)

add 1 -- clothing honors

Bonita, another University freshman, has won trips to the State Fair for the past four years. She was also chosen for the 1963 Court of Honor. Because of the outstanding assistance she has given younger members, Bonita was selected Marshall County's top junior leader last year. For two years she was a delegate to the State Junior Leadership Conference. Bonita was valedictorian of her graduating class.

A two-time participant in the State Dress Revue, Nancy is a diversified young homemaker. She has sewed 92 garments, prepared 99 meals and baked bread 125 times during her 10 years in 4-H. Last year Nancy was named champion demonstrator in Clearwater County. She is a senior at Clearbrook High School.

Ten different projects in nine years of club work have kept Robin busy. She was also a 1963 State Dress Revue participant and has made or remodeled exactly 100 garments. Robin was a local Share-the-Fun winner and a delegate to the State Junior Leadership Conference. For two years the Norman County clothing exhibit championship went to Robin. She was the top student of her 1963 Borup High School graduating class.

Jean has won the Clay County grand championship for clothing construction three of her seven years in 4-H and participated in the State Dress Revue for the last two. She was a member of the Court of Honor and received a blue ribbon for her demonstration at the 1963 State Fair. An active junior leader, Jean had held many club offices and has given sewing instruction to younger members. Now a senior at Moorhead High School, Jean will enter the University of Minnesota in home economics.

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63-317-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 7, 1963

Immediate release

SOME POTATO INSECTICIDES CAUSE INCREASE IN APHID NUMBERS

Use of insecticides on crops requires many forms of caution, and one danger is that the chemical may result in an increased number of harmful insects.

Experiments over a 6-year period on the St. Paul Campus of the University of Minnesota show that certain insecticides on potatoes sometimes increase the population of the green peach aphid.

According to entomologist A. G. Peterson who did the research, potatoes treated with Sevin at one and two pounds actual toxicant per acre averaged 28 times as many aphids as did untreated plots.

Less spectacular, but still significant, increases occurred following the use of DDT and a few other chemicals. Such effects occurred in four of the six years the research was conducted.

Peterson says these findings are especially important to growers, since aphids can transmit virus diseases of potatoes.

DDT emulsion sprays controlled green peach aphids on potatoes fairly satisfactorily for several years up to 1956. But from then until 1960, such was no longer the case. DDT was eventually replaced for aphid control on potatoes by parathion and this in turn by such materials as endrin and endosulfan, which do not increase aphid numbers.

Unintended effects of insecticides, such as aphid build-up, have been reported in the past, Peterson says. One possible explanation is that insecticides may reduce the numbers of natural enemies of the pest. A second is that the insecticide may have a favorable influence on the pest, and a third possible reason is removal of competing insects by the chemical.

(more)

add 1 -- insecticides

In Peterson's experiments, results favored the first of these explanations-- that insecticides may kill the aphid's natural enemies, such as the lady beetles.

In 1958 experiments, for example, Peterson found an initial population of green peach aphids averaging about 85 per 25 leaves in late June. This is a rather low count. From then on, aphid numbers went down in untreated plots, apparently through predatory activity of lady beetles.

However, aphids increased rapidly in plots where beetles had been killed by such insecticides as Sevin. Peterson found no lady beetles that year in plots treated with two pounds Sevin per acre. Where the rate was only a half pound or a pound, there were a few live adults and pupae, but no larvae.

In 1960, the situation was quite different. This time, there was a high initial aphid population, with few predator insects to keep aphids in check. The lady beetle population built up rapidly in the latter half of July on untreated plots and seemed to help contain the aphid population there. However, lady beetles failed to increase in plots sprayed in mid-July with chemicals phosphamidon, dimethoate, Guthion, and Bayer 29493.

On one of the treated plots where phorate was used in 1960, aphid outbreaks ended suddenly in late July, whereas, in others, aphid numbers did not drop to the level of untreated plots until a week or more later.

Although aphid increases followed use of DDT in these experiments, Peterson says this doesn't mean increases are more likely to follow DDT than certain other insecticides. He used DDT as a standard of comparison in every experiment, but used some materials only once or twice. Farmers should keep a close watch for build-up of aphids following use of DDT, Sevin, and Guthion, Peterson concludes.

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63-318-pjt

12 C
107P Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
November 8, 1963

To all counties
(First in a series on
Minnesota's forestry
resources)

Immediate release

FOREST RESOURCES:
HOW IMPORTANT
TO FUTURE GROWTH

Minnesota's towering evergreens and vast acres of hardwoods shape into a mammoth question mark for the future of many a community.

In hundreds of towns and scores of counties, it makes little sense to talk rural development without taking a long look at the woodlands. But how promising is forestry for the future? How much growth can the industry expect?

While precise answers call for a better crystal ball than anyone has around, extension foresters Bill Miles and Marvin Smith at the University of Minnesota point out some of the facts which community, area and state groups might keep in mind in analyzing this resource--traditionally a major one in Minnesota.

In both Minnesota and the country as a whole, pulpwood and lumber are the big industrial users of trees--with the former accounting for almost 10 times as much income as the latter in this state.

Lumber, in fact, is not a growing outlet for trees. The nation markets around 33 billion board feet of lumber per year, which is about 2 billion under the figure for 1899. In the Lake States region, lumber production has been declining steadily.

Pulpwood, however, is an entirely different story. Use per capita has swelled from 220 pounds in 1910 to over 1,100 pounds for each man, woman and child in 1960. And with population growth, that amounts to a tremendous increase.

In 1958, timber accounted for \$3.9 billion of the gross national product (GNP), of which 60 percent originated in the pulp and paper industry, 28 percent in lumber, and the rest in other products.

Bright as the national pulpwood picture may be, there are some clouds here, too. The northern states have slipped in relative position from producing better than eight-tenths of the nation's pulp production 50 years ago to about a fifth now. The big increase is in the South, which went from 12 percent of total production to 59 percent in the same period.

-more-

add 1 - forest resources

Why so much growth in pulpwood industry in southern States? They have enjoyed a rapid growth of good pulpwood species. By something of an agricultural accident, much cropland that lost fertility has gone over to forest land south of the Mason-Dixon line. Growing industrial centers--like Birmingham, Atlanta, Nashville and others--drew in marginal farmers whose former lands often became available to pulp companies.

The pulp industry had a good opportunity there. Labor is relatively economical and the climate is good for logging--much better than in Minnesota winters.

Western states also saw a sharp rise in the pulp business. There, pulp fits in well with other industrial development. Sawmill residues make a cheap and plentiful supply of raw material, much of which still goes up in smoke from incinerators rather than into pulp plants which could make good use of it.

Both the West and South have good water supplies--crucial for the pulp industry, which needs 39 thousand gallons to produce a single ton of paper!

The pulp industry is growing in Minnesota and nearby states--but not as fast in the other regions. The Northern states market nearly $2\frac{1}{2}$ times as much pulpwood as they did half a century ago, and the outlook is for a further increase as pulp needs continue to grow.

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Next: A closer look at Minnesota's forest economy.

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
November 8, 1963

To all counties
(1st of two stories)

Immediate release

MASTITIS TESTS
NEED CLARIFICATION

Tests for detecting mastitis in dairy cattle need to be clarified, says V. S. Packard, extension dairy products specialist at the University of Minnesota.

With some interstate milk shipments being checked for presence of mastitic milk, more information is needed on this problem.

Mastitis is diagnosed as the inflammation of a cow's udder. Two methods have been developed for routine testing to uncover disease on the farm. The whiteside test involves mixing one drop of normal sodium hydroxide with five drops of milk on a glass plate, stirring for 20 seconds and noting the degree of coagulation.

Negative samples appear similar to normal milk. Positive samples vary from a slight precipitate to a thick viscous mass and are graded 1, 2, or 3 depending upon the extent of coagulation.

The California mastitis test is performed by mixing equal amounts of the test liquid and milk on a plastic paddle. Formation of a gel is considered a positive reaction. The test liquid is a detergent. Several different detergents have been used with varying results.

Some question concerning the reliability of the California mastitis test exists. Stability of milk to the test liquid is possibly influenced by bacterial action on milk. Factors associated with bacteria growth, therefore, may be the cause of false readings.

The catalase test is most widely used by state and local health officials. In this test, hydrogen peroxide is added to milk and the volume of oxygen released is measured. Catalases are enzymes that have the ability to break down hydrogen peroxide to water and oxygen. Because catalase content of milk tends to parallel cell count, a measure of its activity can be used to detect mastitis.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
November 8, 1963

To all counties
(2nd of two stories)

Immediate release

MASTITIS IS LINKED
TO MANAGEMENT

Correct management practices are important in mastitis control, say dairy specialists at the University of Minnesota.

Good milking methods help in the prevention of the disease. Washing and massaging the udder and teats are necessary for clean milk production and also for stimulating milk letdown.

Use of the strip cup also stimulates letdown and detects abnormal milk which must be kept out of the tank or can. The teat cups should be attached as soon as possible after letdown occurs, not before. They should be removed when the cow has been milked out.

Milking machines must be in good operating condition. Flabby or checked teat cup liners need to be replaced to give protection against mastitis. Vacuum lines should be rinsed at least every 3 months or at any time milk is drawn into the line. Pulsators must be kept clean and operating freely, and replace worn ones.

Udder injuries or exposures to cold, wet surfaces or drafts are responsible for much mastitis. Elimination of high door sills, poor fences and junk in the cow lot will provide protection. Sufficient bedding will keep udders dry. In remodeling or building barns make stalls long enough and wide enough to reduce stepped on teats and udders hanging over gutter edges.

Do not market milk from cows which are being treated for mastitis. Milk should be withheld for at least 72 hours following treatment. Keep abnormal milk out of the milk supply. Good herd management with correct milking procedures and equipment maintenance can help reduce your mastitis problems and insure a good market for your milk.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
November 8, 1963

To all counties

Immediate release

IN BRIEF.....

Laying hens need more feed in cold months for added energy. A University of Minnesota poultry scientist, Paul Waibel, suggests a high-energy type feed, such as a corn-soybean combination. With such a ration, the hens are less likely to tax their ability to eat enough.

* * * *

Adult cankerworm moths have been emerging in massive numbers this fall, and are invading homes in some areas of the state. But John Lofgren, extension entomologist at the University of Minnesota, says little can be done now. Your best approach, if they're on your premises, is to plan a spraying campaign next spring, when the worms begin to feed. The outbreak so far has been reported in the northern suburbs of the Twin Cities and as far northwest as Moorhead.

* * * *

Cold weather and carbon monoxide: Glenn Prickett, extension safety specialist at the University, warns of greater dangers from carbon monoxide gas as cold weather sets in. While the danger occurs in closed garages where autos, trucks and tractors are running, monoxide gas may also come from any internal combustion engine. And it can come from stoves and furnaces that don't burn fuel completely. These fumes can kill--but they can't be seen, smelled nor tasted.

* * * *

Wet corn apparently isn't much of a problem this fall in Minnesota. With the warm, dry weather of recent weeks, the average moisture content is down around 19 percent, according to the Crop Reporting Service in St. Paul. Extension agronomist, Harley Otto, says farmers using cribs should have little trouble in drying their crop to meet market specifications--which call for about 13 percent moisture.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
November 8, 1963

To all counties
ATT: HOME AGENTS
Immediate release

CHOOSE COLOR
FIRST IN
BUYING CARPET

First in a series on buying and
caring for carpets and rugs

Where do you start in buying a carpet?

Selecting a carpet from among the many colors, fibers and price ranges on the market is one of the most difficult decisions in buying home furnishings, points out Mrs. Myra Zabel, extension home furnishings specialist at the University of Minnesota. Because purchase of a carpet or rug means a large outlay of money, that decision will affect the family budget over a considerable period.

Perhaps the point at which to start in making a decision is color, Mrs. Zabel says. You will need to decide if you want to keep your floor neutral in tone so you can build several different color schemes around it, or if you want to select a particular color or pattern and then build your color scheme around it for the rest of the furnishings. Pick the color you want to live with for many years.

The best choice is a medium value of the color you like best, halfway between dark and light. Dark-colored carpets show dust tracks and lint. On the other hand, a very light-colored carpet will be difficult to keep clean if traffic and soil are heavy. Blues and greens in the deeper tones probably have the highest ability to conceal soil. A small-figured or textured pattern in two or more colors will be more practical than a solid color.

There is probably no one fiber that will be best for any particular room or family situation, Mrs. Zabel says. She suggests learning the characteristics of each fiber and then deciding which will perform to most nearly meet your needs.

Density of the surface yarns is one of the best guides to good quality. A high pile adds luxury but is less important than density. The backing should be firm, strong and closely woven.

How much to pay for a carpet is a decision each family will have to make individually. But buy as good a carpet as you can afford without putting a permanent crimp in the family budget, Mrs. Zabel advises. You usually get no better carpet than you pay for. Be sure to buy from a reliable dealer and manufacturer who can stand behind his product.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
November 8, 1963

To all counties
4-H NEWS
Immediate release

4-H F I L L E R S

The number of years a 4-H'er stays in club work is closely related to his parents' interest in 4-H, according to a study made by the University of Wisconsin. Of members in club work only one year, a third indicated parent interest in the program. About half the boys and girls in 4-H for two or three years expressed parent interest. But of the young people in club work for four years or more, 91 percent indicated parent interest in the program.

* * * *

Safety is the most popular project of U. S. 4-H'ers. Over 800,000 members are working annually to raise safety standards and eliminate hazards.

* * * *

More than 75 countries have developed educational programs for rural youth similar to 4-H Clubs in the United States.

* * * *

4-H helps members understand the why of democracy as well as the how. Each local club provides real-life experience in democratic action involving members, parents, volunteer leaders and supporting community groups.

* * * *

4-H volunteer leaders in the U. S. assist with nearly one million club meetings each year. During the early years of 4-H, school teachers served as leaders. Today these volunteers come from various occupations and include many homemakers, businessmen and farmers, says Leonard Harkness, state 4-H Club leader at the University of Minnesota.

* * * *

The combination of 4-H and a college education is high 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 available with only 7,000 agricultural graduates to fill them.

* * * *

Career exploration is an expanding part of 4-H informal education, particularly for older members.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 12, 1963

Immediate release

PLANS AVAILABLE FOR THREE-BEDROOM HOUSE

If you've been searching for a three-bedroom house plan that is economical and puts interior space to good use, plan no. 7139 from the U. S. Department of Agriculture may fill the bill.

The plan is for masonry wall construction. It is appropriate for farm or city.

The house is rectangular and features rooms that are generous in size with plenty of storage, according to Mary Muller, extension home improvement specialist at the University of Minnesota. A coat closet opens from the living room. Near the rear entrance and opening into the kitchen is a wrap closet with a lavatory.

Laundry facilities are in the basement.

The patio adjoining kitchen and carport provides an easily supervised play area for small children in good weather. It may be developed as an outdoor living area for informal dining and entertaining. The storage room off the patio is handy for storing outdoor furniture, games and barbecue equipment.

Plan no. 7138 is similar to 7139 but for frame construction, with or without basement.

A descriptive leaflet of plan no. 7139 or 7138 is available from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101. Copies of building plan no. 7139 or 7138 may be obtained for 75 cents from Blueprint Room, Agricultural Engineering Department, University of Minnesota, St. Paul, Minn. 55101. Money must accompany the order for the plan.

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63-322-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 12, 1963

Immediate release

32 MINN. 4-H'ERS WIN TRIPS TO NATIONAL CLUB CONGRESS

Thirty-two Minnesota 4-H Club members have been named winners of expense-paid trips to the 42nd National 4-H Club Congress in Chicago Dec. 1-5 in recognition of their achievements in projects, demonstrations and leadership.

They are among nearly 1,500 4-H boys and girls from all 50 states and Puerto Rico who will arrive in Chicago the weekend after Thanksgiving for one of the most important events on the 4-H calendar. The delegates, who will compete for national honors, including about a hundred thousand dollars in scholarships, are state and regional winners in 4-H projects and activities carried out under the supervision of the Cooperative Extension Service. They will receive the trips to the congress from more than 55 business firms, foundations, associations and individuals who provide funds for the various 4-H programs.

One of the 32 Minnesota 4-H'ers has won his trip as a sectional award in forestry. Lance Sorenson, Welch, selected as one of 12 in a blue award group from different areas in the nation.

Other club members who will receive trips to Chicago and the field of achievement for which they have won their awards are: Jerome Flottesch, Callaway, field crops; Dennis Gapinski, Foley, electric; Henry Hansen, Sauk Rapids, tractor; Shirley Marti, Sleepy Eye, clothing; Marvel Sinner, Moorhead, livestock; David Baker, Kiester, conservation; Nancy Amundson, Chatfield, home improvement; Jeanne Buross, Peterson, home economics; Rosalie Nunn, Champlin, entomology; Patricia McCulley, Maple Plain, Margaret Heublein, Lewiston and Nile Newburn, Rushmore, achievement; Mary Geurs, Hamel and Sue Oyster, Hewitt, foods and nutrition.

(more)

add 1 -- club congress

Sheryl Rademacher, Round Lake, home yard improvement; Robert Blaeser, Mahnomen, safety; Beverly Dostal, Hutchinson, canning; Ruth Ann Rolf, Glencoe, bread; Mary Lipke, Stewart, dress revue; Ken Christenson, Jr., Atwater, poultry; Glenn Freitag, Litchfield, shop; Esther Kreun, Iona, garden.

Terry Lorch, Rochester, swine; Roger Sonnenberg, Vergas and Carol Meyer, Winona, leadership; Clem Sammon, Faribault, dairy; Sharon Gordon, Kerkhoven, health; James B. Spangler, Janesville, recreation; Andrew Overby, Wolverton, sheep; Ronald Ochsendorf, Canby, beef; John Goelz, Morton, agriculture.

Mrs. Allan Espeset, Rushmore, a 4-H adult leader in Nobles County for 12 years, has been selected to represent 11,000 Minnesota 4-H adult leaders at the National Club Congress. Mrs. Harriet Bakehouse, Steele County home agent, will represent Minnesota county extension agents.

Accompanying the group will be state 4-H staff members Leonard Harkness, Stanley Meinen, William Milbrath, Evelyn Harne and Mrs. Claudia Woker, and Harlund Routhe, state leader for extension programs, University of Minnesota.

Club members who have won trips to the International Livestock Exposition in Chicago Nov. 29-Dec. 7 include Lee Potzler, Danube; Leonard Wohlman, Renville; Roger Hardy, Sacred Heart; Gene Rouse and Bill Manthei, Olivia, members of the state championship general livestock judging team.

A get-acquainted dinner is planned for the Minnesota delegation Friday, Nov. 29, at 6 p.m. in the Student Center on the University of Minnesota's St. Paul Campus. The group will leave for Chicago from St. Paul Saturday morning, Nov. 30.

The Conrad Hilton Hotel will be headquarters for the 1,500 4-H delegates, who will represent nearly 2,300,000 club members in the nation and Puerto Rico. The 4-H'ers will be joined at the congress by some 500 leading businessmen and women who support 4-H work, by state and county 4-H leaders, educators and international guests.

During their stay in Chicago the delegates will serve as discussion leaders, presiding officers and participants in many events centered in the theme, "Citizenship in Action." They will visit Chicago art institutes and museums, hear the Chicago Symphony Orchestra and will be entertained by donor companies with dinners, tours and special programs.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 12, 1963

Immediate release

SOILS AND FERTILIZER SHORT COURSE DEC. 9 AT UM

Soil management in foreign lands, micronutrients and Minnesota soil surveys will be among the topics featured at the Soils and Fertilizer Short Course, Dec. 9 on the St. Paul Campus of the University of Minnesota.

The course is open to all interested persons, according to Curtis Overdahl, extension soils specialist and coordinator of the course, which is offered through the University's Department of Agricultural Short Courses.

Speakers will be representatives of the University of Minnesota, other colleges, the U. S. Department of Agriculture and industry.

W. P. Martin, University of Minnesota soils science head, will discuss "Our Soil Management Responsibilities to Developing Countries," and Sherwood O. Berg, dean of the Institute of Agriculture, will talk on "Changing Functions of the Institute As They Relate to Business and Industry."

Effects of fertilizer on corn will be discussed by J. T. Murdock, soils scientist from the University of Wisconsin and H. A. Arneman, Minnesota soils scientist, will report on Soils of Minnesota, a new publication.

Secondary and micronutrients will be discussed by A. C. Caldwell and J. M. MacGregor, Minnesota soils scientists, R. A. Olson, soils researcher from the University of Nebraska, and R. D. Munson, representative of the American Potash Institute.

Soils problems on idle acres will be the topic of Orville Gunderson, extension soils agent in western Minnesota. Robert Holt, U. S. Department of Agriculture researcher at Morris, Minn., will report on soil temperature as it affects corn growth.

The corn root worm problem of 1964 will be analyzed by J. A. Lofgren, extension entomologist at the University of Minnesota.

Ralph Nichols, rhetoric department head at Minnesota, will discuss barriers to effective communication in competitive selling.

Persons wishing for more information may contact the Department of Agricultural Short Courses, University of Minnesota, St. Paul 1. ### 63-320-pjt

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Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 14, 1963

Immediate release

CEREALS DEFICIENT IN THE AMINO ACIDS

Amino acid deficiencies in cereal grains result in only a fraction of health problems in the United States, but have a much greater consequence on the world at large, says I. E. Liener, biochemist at the University of Minnesota.

Cereal proteins contain only half as much body building materials as the proteins from animal sources. Adding the animal protein lysine to cereal proteins restores a normal rate of growth.

The people of the United States have an unlimited supply of animal protein in the form of eggs, milk and meat products to provide a diet of high enough nutritional value to meet body building needs.

There are exceptions of individuals who do not eat a varied diet. This may be due to individual likes and dislikes of certain foods or perhaps a program in weight reduction. It may be necessitated for health reasons as in the case of an allergy to certain foods.

These situations are not normal and do not constitute sufficient justification for the widespread supplementation of all cereal proteins with lysine, claims Liener.

(more)

add 1 -- amino acid deficiencies

To meet the limited need that may exist, specialty items as lysine-fortified bread, biscuits and breakfast cereals are now beginning to appear in the grocers' shelves.

On the world-wide scope, protein malnutrition is the most serious and widespread nutritional deficiency. Particularly in Central and South America, Africa, India and the Far East.

This problem stems from the fact that meat protein is not consumed to any appreciable extent in these countries.

Extensive clinical tests have conclusively demonstrated that when lysine is added to native diets containing cereal grains a marked improvement is evidenced in the health and well-being of the people.

Because of the results of these tests intensive efforts have been made by chemical manufacturers in this country to produce lysine on a large scale. It will be used as a food supplement in much the same way as vitamins are now supplied to enrich processed foods.

The cost per person of lysine supplementation would run \$2 to \$3 per year. This would be a small price to pay toward eliminating the disease and social unrest which is now plaguing large segments of the world's population, says Liener.

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63-323-wlb

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 14, 1963

*For release Monday, *
*Nov. 18, 11:00 A.M. *

ALFALFA EVALUATION METHODS REFINED

DENVER, COLO.--Agronomists are refining their research methods for determining the value of different varieties of alfalfa.

It makes a lot of difference when comparing the performance of alfalfa varieties whether you cut them at a specified stage of maturity or whether you cut them all on the same day.

Laddie J. Elling, agronomist at the University of Minnesota, reported this morning at the meeting of the American Society of Agronomists on research dealing with the affect of harvesting schedules on the performance of alfalfa varieties.

Seven different varieties of alfalfa were harvested under three harvesting schedules. In one set of plots, each variety was harvested three times each year at a specific stage of maturity. In a second group of plots, the schedule was three times each year on the same day and in the third set of plots, the schedule was two times each year.

The characteristics of each variety largely determined its performance. For instance, a variety with fast regrowth outperformed a variety with very slow regrowth when both were harvested on the same day. However, when these two varieties were harvested at a specific stage of maturity, there was little difference in performance.

The research conducted at the University of Minnesota clearly demonstrated that yield and quality of the forage depends upon the time of cutting. It was also shown that the percent of leaves drops rapidly when cutting is delayed.

Elling emphasized that care must be taken in research work to group varieties of alfalfa in order to get fair evaluations of production.

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63-324-ks

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 14, 1963

Immediate release

TURKEY GOOD BUY FOR THANKSGIVING

Thanksgiving dinner planned around a golden-brown, tender roast turkey with cranberries as the accompaniment is number one choice for most Americans.

Good news for consumers is that the traditional Thanksgiving Day pair will be in plentiful supply and good buys for the feast day. Turkey production is second to the 1961 record crop. Supplies of cranberries are ample--from a harvest a tenth greater than average.

Turkeys will be available in practically any size to fit family needs, according to Robert Berg, extension poultry specialist at the University of Minnesota. Sizes vary from big tom turkeys for the large crowd, smaller hen turkeys, young turks about the size of hen turkeys and the smaller fryer-roasters. Turkeys packaged as "young turks" are young tom turkeys weighing from 10 to 16 pounds.

Prices of turkeys will be about the same as last year or slightly higher. Hens normally sell at slightly higher prices than toms. Toms and hens are equally tender, however, Berg says.

Widely available throughout the state this year are turkey boneless roasts, made up of both white and dark meat. Prices of these roasts are naturally higher than for regular turkeys because there is no waste.

Stuffed turkeys are also on the market as a convenience to homemakers who do not wish the work of stuffing the bird.

To be sure you are getting top quality in the turkey you buy, look for the shield carrying the U. S. grade A label. Berg also recommends buying your turkey several days before Thanksgiving so you will get the size you want.

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63-325-jbn

Department of Information
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Institute of Agriculture
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St. Paul 55101 -- Tel. 647-3205
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Immediate release

DATES SET FOR RURAL ART SHOW

Dates for the 13th Rural Art Show held annually on the University of Minnesota's St. Paul Campus in the Student Center Gallery will be March 15 through April 3, 1964.

But the event will henceforth be known not as the Rural Art Show but as the Minnesota Town/Country Art Show. The change in name represents an attempt to describe more accurately the participants in the show--town and country amateur artists from throughout Minnesota, according to A. Russell Barton, coordinator, and LaVern A. Freeh, head of the Department of Agricultural Short Courses at the University of Minnesota.

Amateur artists from communities of 25,000 population or less will be permitted to enter their work in the show this year. Previously the show was restricted to artists in communities of 15,000 or less. An entry fee of \$2 will be charged to help defray expense of putting on the show and aid in making purchase awards.

Entry blanks and further information on the event will be available in January from Minnesota Town/Country Art Show, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101.

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University of Minnesota
St. Paul, Minnesota 55101
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To all counties
Immediate release

IN BRIEF.....

Absorption of minerals in grain is at least partly determined by heredity, University of Minnesota agronomy research shows. Some barley varieties had four times as much accumulation of strontium-89 in the seed as did other varieties--even when the same amount was made available to the roots. The finding has implications both for the effect of radioactive fallout, and for the more general questions of how minerals move through plants and deposit themselves in the fruit.

* * * *

Elemental sulfur on sulfur deficient fields: If sulfur is added in elemental form, its availability to plants may depend on a number of things--such as size of sulfur particles, soil temperature, and the kind of fertilizer in which the sulfur is mixed. Elemental sulfur must be oxidized before plants can use it. Soils scientists at the University of Minnesota found that oxidation is greater when the sulfur has been put through a screen of 100 mesh. Also, oxidation was greatest when soil temperature was about 86 degrees Fahrenheit. And in these tests, sulfur was oxidized to a greater extent when included in nitric phosphate and diammonium phosphates than when mixed with triple superphosphates.

* * * *

Just as hunters need a license to harvest deer, so is a permit required to harvest a Christmas tree. Bill Miles, extension forester at the University of Minnesota, says the permit requires the written consent of the landowner to cut and remove evergreen trees, and applies to both private and public land. The permit must be carried by the person cutting and transporting the trees.

* * * *

-more-

add 1 - in brief

Alfalfa evaluation methods are being refined. University of Minnesota agronomists have found that performance comparisons of different varieties depend on whether the varieties are cut at a specified stage of maturity or all on the same day. For instance, a variety with fast regrowth outperformed a variety with slow regrowth when both were cut the same day. But when harvested at a specific stage of maturity, there was little difference in performance.

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Department of Information
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University of Minnesota
St. Paul, Minnesota 55101
November 18, 1963

To all counties
Immediate release

CROSSBREEDING HAS
LITTLE TO OFFER
TO HOLSTEIN OWNERS

Crossbreeding, whatever its value for other livestock, apparently has little to offer for a herd of Holstein dairy cattle.

Dairy cattle scientists C. W. Young and C. L. Cole at the University of Minnesota reach that conclusion after several years of experiments with herds at the State Hospitals at Moose Lake and Willmar.

Brown Swiss-Holstein crossbreds were no better than Holsteins at Moose Lake, and were decidedly inferior at Willmar, the results have shown.

So considering the fact that Holstein bulls are more readily available through artificial breeding associations, Young and Cole say the study suggests that dairy-men would do well to breed Holstein cows to Holstein bulls.

The research began in 1956 when half the cattle at each institution were bred to Holstein bulls and half to Brown Swiss. The following year the two groups were switched, so that cows first bred to Holstein bulls were then bred to Brown Swiss and so on.

The crossbreeding was discontinued several years ago, but the research men have been checking production of heifers produced by these matings. They have first lactation records on 51 Swiss-Holstein crossbreds at the two institutions, and compared them with Holsteins in the same herds.

At Moose Lake, the crossbreds freshened at about the same average age as Holsteins, averaged 90 pounds more milk and 8 pounds less fat for the first lactation. The Holsteins exceeded the crossbreds in fat test--even though Brown Swiss as a breed are higher testing than Holsteins.

At Willmar, the results were decidedly different. There, 41 Holsteins averaged 9,210 pounds of milk and 33½ pounds of fat during their first lactations. This was 1,230 pounds more milk and 32 pounds more fat than the average of 3½ Swiss-Holstein crossbreds.

add 1.- dairy crossbreeding experiments

Furthermore, 15 of the 34 crossbreds at Willmar were culled before completing their first lactation, because of inferior production.

After completion of their second lactations, the Holsteins and Swiss-Holsteins were again nearly equal at Moose Lake, while the crossbreds were inferior at Willmar.

Why the difference between the two institutions? Young and Cole say it may be that the breeding association serving the herd at Moose Lake had Holstein and Brown Swiss bulls of about equal merit, while the organization serving Willmar had better quality Holstein than Brown Swiss bulls.

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Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
November 18, 1963

Second in a series on
forestry resources

FORESTRY CONTRIBUTES
NEARLY HALF BILLION
TO STATE ECONOMY

Timber-based activities in Minnesota add nearly a half billion dollars to the gross national product in a year.

According to U. S. Forest Service data for 1958, timber-based activities added \$456 million, or nearly a half billion, to the GNP that year. These estimates, say University of Minnesota foresters, include transportation, marketing, construction, primary and secondary manufacturing, harvesting and forest management.

Minnesota's timber-based industries provide full or part time employment to nearly 60,000 people. Providing jobs for this number of employees means at least part support for between 100,000 and 150,000 people. The foresters say that in view of the decline in agriculture in northeastern Minnesota, the importance of the forest industry to economic life of the region is readily apparent.

What is the future for the forest industry? Those concerned with resource development, say extension foresters William Miles and Marvin Smith, might consider some central facts about the forest resource and current status of the industry itself.

A first fact to note is that while it isn't stored in bins, elevators or warehouses, we have a surplus of gigantic proportions in our woodlands. Unlike grain or livestock products, the oversupply of forests just doesn't get harvested--or hasn't in the past. Much of this surplus is in aspen.

One problem for the future is a rather unpromising outlook for lumber. Of the 1961 U. S. production of 32 billion board feet of lumber, less than 1 percent came from Minnesota. In the Upper Midwest as a whole, the number of employees in lumber production has dropped 15 percent in the past decade.

add 1--forest economy

One reason for the lumber decline is stiffer competition from the West and South. A second is increased use of substitutes--such as plywood, pressed wood, and metals--in building. A third is reduced growing stock large enough for saw mills and a fourth reason is increased technology that gets the job done with fewer workers.

Of the \$245 million worth of forest products harvested in Minnesota in 1962, \$21 million was accounted for by lumber and \$198 million by pulpwood.

The bulk of the forest employment in Minnesota is in northern counties--although that fact doesn't mean forestry has no future in other areas. Of the state's 18 million acres of potential commercial forests, 81 percent are in northeastern Minnesota, with 11 percent in southeastern counties and 8 percent in the western part of the state.

What are the important species?

Softwoods occupy 4.5 million acres, mostly in northeastern counties, or about a fourth of the total. These include all conifers.

Hardwoods account for 9 million acres, of which 6.5 million acres are in the northeast, about a million are in western counties and 1.5 million in the southeast.

Aspen and birch are the principal hardwoods in acreage, occupying 36 percent of the total commercial forest acreage, or 6.5 million acres in the state as a whole. Other hardwoods make up 14 percent of all commercial forests.

The 18 million acres of potential commercial forests includes about 4.5 million acres of non-stocked land--mostly in northern Minnesota and consisting mostly of brush but which could be developed into productive forest land with intensive forest management.

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NEXT WEEK

BRIGHT FUTURE
SEEN FOR PULPWOOD
AS FOREST RESOURCE

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
November 18, 1963

To all counties

ATT: HOME AGENTS

Second in series on buying and
caring for carpets and rugs

KNOW FIBERS
BEFORE YOU SHOP
FOR CARPETS

What is the best fiber to choose for carpeting from the many available on the market?

Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota, says no one fiber is best for any particular room or family situation. But if you're going shopping for rugs or carpeting you should be equipped with a knowledge of the characteristics of each fiber and then decide which will perform most satisfactorily for you.

However, the fiber content of a carpet or rug does not, by itself, guarantee quality or performance. So remember to consider fiber content in relation to general quality of construction. Density of yarns is always one of the best guides to quality.

Mrs. Zabel gives these characteristics of various carpet fibers:

- Wool. Durability, soil resistance, resilience, adaptability to styling and warmth are wool's traditional qualities which are at their best in medium-to-higher priced carpets. Wool is easily cleaned. Good quality wool carpets will cost from about \$13 to \$20 a square yard. Bargain-priced wools will not wear well.
- Nylon. Abrasion resistance is an outstanding characteristic of nylon carpets. Nylon is more resistant to hard wear than wool and offers outstanding value in medium-priced carpets for heavy traffic. Crush resistance is moderate to good. Because nylon resists rapid water absorption, water-soluble stains are fairly easy to remove; oily stains, however, may be somewhat difficult to remove. Continuous filament nylon is designed to eliminate the tendency to fuzz and pill.
- Acrylics. Acrilan, creslan and orlon are the synthetic fibers most closely resembling wool. They have good crush resistance, soil resistance and wearability.

add 1 - shop for carpets

- Modacrylics. These include dynel and verel and are used mostly in blends with wool, nylon and acrilan.

- Rayon. If the pile is compact, rayon gives good service in low traffic areas such as bedrooms. Rayon is economical in price, but tends to crush.

Multi-colors and uncut pile will show least crushing and soil.

- Acetate. Like rayon, acetate is not recommended for heavy traffic. It has moderate resilience and good soil resistance.

- Cotton. Low in cost, cotton is long wearing but tends to crush and soil. It is best suited to low traffic areas. Medium colors are most practical. Small cotton rugs can be laundered easily.

- Blends. A carpet will perform, like the major fiber in the blend. Generally, at least 20 to 30 percent of a fiber must be used before its characteristics are apparent. Nylon is used in blends to increase wear, wool to increase resilience, rayon for its price advantage.

Man-made fibers are mildew resistant and mothproof. Most wool carpets today are permanently mothproofed.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
November 18, 1963

To all counties

4-H NEWS

Immediate release

MAKE CHRISTMAS
GIFTS NOW FOR
FAMILY, FRIENDS

Are you short on cash for Christmas gifts?

Family, friends, relatives--all will appreciate a gift you've made yourself.

And the gift you create is more appropriate and personal and can be less costly than what you might buy. Many such gifts will satisfy 4-H project requirements at the same time.

Gifts for the home, for homemakers and for children fit in well with the home improvement-family living project, says Mrs. Claudia Woker, assistant state 4-H club leader at the University of Minnesota. You might give toddlers a nest of four or five painted cans, painted clothespin toys, a toybox on rollers, bright-colored spool chains or stuffed toys made from your own designs or from commercial patterns. Always use lead-free paint. Avoid all sharp edges.

Bulletin boards and recipe files with holders are handy items for the kitchen. Or put your sewing ability to work on aprons for your mother and other homemakers.

Mothers also appreciate handmade dishtowels, hand towels, tablecloths, placemats and napkins. You can choose from a wide variety of materials--purchased linen to well washed feed or flour sacks. Apply decoration sparingly and follow the shape or line of the cloth or towel. Simple stitchery, applique or fringing give a finished but not fussy look to your gifts.

Helps for laundry, pressing and cleaning are useful and inexpensive presents for homemakers. A clothespin bag, laundry bag or shoe bag involves only simple sewing with sturdy material like denim or ticking. Bias seam tape gives a trim, easy finish to edges. For homemakers who have no pressing ham or "pounder," these are two more practical gifts to make.

-more-

add 1 - christmas gifts

Fathers always enjoy home cooking and baking. If homemade bread is a favorite of your father, why not give him a loaf of holiday bread at Christmas? Include coupons "redeemable" for another loaf each month of the year. Or do the same with pies, cakes or cookies. Candies, fruit cakes and fruit breads wrapped in colored cellophane make festive gifts for relatives, neighbors and teachers.

Design your own wrapping paper for the crowning touch. Finger painting is about the quickest technique; stencils produce more detailed Christmas motifs. Cut squares of your paper for matching cards.

--blk--

MSD
7-15-63
Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 19, 1963

*For release at 4:15 p.m. *
*Wednesday, Nov. 20 *

SEVERAL FACTORS INFLUENCE AVAILABILITY OF SULFUR TO PLANTS

DENVER, COLO.--Whether crops in a sulfur-deficient field can make use of added elemental sulfur seems to depend on how big the sulfur particles are, how warm the soil is, and the fertilizer in which the sulfur is mixed.

Such factors have a bearing on how well the sulfur is oxidized in the soil, according to research reported by two University of Minnesota soils scientists here today.

Sulfur is essential for plant growth. It is a protein constituent and occurs in plant hormones. Therefore, sulfur shortages may seriously affect crop yields.

Much cropland in north central Minnesota counties has been found to be sulfur-deficient.

One method of remedying sulfur deficiency is to add elemental sulfur. However, such sulfur must be oxidized to the sulfate form before plants can use it. As far as is known now, most of this oxidation occurs through the activity of soil microorganisms.

(more)

add 1 -- sulfur deficiency

Therefore, factors that favor the microorganisms involved should also favor sulfur oxidation.

Paulina Wang and A. C. Caldwell reported to the American Society of Agronomy on their studies of effects of sulfur particle size, rate of application, soil acidity, soil temperature and method of application on oxidation of elemental sulfur.

They found that the smaller the particles, the greater the amount of sulfur oxidized. The most oxidation was when the particles had been put through a screen of 100 mesh--meaning 100 openings per inch.

Temperature also had an important effect. Oxidation was greatest at about 86 degrees Fahrenheit and almost none was oxidized at freezing temperature. These results are consistent with the behavior of the particular microorganisms which are thought to be largely responsible for the oxidation of sulfur.

The temperature findings mean that if fertilizer containing sulfur were to be spread on a field in the fall, little sulfur oxidation would occur until the following spring when the soil warmed up.

There was also a difference in kind of fertilizer used. Sulfur was oxidized to a greater extent when included in nitric phosphate and ~~diammonium phosphates~~ than were mixed with triple superphosphates.

The nitric phosphate fertilizers used was 14-14-14, the diammonium phosphate was in 18-45-0 and the triple superphosphate was 0-42-0 in chemical analysis. The first number is percent of nitrogen, the second is phosphate and the third is potash.

Rate of application, soil acidity and method of application did not seem to affect the percent of sulfur oxidized.

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63-328-pjt

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 19, 1963

Immediate release

MINERAL ACCUMULATION IN GRAIN VARIES WITH GENETIC DIFFERENCES

DENVER, COLO.--Absorption of a mineral such as strontium by seed of a grain plant is at least partly determined by heredity, recent research has shown.

Some barley varieties have shown four times as much accumulation of strontium-89 in the seed as other varieties--even when the same amount was made available to the roots--a University of Minnesota researcher said here today.

While the finding is important for understanding the effect of radioactive fallout, it has broader implications for the more general question of how minerals move through plants and deposit themselves in the fruit.

Agronomist Lawrence H. Smith reported on the research at the American Society of Agronomy meeting here. He had made the studies by raising barley plants in soil containing known amounts of strontium-89 and calcium. Mineral content of the seeds was checked after the plants matured, through radioactive and chemical analysis.

In addition to looking for hereditary differences, Smith looked for mechanisms inside the plant that account for variation in strontium uptake--the mechanisms or processes which are under genetic control.

One possibility, Smith said, is that pectin compounds in the cell walls of the plant below the seed may "trap" the mineral on its way up from the roots. These pectin particles carry a negative charge, thereby attracting strontium-89 which has a slight positive charge.

One possible reason for varied strontium uptake, then, is that barley plants may differ in how much pectin they develop--a hereditary difference.

(more)

add 1 -- mineral uptake

One approach Smith used was to study the relative uptake of strontium and calcium. Since these two chemicals are physiologically quite similar, one might expect them to be absorbed by seed in constant proportions to each other. But such was not the case; the ratio of strontium to calcium accumulating in barley seed varied from one barley variety to another. The ratio was three times as high in some cases as in others.

This variation is one clue to the role of the pectin compounds in translocation of minerals. The less the negative charge of the pectins, the more calcium is trapped in relation to strontium.

These studies reported by Smith are part of a broad research program designed to develop a better fundamental understanding of intra-plant processes. Similar studies are being made with other plants and other minerals--such as phosphorus and potassium.

Other mechanisms besides the pectin compounds may be important, too, Smith says, and the importance of each mechanism may vary according to the type of plant and the environment. One, for example, is the oxalates--organic acids secreted by cells. It is known that if strontium moves near these acids, it can be precipitated by them.

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Department of Information
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University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 19, 1963

Immediate release

GENETIC NATURE OF STRONTIUM-89 STUDIED FURTHER AT UM

DENVER, COLO.--Increased understanding of how grain plants inherit differences in ability to accumulate such minerals as strontium-89 in the seed is being developed in University of Minnesota research reported here today.

Geneticist D. C. Rasmusson said studies with wheat suggest that the inherited characteristic is not limited to any one gene or chromosome, but that all or nearly all the chromosomes play a role.

Rasmusson made the report at the American Society of Agronomy meeting here.

Chromosomes are the microscopic, rod-shaped bodies in living cells that carry genes, or units of heredity.

Chromosomes occur in pairs, but the number of pairs varies with the species or variety of a species involved. Rasmusson studied wheat that has 21 chromosome pairs, and found that most pairs carry genes which determine ability to accumulate strontium-89 in the wheat grain.

Rasmusson's studies involved wheat lines developed by detailed crossing techniques that make it possible to study genetic effect of one chromosome pair at a time.

Research such as this shows that the ability of a grain variety to accumulate mineral in the grain can be controlled to some extent at least by plant breeders. Interest in this problem goes far beyond strontium-89; the general principle may apply to many other minerals.

Heredity is not necessarily the only factor influencing mineral uptake in plants, but has shown to be one of the major influences. Environmental conditions may also be important.

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63-327-pjt

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 21, 1963

Immediate release

FOUR MINNESOTANS HONORED BY 4-H

Four Minnesotans who are active in helping 4-H members have been chosen to receive 4-H alumni recognition awards.

They are Mrs. Ruth Gebert Nelson, Cushing; Betty Ann Malcolm, South St. Paul; Charles Simpson, Waterville and F. W. Gehrman, Minnetonka.

They will receive plaques from Olin Mathieson Chemical Corporation Chemicals Division - Agricultural, Little Rock, Ark. The awards will be presented during the State 4-H Junior Leadership Conference in June.

The awards are given annually to honor former 4-H members whose accomplishments, following 4-H club membership, exemplify effective community leadership, public service, service to 4-H club work and success in their chosen careers.

A 4-H member in Mille Lacs County for nine years, Mrs. Nelson has been a leader of her local 4-H club for the past seven and for three years served with her husband as Rural Youth adviser in Morrison County. She is active in church and hospital work and in the Parent-Teacher Association. All four Nelson children have been active 4-H members.

In 1948 the Nelson family was selected by the Minneapolis Tribune as Representative Upper Midwest Family.

Mrs. Nelson was one of six chosen from Minnesota, Wisconsin and the Dakotas as Sears Citizen of the Jubilee Year in 1962. She had served as credit manager at Sears Roebuck Catalog Sales Office in Little Falls for two years.

Miss Malcolm is a past treasurer of Dakota County 4-H Federation and is at present treasurer of the Dakota County 4-H Junior Horse Show. A 4-H club member in Dakota County for 11 years, she later served as senior leader of the Lake Park 4-H Club. After her appointment as secretary to the Board of Directors of Stock Yards National Bank of South St. Paul, she was selected bank-school coordinator to work with schools in South St. Paul and Pine Bend on youth materials supplied by the bank and to arrange for tours of school classes. She has been closely associated with the Junior Livestock Show for many years.

(more)

add 1 -- 4-H honors

Active in church work and civic affairs, she is chairman of the Community Service Committee for Pilot Club, a women's service group. She is a former officer of the National Women's Committee of the American Institute of Banking, St. Paul Chapter, and secretary of the Toaster's Club of the American Institute of Banking.

Simpson operates 600-acre Tetonka Farms near Waterville. He has just completed three years as president of the American Soybean Association and is a member of the Soybean Council of America. For eight years he was president of the Minnesota Crop Improvement Association, is a charter member of the Le Sueur County Crop Improvement Association and has been a recipient of the Premier Seed Grower Award. He is a member of the corn advisory committee of the National Crop Association and is on the American Seed Trade Association's corn committee. He has received two world championships on corn at the Royal Agricultural Winter Shows in Toronto, Canada, several championships on grain at the International Show, Chicago, and numerous prizes at the Minnesota State Fair.

Simpson works with 4-H members in Le Sueur County, helping them to prepare grain exhibits and plan clean grain programs.

For 12 years he has been a member of the University of Minnesota's Agricultural Advisory Council.

Gehrman, at one time a 4-H member in Goodhue County, is continuing his interest in youth work by serving as president of the Hennepin County 4-H Foundation. 4-H has become a family affair, with his wife an adult leader and two sons active in many projects. Both boys have won trips to the National 4-H Club Congress in Chicago.

Now a member of the University of Minnesota staff, Gehrman helps to train veterinary students in his clinic. He has been a member of the University Agricultural Advisory Council since 1948.

Active in both state and national Veterinary Medical Associations, Gehrman has been president of the state organization, has served on many state committees and for four years was Minnesota delegate to the national meeting.

Among his civic activities are membership on the Wayzata school board, of which he is now president, and chairmanship of the Hennepin County League of Municipalities Land Planning and Growth Committee.

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63-329-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 21, 1963

Immediate release

HORTICULTURAL SOCIETY ELECTS OFFICERS

Wilbert G. Sindt, 1847 North McKnight Road, St. Paul, has been re-elected president of the Minnesota State Horticultural Society for 1964.

Carl J. Holst, 4225 Chowen Avenue South, Minneapolis, is the new vice president. He succeeds E. C. Lehman of Faribault in that position.

Elected to executive board terms of three years were Mrs. Lewis Handegaard, Hendrum and Mrs. G. C. VanSlyke, Northfield. Elected to a one-year term was Mrs. Edward Koempel, 702 South Wilder, St. Paul.

Sixteen winners of honorary awards for 1963 were announced by E. M. Hunt, 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 recipients are:

Honorary life membership--Mrs. August Neubauer, Gilbert.

Distinguished service certificates--Carl E. Stults, Eveleth; Joseph C. Friley, 203 Eighth Avenue East, Duluth; Melvin Bergeson, Fertile; Mrs. Wesley McGuire, Cass Lake; and Mrs. Sever Sletten, Bagley.

Award of merit certificates--Albert I. Nelson, 3404 Snelling Avenue South, Minneapolis; A. F. Shira, Homer; Mrs. Elmore Greening, 1007 Fifth Street N.W., Austin; Rollo F. Dean, Blue Earth; Mrs. Robert Sanford, Palisade; Mrs. A. E. Eske, Litchfield; Mrs. T. J. Rouleau, 4105 West Eighth Street, Duluth; Mrs. William Russell, Remer; Miss Geneva Ovrum, Thief River Falls; and Mrs. G. C. VanSlyke, Northfield.

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63-330-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
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Immediate release

RAINFALL INTERCEPTION RESEARCH LINKED TO CONSERVATION PROBLEMS

If you've ever stood long under a tree in a rainstorm, you've noticed a phenomenon crucial to soil and water management.

At first, the tree probably kept you pretty dry. But after a time, more and more rain started coming through and you were lucky if you didn't get soaked after all.

Had you looked, you would have also noted water flowing down the trunk as the rain continued.

In this experience were three components of rainfall in a forest--interception, throughfall and stemflow. Each is important to the forest manager in deciding how his practices affect the amount, timing and quality of water flowing to rivers, streams and lakes.

Foresters D. B. Thorud and D. F. Duncan at the University of Minnesota, have been studying these processes and their significance for conservation.

Only two of these components, throughfall and stemflow, may enter the soil mass or move over the soil surface to streams. Rain intercepted by the forest canopy, however, evaporates and is not available for use.

Many experiments, Thorud and Duncan say, show that interception losses commonly account for 20 to 30 percent of the seasonal rainfall for conifers and 5 to 15 percent for hardwoods.

Since rainfall interception is such an important factor, Thorud and Duncan did some experiments to find ways to decrease this loss. In the Allison plantations owned by the St. Paul Water Department, they tried to reduce interception surfaces by pruning, removing about half the live crown of 30-foot red pine trees.

(more)

add 1 -- rainfall interception

They checked stemflow by encircling tree trunks with lead gutters that diverted water to barrels. They measured throughfall and total rainfall with gauges.

Unpruned trees intercepted slightly more than a fifth of the seasonal rainfall. Stemflow accounted for 2.6 percent and throughfall for about 76 percent.

With pruned trees, however, there were some differences, depending upon how much rain fell in a given storm.

For storms with least total precipitation (less than .16 inches) the throughfall averaged less than a third of the total for unpruned trees, compared to nearly two-thirds for pruned ones.

For storms in which more than .16 inches fell, pruning reduced stemflow from 2.5 to 1.4 percent, but made no appreciable difference in amount of throughfall.

Apparently, then, interception moisture loss can be reduced somewhat through pruning.

The foresters are also checking on whether intercepted rainfall constitutes a total loss to the moisture supply. One possibility, for example, is that intercepted rainfall may reduce transpiration, the normal water loss from soils through leaf surfaces.

Thorud and Duncan experimented with artificial rainfall on 6-year-old ponderosa pines. Their preliminary results show that about 10 percent of the intercepted rainfall was actually saved in reduced soil moisture loss. So 90 percent seems to be a true interception loss.

These studies, reported in the current issue of Farm and Home Science, are part of an overall watershed management research program aimed at learning what happens to rain and snow falling on forested lands. Since about half of Minnesota's water comes from forested areas, management practices have special significance for water conservation.

Farm and Home Science is a publication of the University's Agricultural Experiment Station.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 22, 1963

*For release at noon, *
*Monday, Nov. 25 *

CONTINUING EDUCATION EFFORTS OF INSTITUTE OF AGRICULTURE EXPLAINED

How three major continuing education efforts of the University of Minnesota are approaching the problems of rural Minnesota was explained today by Sherwood O. Berg, dean of the University's Institute of Agriculture.

Berg told the annual meeting of the Minnesota Farm Bureau Federation, at the Radisson Hotel in Minneapolis, of the Institute's activities in rural-urban leadership seminars, rural areas development, and farm and home development.

These educational efforts, Berg said, reflect the newer approaches and programs developed by the Institute and the rest of the University to meet the changing technological conditions in Minnesota and their resultant social and economic impact.

Berg had this to say about the Institute's efforts in these areas:

1) Rural-urban leadership seminars. Such seminars, held around the state in recent years, have three main goals, Berg said. First, they are to help rural and urban leaders define and discuss together public affairs issues, local and national scope yet important to the entire community. Second, they help leaders develop skills for analyzing situations and issues in their own communities. And third, they help seminar participants improve their abilities as community leaders in farm or civic organizations or political parties of their choice.

2) Rural Areas Development. This is a program carried out at the county level by local people, with University agricultural extension personnel serving in an initiating and educational capacity. Rural Areas Development, said Berg, is based on the premise that social and economic adjustments can best be achieved by well-organized planning. It is a process that utilizes all available resources, with local organizations representing all interest groups in the community. Eighty counties are either organized into area development committees or are organizing, and some 11 counties have completed overall social and economic development plans (OSEDPs). The competency of the entire University is available for these projects, Berg said.

(more)

add 1 -- Berg, Farm Bureau address

3) Farm and Home Development. This is a program annually involving some 600 to 800 families in 65 counties, according to Berg, reflecting the philosophy that the income resource problem can be dealt with through educational efforts. The program is directed toward younger families who wish to make farming a career and are planning the business in light of family goals. Such education approaches adjustment problems revolving around the family's ability to acquire resources, manage these resources effectively, and perceive and analyze off-farm opportunities. Families taking part in the farm and home development workshops are gaining an increased awareness of adjustment problems, improved ability to make management decisions, and a broader perspective regarding alternatives, said Berg.

Berg also mentioned other continuing education efforts conducted by the Institute of Agriculture through its Agricultural Extension Service and Department of Agricultural Short Courses.

One is the extension marketing project, aimed at helping develop markets for farm products, improving efficiency and assisting farmers, marketing firms and consumers in making sound decisions.

Another is the educational meetings held annually for swine, dairy, and beef producers, to satisfy needs of progressive livestock producers through sequential education. Such efforts cover breeding, nutrition, management and marketing in breadth and depth.

A third is consumer education, to aid families in developing judgment and skill as buyers in the market and to better use their money, time and human resources in providing every day needs.

Berg said that through such programs, the University and Institute of Agriculture must continually demonstrate its awareness and sensitivity to problems and needs of Minnesota. Such a land-grant institution, he said, must assume leadership as well as educational responsibilities.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
November 25, 1963

To all counties
(except Lake, St. Louis
and Cook)

Immediate release

MARKET PATTERNS
FOR HOG INDUSTRY
ARE CHANGING

Minnesota hog producers continue to use several market outlets, but the pattern within these market outlets is changing say agricultural economists at the University of Minnesota.

Terminal markets are still the most important outlet for slaughter barrows and gilts (50 percent), but this declined from 57 percent in 1956. Direct sales to packers showed the greatest gain in the 5-year period -- from 28 to 34 percent.

Virtually no slaughter barrows and gilts were sold at auctions in 1956 but slightly over 1 percent were marketed through this outlet in 1961. The researchers pointed out these trends are consistent with market developments elsewhere in the Midwest.

An important market outlet for feeder pigs in Minnesota is the special market. At a special market feeder pigs are sold by the producer directly to the buyer. A total of 17 percent of the feeder pigs in Minnesota are marketed in this way.

However, sales direct to farmers appear to have increased from 29 to 37 percent. Dealer and auction sales have remained the same at 40 percent and 6 percent, respectively.

Larger numbers of specialized feeder pig producers may have established reputations for their pigs which enable them to deal with the same finisher year after year. This trend has also been found in feeder cattle marketing.

If the hog industry becomes more specialized, the average size of the hog farm will probably increase. This may cause a continuation of marketing trends already established.

Separation of the farrowing and finishing functions will require establishment of more markets between feeder pig producers and finishers. Auctions and specialized markets may increase in importance, especially if the distance between farrower and finisher increases.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
November 25, 1963

To all counties
(except Cook county)

Immediate release

SHEEP FLOCKS
GET RECHECK
FOR SCABIES

Minnesota's sheep industry is undergoing a check this winter to maintain its recently-earned status as free from scabies.

All flocks in the southern tier of counties, bordering Iowa, will be checked by state and federal authorities, according to Raymond B. Solac, extension veterinarian at the University of Minnesota.

A third of the flocks will be reinspected in the second and third tier of counties in southern Minnesota. These include Lincoln, Lyon, Redwood, Brown, Nicollet, Le Sueur, Rice, Goodhue, Wabasha, Pipestone, Murray, Cottonwood, Watonwan, Blue Earth, Waseca, Steele, Dodge, Olmsted and Winona counties.

In all remaining counties of the state, one-tenth of the flocks will be reinspected.

Except for the southern tier of counties, the flocks for inspection will be selected randomly.

The heavier check in southern counties is based on the fact that Iowa is the only state bordering Minnesota that does not have scabies-free status.

Any flocks found infested with scabies will be dipped at no expense to the owner.

As part of the scabies surveillance program this winter, all sheep flocks moving through auction markets and public stockyards will be checked for scabies.

Minnesota received scabies-free status June 14, 1963, following an intensive inspection program that started in December, 1962, and involved inspection of nearly 18,000 flocks in the state. Only 15 flocks were found to be scabies infected.

Cooperating in the total program were the University's Agricultural Extension Service, vocational agriculture instructors, the Minnesota Department of Agriculture, the Minnesota Livestock Sanitary Board, and the U. S. Dept. of Agriculture.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
November 25, 1963

To all counties
4-H NEWS
Immediate release

4-H'ERS INVITED
TO COMPETE IN
SPEAKING CONTEST

"What is my responsibility in bettering inter-racial and inter-religious understanding?"

Minnesota's 4-H Club members will present their answers to this question in the 22nd annual statewide radio speaking contest, January - March, 1964.

Last year more than 1,000 Minnesota 4-H'ers participated in local competitions arranged under direction of club leaders and county extension agents.

All county contests must be held by Feb. 15, 1964, according to the State 4-H Club Office at the University of Minnesota. County winners will receive trips to district contests held between Feb. 15 and March 7. Top speakers from this level will be awarded trips to the state finals, March 23-24, on the University of Minnesota's St. Paul Campus.

All 4-H'ers are invited to enter their local or county radio speaking events if they are over 14 years of age but not over 21 years on Jan. 1, 1964.

_____ County Agent _____ urges each 4-H Club to have at least one representative in the event. Former state and reserve state champions are not eligible.

The Minnesota Agricultural Extension Service and the Jewish Community Relations Council of Minnesota co-sponsor the competition. Awards are given by the Jewish Council.

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

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
November 25, 1963

To all counties

Third in a series on
forestry resources

Immediate release

BRIGHT FUTURE
SEEN FOR PULPWOOD
AS FOREST RESOURCE

Think of 112 high-powered log trucks, each loaded with pulpwood and heading for one or more of Minnesota's dozen woodpulp mills in the next 60 minutes.

Right there you have an idea of the magnitude of the pulp and paper industry in the state: about 112 pulpwood loads per hour, or a thousand every working day, on the average, moving to the mills.

Pulp and paper is the forest industry with the brightest future, say extension foresters Marvin Smith and Bill Miles at the University of Minnesota, and it already far overshadows others in terms of sheer dollars added to the gross national product.

Of \$245 million worth of forest products harvested in the state last year, almost \$200 million was accounted for by pulpwood. And the volume is growing at about 3 percent annually, or close to the national average.

The pulpwood industry in Minnesota employs some 9,100 persons in paper, fiberboard and paper box factories, plus thousands of woods workers.

This industry owes its life to the incredible volume of paper and related products needed in a modern economy. And the demand will almost certainly continue to climb.

Minnesota, Wisconsin and Michigan each harvest near the million-cord mark in pulpwood each year. Growth here has not been as rapid as in the South and West, but is enough to be encouraging.

More dramatic than the increase in total pulpwood volume sent to the mill in Minnesota is the shift in kinds of trees being used. The shift is to aspen--or "popple" as popularly called--which holds the dubious distinction of being the most plentiful tree in the state.

Aspen volume for pulpwood has jumped by an even third since 1952, and now it accounts for about 37 percent of all pulpwood harvested in Minnesota. Meanwhile,

add 1 - bright future of pulpwood

there has been a decline in balsam, fir and spruce, while pine has been holding steady and use of miscellaneous hardwoods is on the increase.

While we usually think of pulpwood as coming from northeastern Minnesota, other areas aren't without importance. About one load of pulpwood in every 50 comes either from the Red River Valley or from the southeastern counties of the state.

Why the heavier use of aspen? The answer lies largely in improved technology, which makes it possible to process fibers of this hardwood for paper, cardboard, insulation and related products. Use of chipping machines, which might lower harvesting costs and use smaller trees and limbs, might also favor greater use of this abundant species.

Some Wisconsin mills have started using wood chips from the woods and Michigan and Minnesota mills may follow.

More pulpwood cut in this state is being used here. The actual pulpwood cut in the state in 1961 was down from the previous year, because of a drop in shipments to Wisconsin and Canadian mills. Practically none has been sent to Michigan mills since 1959.

In sum, the future holds good opportunities to use the pulpwood resources of Minnesota. But communities studying this resource need to be alert to the trends, Miles and Smith say.

True, pulpwood consumption has jumped from 220 pounds per person in 1910 to 780 in 1950 and 115 in 1960. But the question is whether industry growth in this region will match the demand increase. The most rapid growth, completely outstripping that of Minnesota and neighboring states, has been in the south and west.

In the South, a large acreage of private lands, low labor costs and favorable climates have been crucial factors. In the West, pulpwood expansion is favored by a large-scale integrated industry, cheap raw material and a plentiful and cheap supply of water.

A University forestry researcher recently compared pulpwood growth in different areas, and found that production for the state was almost identical to national production. Whether they will continue to move on a par is an open question, but the trends lean toward a favorable answer from a Minnesota point of view.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
November 25, 1963

To all counties
Immediate release

IN BRIEF.....

If you are considering a rearrangement of farm buildings you will certainly want to include plans for shelterbelt improvement of your property. Extension foresters at the University of Minnesota say you should consider the best location for new buildings in relation to drainage, prevailing winds, and soil factors. These three factors should then be looked at with permanent buildings, field arrangement, feedlots, pastures, gardens, orchards, and recreational areas kept in mind. By such planning you can add immeasurably to the value and comfort of your farmstead. Your county agent or the University of Minnesota Extension Service, St. Paul, Minnesota 55101, can provide further information in Bulletin 196.

* * * *

Ever examine the base of a tree after a heavy rainstorm? The amount of water that gets to the base of a tree is a problem being considered by University of Minnesota foresters. There are three components of rainfall--interception, throughfall and stemflow. Each is important for the forest manager to consider in his conversation practices. Only the throughfall and the stemflow enter the soil or travel to the streams. Rain intercepted by the forest leaves evaporates and is not available for use. Since rainfall interception is important, the foresters are attempting to find ways to decrease this loss. These studies are part of an overall watershed management program which have a special significance for the future of Minnesota.

* * * *

Value of wheat germ oil as a possible aid in livestock reproduction has been demonstrated in recent University of Minnesota research. In studies at the Grand Rapids Experiment Station, use of EDC-extracted wheat germ oil with female sheep resulted in a 14-percent increase both in conception and in number of twins born. Wheat germ oil has an effect similar to that of androgen, or male hormone.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
November 25, 1963

To all counties

ATT: HOME AGENTS

Third and last story in
series on carpets

GOOD CARE
LENGTHENS
RUG LIFE

Good care of your carpets and rugs will pay dividends in longer wear.

Daily and weekly cleaning, a thorough dry cleaning or shampooing every few years and prompt spot removal are keys to keeping rugs looking like new.

To avoid discoloration and the beaten down appearance of traffic paths, turn room-size rugs around at least twice a year. On wall-to-wall carpeting rearrange furniture to change the traffic lanes. These recommendations come from Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota.

Mrs. Zabel recommends removing surface soil daily with a vacuum cleaner or carpet sweeper. Vacuum thoroughly once or twice a week to remove imbedded soil. A thorough cleaning, according to the Carpet Institute, Inc., consists of seven individual strokes with the vacuum cleaner forward and back over a given area. A light cleaning adds up to three individual strokes with the cleaner.

Keep the amount of dirt your family and friends track in to a minimum by putting a mud-catching mat outside the door.

Every year or two your carpet should have a thorough cleaning -- if possible, by a commercial rug cleaning establishment. If you must do the cleaning yourself, absorbent powder cleaners are available which absorb some of the grime and dirt from the pile when brushed into the rug and then vacuumed. Another method is to shampoo rugs with special rug shampoos or suds of a synthetic detergent.

Removing spills and spots promptly is a must to prevent permanent staining. Deadly enemies of carpets include orange drink, shoe polish, furniture polish, wet crepe paper and ink -- all of which can cause permanent stains if allowed to dry. They should be kept out of the living room.

-more-

add 1 - good care of rugs

Mrs. Zabel recommends these methods of stain removal for three different types of spots:

- Nongreasy. Sponge with cool water. If the stain remains, use a solution of one teaspoonful of detergent with one teaspoonful of white vinegar in a quart of warm water.

- Greasy. Sponge with a dry-cleaning fluid, allow to dry and repeat if necessary. When using a dry-cleaning fluid, have the room well ventilated and avoid breathing the vapors.

- Combination stains. Treat first for the nongreasy materials, then for the greasy stains.

Use an upward motion with a sponge, brush or cloth when removing spots from rugs. Always work quickly on the pile surface, using a minimum of water or other liquid to avoid penetrating the backing.

-jbn-

SC
27P
Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 26, 1963

Immediate release

SHORT COURSE OFFERED ON SOILS AND FERTILIZERS

A day devoted to research information will mark the 13th annual Soils and Fertilizer Short Course Dec. 9 on the St. Paul Campus of the University of Minnesota.

The course is open to the public, says Curtis Overdahl, extension soils specialist and coordinator of the event which is offered through the University's Department of Agricultural Short Courses.

Sponsors of the course are the Department of Soil Science and Agricultural Extension Service and the Minnesota Plant Food Ass'n.

Topics to be covered during the annual meeting include: "Changing Functions of the Institute of Agriculture as they Relate to Business and Industry," "Barriers to Effective Communication in Highly Competitive Selling," "The Varied Effects of Fertilizer on the Corn Plant," "Controlling the Corn Root Worm in 1964," "What's New in Secondary and Micronutrients," "Soils Problems Related to Idle Acres," and "Soil Temperature as it Effects Corn Growth."

Presiding over the morning session will be Roland H. Abraham, associate director of the Agricultural Extension Service. F. M. Burson, professor of soils will moderate the afternoon gathering.

Speakers listed on the program are: H. A. Arneman, professor of soils; S. O. Berg, dean of the Institute of Agriculture; A. C. Caldwell, professor of soils; LaVern A. Freeh, director of agricultural short courses; Orville Gunderson, area soils agent at Montevideo; R. F. Holt, agricultural research service; W. P. Martin, head of Department of Soil Science; J. A. Lofgren, extension entomologist; J. M. MacGregor, professor of soils and Ralph G. Nichols, head of the Department of Rhetoric. Speakers from other colleges and industry will also address the conference

Registration for the course will begin at 8:30 a.m., Dec. 9, on the second floor of Coffey Hall. A registration fee of \$3 will be charged. Participants are urged to be punctual in attending the course sessions.

Persons wishing additional information should contact the Department of Agricultural Short Courses, University of Minnesota, St. Paul 1.

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63-334-wlb

Department of Information
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Institute of Agriculture
University of Minnesota
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Immediate release

MICRO-ORGANISMS UTILIZED IN FOOD AND INDUSTRY

What micro-organisms do in a cow's stomach may be applied to food an industry says a three-man research team at the University of Minnesota.

In their studies, they are using micro-organisms from the cow's stomach, soil, air and a variety of other sources to change the chemical structure of carbohydrate material.

The men involved are Samuel Kirkwood, biochemist; Fred Smith, organic chemist; and Joseph Scaletti, bacteriologist. Their work and the research being carried on at other universities and research centers is just beginning to scratch the surface of what can be done.

Scaletti is studying the range of micro-organisms involved in conversions. After conversions have taken place, Kirkwood and Smith attempt to define the chemical nature of these products.

They are looking for microbial processes that may be utilized in converting the tremendous tonnages of farm crops, particularly corn and potatoes to other useful products.

Their laboratory findings show that some microbial processes produce gums that could be eaten by man or animal. This gum-like quality also may be applied as a thickening agent in foods such as corn and potato starch. It holds the possibility of sticking ground tobacco together in a stringy formation.

The researchers found that paper treated with this gum like material has greater wet strength. This property adds durability to the paper bag and packaging paper.

The researchers doubt whether any one application of microbial by-products to food and industry will bring an increased demand for agricultural crops and a reduction in surpluses. However, they contend that 100 or more uses would make a significant difference.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 26, 1963

Immediate release

FLOWERING CRABS BECOMING POPULAR ORNAMENTAL

The flowering crabapple has become the most popular small ornamental tree for Minnesota home .

Few ornamentals combine as many desirable qualities in a single variety as flowering crabapples, according to Leon C. Snyder, head of the Department of Horticultural Science at the University of Minnesota. Among these qualities are hardiness, desirable form, attractive bloom, summer color, ornamental fruits, good fall color and winter interest.

To make as many flowering crabapple varieties as possible available for Minnesota planting, the University's Department of Horticultural Science has been actively engaged in a breeding program to improve this ornamental since 1940. At present more than 80 species and varieties are under test at the Landscape Arboretum and at the Fruit Breeding Farm. Three varieties have been developed and introduced by University horticulturists: Flame in 1934, Radiant in 1958 and Vanguard in 1963, all fully hardy.

Most varieties of flowering crabapples bloom in mid-May, just ahead of the lilacs. Bloom ranges from white to red and size of petals varies from 1 inch to nearly 3 inches in diameter.

Foliage color may be light to dark green, with a reddish cast characteristic of certain varieties such as Radiant, Vanguard, Irene and Crimson Brilliant.

Fruit varies from the size of a pea in the Zumi variety to almost 2 inches in diameter in the Prairie crabapple. Some varieties drop their fruits as soon as they are ripe; others hold their fruits throughout the winter. The latter types attract birds to the home yard.

Tree size ranges from the dwarf Sargents crab about 6 feet in height to very large trees that may grow 25 or more feet tall. Tree form may be narrow and upright as in the Columnar Siberian crabapple or wide-spreading like the Crimson Brilliant and Almey. There are also weeping forms such as the Red Jade.

Snyder discusses flowering crabapples for Minnesota in an article in the current issue of Minnesota Farm and Home Science, a publication of the University's Agricultural Experiment Station. ###

63-337-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
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November 26, 1963

Immediate release

MINN. STATE NURSERYMEN'S ASSOCIATION TO MEET DEC. 2

Members of the Minnesota State Nurserymen's Association will hold their annual convention in the Curtis Hotel Dec. 2 and 3.

The meeting will concentrate on information to help solve particular problems of nurserymen, according to C. G. Hard, extension horticulturist at the University of Minnesota.

New introductions, winter burn on arborvitae, equipment for the nursery and landscape business, weed control in the nursery and home ground design in Minnesota will be among topics to be discussed at the sessions.

Donald M. Coe, director of plant industry, and Walter Trampe, supervisor of nursery inspection, Minnesota Department of Agriculture, will report on activities of the Division of Plant Industry. Leon C. Snyder, head of the Department of Horticultural Science and director of the Landscape Arboretum, University of Minnesota, will bring the group up to date on developments at the Arboretum.

Luncheon speaker Monday will be Arthur H. Motley, president and publisher of Parade Publications, Inc., New York City, who will speak on "Politics and Private Business." Motley is former president of the Chamber of Commerce of the United States. Tuesday noon Bob Ryan, Twin Cities news commentator, will discuss "The Impact of the Soviet Challenge."

Other speakers for the event include Clark J. Pahlas, director, Olmsted County Historical Society, Rochester; Conrad Weiser, associate professor of horticultural science, University of Minnesota; Thomas Finney, Jr., Sturgeon Bay, Wis.; J. E. Korves, American Association of Nurserymen, Fremont, Neb.; and Herbert Baldwin, Minneapolis. Lawrence Bachman and James Weimelt, Minneapolis nurserymen, will moderate a panel discussion Monday afternoon.

Charles Hawkins, St. Paul nurseryman and president of the Minnesota State Nurserymen's Association, will preside at the meetings. ### 63-336-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 26, 1963

Immediate release

SHERBURNE COUNTY 4-H'ER WINS BROWN SWISS AWARD

A Princeton, Minn., youth with an early start on his own dairy herd is the 1963 winner of the 4-H Brown Swiss Award.

Robert Blake, 17, will receive a watch from the Minnesota Brown Swiss Breeders' Association. He will also be awarded a Swiss bell as champion of Cantons 5 and 6. The presentation will be made at the annual meeting of the Brown Swiss Breeders' Association Friday evening, Nov. 29, in New Ulm.

Other canton winners who will receive Swiss bells are: Helen Edwards, Winona, Canton 1; Steve Schoen, Wells, Canton 2; Larry Russell, Montevideo, Canton 3; Steve Tuman, Hutchinson, Canton 4; and Mary Rantanen, Middle River, Canton 7.

This is the sixth annual canton championship Robert has won. His animal was also grand champion of its 4-H class at the 1963 State Fair and grand champion at the Region IV Dairy Day where Brown Swiss championships have gone to Robert every year since 1958.

Robert took State Fair honors in 1962 with a champion dairy demonstration. Last year he won a trip to the National 4-H Club Congress at Chicago.

Now in his seventh year of Club work, Robert receives 50 percent ownership of offspring from the herd of 60 Brown Swiss that he and his father manage. He will have sole ownership of all offspring from these animals.

A freshman at the University of Minnesota, Robert is already qualified as a technician with the Curtiss Breeding Service, Inc., Cary, Ill. He was student body president and a member of the National Honor Society at Princeton High School.

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63-332-blk

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 27, 1963

Immediate release

RETAIL SEED, FERTILIZER AND CHEMICAL DEALERS MEETINGS SET

January will bring a special opportunity for Minnesota's farm products dealers to keep up on the developments in the field of agricultural chemicals and fertilizers.

The annual Seed, Fertilizer and Agricultural Chemical Meetings for dealers have been scheduled around the state for that month, under sponsorship of the University of Minnesota Agricultural Extension Service.

Specialists from agronomy, soils, entomology and plant pathology will be reporting on research in the field of crop production. They will be talking on results of weed control experiments, insect problems and insecticides, fertilizer trial results, the current plant disease situation and other topics pertaining to each area.

Meetings in the southern part of the state will be: Jan. 6 at Wade's Broiler in Rochester; Jan. 7 at the Inn Towne Motel in Owatonna; Jan. 8 at the Inn Towne Motel in Mankato; Jan. 9 at the Tropicana Club in New Ulm; Jan. 20 at Hotel Augusta in Fairmont; Jan. 21 at Ehler's Steak House in Worthington; and Jan. 22 at the Hunt Hotel in Montevideo.

Other meetings will be Jan. 13 at the Garden Supper Club in Hutchinson; Jan. 14 at the Arlington Hotel in Cambridge; Jan. 23 at the American Legion rooms in Alexandria; Jan. 27 at the Clay County Courthouse in Moorhead; Jan. 28 at the Legion Club in Thief River Falls and Jan. 29 at the Legion Hall in Park Rapids.

Persons wishing for more information, may contact their county agents or the soils specialists, University of Minnesota, St. Paul 55101.

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63-337-pjt

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 27, 1963

*For release at 4 p.m., *
*Friday, Nov. 29 *

NUTRITIONISTS STUDY EFFECT OF SILAGE PRESERVATIVE

CHICAGO--Adding a chemical preservative to silage had no adverse nutritional effects among either dairy or beef cattle in recent research reported at the Midwestern Section of the American Society of Animal Science, meeting here today.

Nutritionists J. C. Meiske, R. M. Prouty and J. V. Scaletti from the University of Minnesota made the report.

In other studies in recent years, bisulfite additons have resulted in somewhat higher levels of nitrate remaining in silage after fermentation. These higher levels of nitrate have been implicated in low content of carotene in silage and in vitamin A deficiency in cattle eating the silage.

Carotene is converted to vitamin A in the digestive system.

The bisulfite-treated silage in the Minnesota studies was somewhat also higher in nitrates than untreated silage. But apparently, the nitrate level was not at a critical level, since it did not seem to interfere in carotene conversion in cattle.

These findings were based on analyses of the silage itself and upon tests of blood samples from cattle.

One finding of some concern was that beef cattle fed bisulfite-treated silage showed significantly lower average daily gains--.27 pounds compared to .57 for those eating untreated silage. The reason for the difference is not completely understood.

Bisulfite is a preservative which has been found to inhibit the production of toxic, nitrogenous gases from materials containing high amounts of nitrate, such as corn grown on soil high in nitrogen fertility or under drouth conditions. The purpose of the research reported here was to determine the nutritional value of the silage containing the preservative.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 29, 1963

*For release at 2 p.m., *
*Saturday, Nov. 30 *

LONG-RUN CHANGES SEEN FOR DAIRY INDUSTRY

Trends in Minnesota's dairy industry and their implications for research and continuing education programs of the University of Minnesota's Institute of Agriculture were outlined today by Sherwood O. Berg, dean of the Institute.

Berg spoke at the annual meeting of the Twin City Milk Producers Association at the St. Paul Auditorium.

He noted a continuing reduction in dairy herds and cows, increased production per cow and dairy farm, a shift to larger processing units and a greater demand for quality dairy products.

Minnesota, since 1955, has seen nearly a 200 percent increase in number of herds with 30 cows or more, according to Berg and nearly a six-fold increase in number of bulk milk tanks on farms.

Meanwhile, numbers of herds of fewer than 10 cows has declined by more than half and those with 10-19 have decreased by about a third.

With larger dairy herds and more use of bulk handling, the supply areas for dairy plants have widened, decreasing the need for assembly plants. Plants processing over a million pounds of butterfat annually number nearly a third of the total plants in the state.

Berg noted a U. S. milk production level of under 125.3 billion pounds in 1963, or slightly under the 1962 mark. The decline is accounted for by a continued decline in cow numbers which, unlike recent years, is not fully compensated for by gain in production per cow.

For the future, Berg said that as the number of dairy herds declines, the number of processing units will also continue to decrease. There will be a greater demand for quality dairy products and more concentration on cow quality on farms staying in production.

(more)

add 1 -- Berg's address

The dairy industry is faced with a slight decrease in per capita consumption of manufactured dairy products, Berg said, but this will be offset by the increase in population. Total demand for fluid milk, however, is declining slightly, as a result of a heavy per capita decline in consumption. The percentage of milk drinkers in the population is dropping, Berg said.

The University, Berg said, has a continuing program of research oriented toward the dairy industry--research ranging from "the feed before it goes into the cow to the public reaction to dairy products."

"Our research," he continued, "recognizes that the future is based on maintaining the lower cost of production now existing in the Minnesota-Wisconsin milk shed.

He described dairy-related research in crops and soils, dairy breeding and genetics, reproduction, dairy herd improvement, bulk milk handling and development of better milk products.

As an example, Berg pointed to the bulk milk studies and investigations of off-flavors in milk from storage and pipe lines and the importance of bacteria in milk flavor.

Another example is research on use of dairy steers. "Is it possible", he asked, "to breed a high solids, low-fat dairy cow--and yet have the dairy steers be suitable for production of meat protein?"

Berg concluded by noting the continuing education available to dairy producers through the Institute of Agriculture and its Agricultural Extension Service.

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63-339-pjt

Department of Information
and Agricultural Journalism
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November 29, 1963

*For release *
*Tues. a.m., Dec. 3 *

JANESVILLE 4-H'ER RECEIVES NATIONAL SCHOLARSHIP

CHICAGO--Four years of recreational leadership have brought \$500 to a Minnesota 4-H'er.

The sum comes as a college scholarship for James Spangler, 18, Janesville. The award was announced at the 1963 4-H Club Congress, held here Dec. 1-5.

Spangler is one of six youths in the nation to receive scholarships, given by the John Deere Company, Moline, Ill., for outstanding work in the 4-H recreation program.

An active junior leader and past president of his local club, Spangler has been a delegate to both the State Junior Leadership Conference and the District Leaders' Institute on Recreation. In 1963, his club was selected one of Minnesota's 10 outstanding 4-H clubs in the area of recreation.

The national winner has been song leader for the Waseca County fair, achievement banquet, share-the-fun-contest and other community events. "Too many people have forgotten the simple art of singing," says Spangler. "I think it is important for young as well as old to sing together."

Last summer he planned and led recreational activities for an exchange program between Minnesota and Maryland 4-H'ers.

Spangler is presently farming with his parents on their 250-acre farm. He plans to attend college.

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63-340-blk

Department of Information
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University of Minnesota
St. Paul 55101 -- Tel. 647-3205
November 29, 1963

*For release at 11 a.m., *
*Saturday, Nov. 30 *

MINNESOTA RESEARCHER REPORTS MINATURE PIG PROJECT

CHICAGO--How a breed of miniature pigs is being developed for research purposes was reported today at the meeting of the Midwestern Section of the American Society of Animal Science by a University of Minnesota geneticist.

W. E. Rempel said the University has pigs that average little more than 40 pounds at 140 days of age. An ordinary pig that old would be about ready for market, weighing about 200 pounds.

To a Minnesota farmer, 40 pounds is usually considered weaning weight for a hog.

Rempel said the purpose of developing the small pig is to provide an experimental animal for medical research. Since pigs are similar to humans in metabolism, circulation, and many other characteristics, they are useful in a variety of studies related to health problems.

Miniature pigs from the Minnesota project have been in use for several years in laboratories around the country. The U. S. Department of Agriculture has a breeding herd of these pigs at Beltsville, Md.

Rempel reported that through the breeding project, these pigs have been reduced in size at 140 days of age by 37.7 percent since 1950-52. The change can be accounted for by the amount of selection and heritability of the size trait, according to Rempel.

While the pigs are getting smaller, their average litters have remained about the same in number of pigs born.

The miniature pig project began in 1949 at the University's Hormel Institute. The original foundation stock included wild pigs from Southern states, from Catalina Island and from the island of Guam.

Department of Information
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Institute of Agriculture
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St. Paul 55101 -- Tel. 647-3205
November 29, 1963

*For release at noon, *
*Saturday, Nov. 30 *

UM RESEARCH SHOWS WHEAT GERM OIL TO BE REPRODUCTIVE AID

CHICAGO--Findings supporting the value of wheat germ oil as a possible aid in livestock reproduction were reported this weekend to the Midwest Section of the American Animal Science Society.

W. Richard Dukelow, animal husbandman at the University of Minnesota's North Central Experiment Station, Grand Rapids, said that use of EDC - extracted wheat germ oil with female sheep resulted in a 14 percent increase, both in conception and in number of twins born.

Wheat germ oil has an effect similar to that of androgen, or male hormone. It has been known as a reproductive aid for many years, but specific data on its effects with domestic animals are rather slim.

Dukelow said he administered the wheat germ oil weekly as a drench to ewes, starting three weeks before the breeding season and continuing until the season's end. He left 48 ewes as non-treated controls.

After a 35-day breeding season, the percent of ewes pregnant was about 94 for those getting the wheat germ oil, compared to 79 for the controls. The number of lambs per 100 ewes was 149 and 134, respectively, for the treated and non-treated ewes.

The wheat germ oil seemed to have about the same effect on conception and twinning rate for yearling ewes as for ewes which had previously lambed. It had no apparent effect on birth weight or finished weight of the lambs.

"EDC" refers to ethylene dichloride--the solvent used to extract the wheat germ oil from wheat.

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Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
December 2, 1963

*For release Dec. 3 *

MINGREN SUNFLOWER DEVELOPED AT THE UNIVERSITY OF MINNESOTA

A new sunflower variety, Mingren, has been developed by the University of Minnesota Agricultural Experiment Station.

About 230 pounds of seed were released last spring for increase by growers and the University, according to Carl Borgeson, University agronomist in charge of seed stocks.

Further distribution will be made through county committees in 1964.

The new variety was developed and tested by R. G. Robinson, University agronomist. It was formerly known as Minnesota No. 2, and is a large-seeded variety selected from the Mennonite sunflower variety.

Mingren in tests has been superior to Mennonite in seed weight and percentage of large seeds which bring a higher price from some buyers.

Mingren tends to yield more than Mennonite and less than Arrowhead, a recommended variety. It has averaged four to five days later in flowering and is one to six inches taller than Arrowhead.

Mennonite sunflowers have been raised on a considerable acreage in the state, and Mingren is expected to be a certifiable variety to replace some of the Mennonite acreage.

Sunflowers are among several oilseed crops which seem to be gaining popularity in Minnesota. Oils from such crops tend to find two main uses--as drying oils in paints, linoleum and coatings and as edible oils such as margarine and salad oil.

Sunflowers in the past have been grown largely for birdfeed and confections, but have good potential for the oilseed market. Estimates are that about 27,000 acres of the crop were grown in Minnesota during the past summer.

With good farming practices, Minnesota growers should be able to harvest 1,000 pounds of sunflower seed per acre and it appears that they will average that in 1963. In 1963, several growers produced more than a ton to the acre.

Department of Information
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December 2, 1963

*For release *
*Wed. a.m., Dec. 4 *

\$400 AG SCHOLARSHIPS TO U OF M STUDENTS

Scholarships worth \$400 each will be presented Jan. 10 to John Allerson, 20, St. Peter, and Marvin Meier, 27, Ogema, Wis., at a special awards luncheon on the St. Paul Campus of the University of Minnesota.

The awards were announced today (Wed. a.m., Dec. 4) by Leonard Harkness, state 4-H Club leader at the University of Minnesota.

The two University of Minnesota students are among 11 young men in the nation to receive scholarships from the Chicago and North Western Railway Company, Chicago. All recipients must be or have been enrolled in 4-H Club work.

Allerson's award recognizes his achievement and strong interest in the field of agricultural economics during his two past years of college. He ranked first scholastically in his Nicollet High School graduating class and has maintained an A minus average at the University.

Allerson was a 4-H'er for five years and vice president of his Nicollet County 4-H club. He is a member of Alpha Gamma Rho, professional agricultural fraternity at the University.

Meier's scholarship was awarded for his work in the forest research management curriculum. He is a senior with a B average. A 4-H Club member for 10 years, Meier was president of his local club and won county honors in the forestry project. He spent the past summer as a foresters' aid.

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63-347-blk

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
December 2, 1963

*For release *
*Wed, a.m., Dec. 4 *

MINNESOTA 4-H'ERS WIN NATIONAL SCHOLARSHIPS

CHICAGO--Two southeastern Minnesota 4-H youths are winners of college scholarships awarded this morning (Dec. 4) at the 1963 4-H Club Congress here.

They are Terry Lorch, 17, Rochester, and Lance Sorensen, 16, Welch.

Terry is one of six 4-H'ers in the nation to receive a scholarship from the Moorman Manufacturing Company, Quincy, Ill. This \$500 award caps his work in the swine project, initiated nine years ago with the purchase of a sow for \$45. The sow produced eight litters for Lorch, now a proud owner of a purebred Duroc herd.

The Olmsted County youth has been president of his 4-H club since 1961. Last year he won a trip to the National Dairy Cattle Congress in Waterloo, Iowa, and was reserve champion swine showman at the 1963 Minnesota State Fair. Lorch also won trips to the National Barrow Show, Austin, for three consecutive years.

Terry uses part of his swine income to make payments on the family farm, purchased in 1962. "Along with having a good animal," says Terry, "go a lot of responsibility, good management and common sense."

Lance's \$400 scholarship for achievement in the 4-H forestry project was awarded by the American Forest Products Industries, Inc., Washington, D.C. He is one of six national winners.

4-H has been a lifelong experience for Lance. He was born during his parents' 20th year as 4-H adult leaders. At the age of three he participated in a 4-H talent show.

During seven years of active membership Lance received five county and state blue ribbons for forestry demonstrations and exhibits. He was Goodhue County's top forestry member for two years and in 1963 was a delegate to the state conservation camp at Itasca State Park.

A backlog of experience with water conservation and soil erosion problems has led Lance - now a junior in Red Wing Central High School - to plan a career in the forestry service. He has planted over 3,000 seedlings, all by hand--a total of 33 varieties.

"4-H has taught me the joy of working with others" says Lance, who leads younger members in their forestry projects and is presently treasurer of his local club.

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63-346-blk

FREEZE AHEAD FOR THE HOLIDAYS

Freeze ahead for the holidays if you want to avoid the frenzied eleventh-hour preparations that leave you too exhausted to enjoy the festivities.

That's the advice of Mrs. Shirley T. Munson, in charge of the University of Minnesota's food processing laboratory.

The type of entertaining you do will determine what you want to freeze. Here are some suggestions from Mrs. Munson on holiday foods that will freeze well:

- . Almost all types of cookies and bars. Store them in coffee or other tin cans so they won't break, using sheets of a saran-type film or aluminum foil between the layers and on top to prevent moisture loss. Without the foil or saran-type film on top of the cookies and between the layers, the cookies may dry out as you take a few out of the can at various times.

- . Fruit and other cakes. Most cakes and cupcakes freeze satisfactorily. Packaged well in polyethylene bags, aluminum foil or a saran-type film and freezer tape, fruit cakes will keep at least a year, baked cakes 2 to 3 months. Thaw in their original wrappers. For best results, do not frost or fill cakes unfrosted before freezing.

- . Fancy breads such as the nationality breads that have become traditional in your family. Bread will be less crumbly if it is baked at 400° F. for a shorter time than called for when baking at 375° or 350°. Store bread in polyethylene bags and freeze as soon as it is cool. Thaw in the original wrapper at room temperature. Frozen rolls may be heated in the oven at 250°-300° F. or in a bun warmer on top of the range. Frosting on breads tends to dry out.

- . Pumpkin, mince, chiffon and apple pies freeze well. It is preferable to bake them before freezing; then, when ready to use, let the pie stand in the original wrapper at room temperature for a short time. Put it in a 350° oven on the lower shelf before it begins to thaw and heat until just warm--about 30 minutes. Do not reheat chiffon pies.

- . Homemade candies. Store in tin cans.

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Institute of Agriculture
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December 2, 1963

Immediate release

NEW DIMENSIONS IN AGRICULTURE TO BE GIVEN AT ANNUAL CONFERENCE

About 350 state and county staff members of the University of Minnesota Agricultural Extension Service will attend their annual conference at the St. Paul Campus Dec. 10-12.

"New Dimensions for the Institute of Agriculture" will be the keynote address given by Sherwood O. Berg, dean of the Institute at 9:10 a.m., Dec. 10.

The Agricultural Extension Service is one of the three main units of the Institute of Agriculture. The others are the Agricultural Experiment Station and the College of Agriculture, Forestry and Home Economics.

The purpose of the conference according to Hal Routhe, state leader of Extension programs at the University of Minnesota, is to point up the extension's programs in continuing education.

The conference has four major objectives in mind:

- 1) To enlarge the vision and broaden the perspective of the Agricultural Extension Service staff.
- 2) To clarify concepts, philosophy, institutional framework and focus for future educational efforts.
- 3) To provide for discussion of ideas, methods and problems in conducting educational programs.
- 4) To provide an opportunity to strengthen morale and stimulate enthusiasm.

A key speech on Dec. 12 will be "Charting Extension's Future" by Herbert A. Albrecht, president of North Dakota State University.

Other talks to be given include, "A New Dimension for the University International Programs," by Will Myers, dean, International Programs; and "Current Issues in Foreign Trade and Implications for Minnesota Agriculture and the Agricultural Extension Service" by Elmer Learn, head of the Department of Agricultural Economics.

Apart from the conference location, three separate agents meetings will be held on the afternoon of Dec. 10 in Minneapolis at the Curtis Hotel. At 12:30 p.m. the Minnesota home agents will convene. The Minnesota Ass'n. of County Club Agents will meet at 1 p.m., and the Agricultural Agents Ass'n. will gather at 1:30 p.m.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
December 2, 1963

To all counties
Immediate release
Fourth in a series on
Forestry Resources

FORESTRY FUTURE:
LUMBER--OR FIBER?

It's a common question faced by county Rural Area Development committees:

How promising are future lumber markets for that timber around the county?

The most general answer seems to be that forestry's future growth in Minnesota will be mainly in wood fiber--rather than lumber.

Lumber production will continue, but without much expansion in this state, say extension foresters Bill Miles and Marvin Smith at the University of Minnesota. The big use of timber is pulp manufacturing and that is where the main future lies.

The trend in lumber is also related to the displacement of lumber by a variety of other materials for construction; mainly panel products such as plywood and building board.

Back in the days of Paul Bunyan folklore, near the turn of the century, some 2.3 billion board feet of lumber came from Minnesota in one year. In 1960, Minnesota's lumber production was 161 million, accounting for half of one percent of the U. S. total. In 1899, it was 7 percent of national lumber production.

Furthermore, total U. S. lumber production is hardly holding a stable level--in spite of rapid population growth and accompanying building activity. National production was 35 billion board feet in 1899 and 33 billion feet in 1960. But in those six decades came a geographical shift in lumbering, with Lake States markets being lost to the West, the South and Canada.

It's a big change from the vast lumber industry launched in 1837 when the first whine of a big saw tearing into a pine log came from Minnesota's first commercial saw mill at Marine-on-the-St. Croix.

Minnesota, since early in this century, has seen a shrinking volume of timber big enough for sawlogs. The South and West has vast stands of mature, large timber, and rapidly growing timber of sawlog quality

add 1 - forestry future

Then came competition from lumber substitutes--plywood, pressed wood, metals.

There is still room for enterprising small and medium-sized sawmills in Minnesota, but Smith and Miles doubt whether we'll have any more of the large sawmills of the lumbering heyday.

The encouraging aspect is that any tree usable as a sawlog can also be used for fiber, in such products as paper, packaging, insulation board and other uses. Yet, many other trees that would never make the grade as lumber can be used for fiber-based products.

One area of interest is the veneer market, meaning plywood for construction and furniture veneer. This is a relatively new industry, having started growth in about 1920.

Smith and Miles expect continued national growth of the veneer industry. But they point out that some drastic changes in technology and standards of utilization are needed before this can become an important industry in Minnesota.

Veneer requires fairly good sized logs, wood with good grain or figure characteristics, and wood which can be peeled without checking, splitting, or gumming up knives or machines.

Minnesota has two plywood operations now, and a number of secondary manufacturing plants use veneer as a constituent in their production.

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Nextweek: Outlook for other forestry products.

Department of Information
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St. Paul, Minnesota 55101
December 2, 1963

To all counties
Immediate release

EXTRA AMINO ACIDS
SHOW LITTLE HELP
IN HOG PERFORMANCE

Adding the amino acids lysine and methionine to swine rations seems to be of doubtful value in terms of daily gain and carcass quality of hogs.

A team of Minnesota livestock research men report several studies on use of these amino acids.

Daily rate of gain was unaffected by adding the amino acids, both for growing swine fed corn-soybean meal diets, and for those receiving pelleted barley rations. Also, there was no effect from supplementation on gain of early weaned pigs.

For example, in one of the studies reported, growing hogs were fed corn-soybean meal diets containing 12, 14 or 16 percent protein. The 12 percent diets were supplemented either with lysine alone, or with a combination of lysine and methionine, at a rate which made the levels of these amino acids the same as those in the 16 percent protein diets.

Similarly, the 14 percent diet was supplemented to make the levels of these amino acids equivalent to those in rations containing 16 percent protein.

Hogs were started in one of these trials when they averaged 55 pounds and were slaughtered at 200 pounds. The higher levels of dietary protein and the amino acid supplementation had no effect on either rate or efficiency of gain.

Similarly, protein levels and supplementary protein had no effects on backfat thickness, percentage of trimmed ham and loin and other carcass characteristics.

In studies with early weaned pigs, the researchers compared a corn-soybean meal basal diet, containing 16.5 percent protein, with the same ration supplemented with .1 percent methionine, .1 or .2 percent lysine, or both. Again, there was no effect on rate of gain. However, .2 percent lysine alone did improve feed conversion ratio--a measure of feed efficiency.

The research men involved in these studies included W. R. Dukelow, R. S. Grant, R. J. Meade, J. H. Goihl, H. von der Mehden, E. Smolinsky, L. E. Hanson, J. T. Typpo, D. Reimer, J. Nordstrom, and H. E. Hanke.
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Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
December 2, 1963

To all counties

4-H NEWS

Immediate release

4-H HAS CONCERN
FOR COMMUNITY

From saving lives to singing carols to shut-ins, 4-H club members use their knowledge and skills to make their community a better place in which to live.

Many clubs concentrate on a project such as health or safety, as a group. Members' demonstrations and talks by guest speakers teach them the principles they later put into use in community service.

One club was inspired by a public health nurse to determine the percentage of their community protected by polio vaccine and to explain to others why they should be immunized. Some clubs assist with polio clinics and drives such as March of Dimes, Red Cross, United Fund and Sister Kenny. Many 4-H'ers make first-aid kits for home, car, tractor and even for purses.

Artificial respiration is an important skill members learn. A Redwood County 4-H'er actually put her knowledge to work and saved another girl's life. Washington County 4-H'ers serve as lifeguards at beaches during the summer.

The same group reflectorized almost 100 bikes in their community and distributed information promoting automobile seat belts. During the state "Lights for Safety" campaign, Todd County youths stood by the highway with signs telling motorists to turn on lights and drive safely. Club members in the shop project made safety flares and "yield" signs for driveways.

In North St. Louis County, 4-H'ers wrote letters to the local newspaper and went en masse to a town board meeting where they appealed for a barricade at a dangerous dead-end road, the scene of several serious accidents. They were successful and the barricade was built.

Built by 4-H'ers for a more pleasant purpose were roadside parks in Goodhue and Mille Lacs counties which the young people maintain for public use.

add 1 - 4-H concern for community

Persons in community hospitals and institutions receive special attention from 4-H members, especially at Christmas when 4-H'ers carol and take them baskets of food and gifts. One club "adopted" a shut-in to cheer during the year and entertain on holidays. They also invite invalids to their homes for dinners. Another group supplies a local clinic with toys and participates in a recreation program for mentally retarded children.

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Note to Agents: You may wish to insert community service activities of your 4-H'ers after the second paragraph or rewrite, featuring local activities.

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
December 2, 1963

To all counties
ATT: HOME AGENTS
Immediate release

GLOVES:
WHEN TO WEAR,
HOW TO CARE FOR

To wear or not to wear, that is the question.

Gloves are the mark of a well groomed lady and, like all social graces, glove wearing has its own etiquette. Tradition and common sense combine to give us basic "Do's" and "Don'ts" for when and when not to wear them, say extension clothing specialists at the University of Minnesota. They pass on these suggestions:

Do wear gloves while you're shopping or driving. Wear gloves to show respect in a place of worship and keep them on throughout the service.

Do "go gloved" to all luncheons and dinner parties. If the event is informal, leave your gloves with your coat when you arrive. Keep them on for formal occasions--while dancing or going through a reception line. But do remove them as soon as you sit down at a table.

Don't eat with gloves on. Wearing them while applying make-up or playing cards is not only improper, but soils them quickly. Avoid wearing jewelry over gloves, with the possible exception of bracelets.

Don't carry your gloves. They are as essential to your costume as a skirt zipper and should always be carefully co-ordinated.

Care of gloves is important, too. Tugging to get a glove off or on will split seams. Work it first over your fingers, then over the thumb. To remove a leather glove, turn the wrong side half-way back over the hand and slide it off.

A glove should always be smoothed flat when not worn. This practice applies to gloves in your lap as well as those in drawers. Storing them in the plastic bags they came in reduces wear and washing.

Never store soiled gloves. Different cleaning methods are advised for the many fabrics of which they're made. Check directions for cleaning before you buy.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
December 2, 1963

To all counties
Immediate release

HOG INDUSTRY
IS SPECIALIZING

Specialization in agriculture seems to be the modern trend and Minnesota's third ranking livestock industry, swine production, is no exception.

A recent study by agricultural economists at the University of Minnesota suggests five types of hog production operations in the state.

1) Complete slaughter hog producer who farrow all feeding stock, and market them as slaughter barrows and gilts. This is the most important type in Minnesota.

This group represented 63 percent of all hog producers, in the study, and sold 68 percent of all slaughter hogs. These producers sold an average of 96 barrows and gilts in 1961.

2) Partially specialized slaughter hog producers. They buy the majority of the pigs they finish to slaughter weight. So the farrowing function is relatively unimportant to them. In total marketings they account for 15 percent, whereas they make up only 10 percent of the producers.

They marketed an average of 133 barrows and gilts. This represents the highest average for any of the types marketing barrows and gilts.

3) Specialized slaughter hog producers who buy feeder pigs and market them as slaughter barrows and gilts, but farrows none. These hog raisers marketed only 9 percent of the barrows and gilts with a relatively low average of 90 pigs per producer.

4) Specialized feeder pig producers. They market over 50 percent of the feeder pigs produced in Minnesota. Slightly less than 8 percent of the hog producers in Minnesota are in this group. Average sales per producer of this group is 86 feeder pigs.

5) Diversified hog producers who farrow pigs and market some as feeder pigs but the remainder as slaughter barrows and gilts. These producers represent about 10 percent of the hog producers. They marketed approximately 8 percent of the barrows and gilts and one-half of the feeder pigs. Their 1961 sales averaged 71 head of barrows and gilts and 56 head of feeder pigs.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
December 3, 1963

*For release *
*Thurs. a.m., Dec. 5 *

MINNESOTA GIRL WINS SCHOLARSHIP AT 4-H CONGRESS

CHICAGO--A Winona State College freshman, Barbara Horihan, 18, Hokah, is regional winner of an \$800 college scholarship from Successful Farming magazine.

This was the sixth national college scholarship awarded to Minnesota 4-H'ers in 1963. Their total value comes to \$3,000.

The award was announced today (Dec. 4, p.m.) at the National 4-H Club Congress here. It is one of two such scholarships awarded through the Edwin T. Meredith Foundation, also a donor of National Merit Scholarships.

Miss Horihan's selection was based on her achievements in the 4-H home economics projects during her 10-year membership. She has been president of her local Houston County 4-H Club and also received the 4-H Key Award for outstanding service and leadership.

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63-349-blk

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
December 3, 1963

*For release at 3:30 p.m., *
*Thurs., Dec. 5 *

PLANT INVENTORY NEEDED FOR NEXT CENTURY

ST. LOUIS, MO.--Rapid urbanization of the American population, building of freeways and emphasis on recreational areas are all creating needs for types of plant materials that do not exist, a University of Minnesota horticulturist said today (Dec. 5, p.m.).

Speaking on "A Plant Inventory for the 21st Century," L. C. Snyder, head of the Department of Horticultural Science at the University of Minnesota, cited these needs: low compact shrubs for the modern home, groundcovers for difficult slopes, narrow upright trees for narrow boulevards and screens, low globe-headed trees for use under wires and smaller ornamental trees for lawn and patio. Snyder spoke at a meeting of the International Plant Propagators' Society here.

"To develop such an inventory of plant materials will require the best efforts of everyone concerned," Snyder said. "Nurserymen will need to keep an ever watchful eye for superior variations that occur in nature and in cultivated plantings. Plant breeders and geneticists at our research institutions will need the support of their administrations, and funds at the local, state and federal level will need to be increased for this purpose."

Snyder pointed to a number of encouraging signs that research efforts are being directed to the task of developing an inventory of new plant materials to meet future needs. Arboretums and botanical gardens are adding geneticists and plant breeders to their staffs. More agricultural experiment stations are recognizing ornamental plant breeding as a significant area for research. The new Crops Research Branch of the U. S. Department of Agriculture has also recognized the importance of new ornamentals.

Gardeners, too, are becoming more plant conscious and better informed through garden magazines, visits to arboretums, botanical gardens and commercial nurseries. But the challenge of better ornamentals for the future can be met, Snyder said, only if all those engaged in educating the garden public work together.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
December 3, 1963

Immediate release

MINNESOTA 4-H'ERS TO ATTEND DAIRY CONGRESS IN CHICAGO

Eight young people from Minnesota who have outstanding records in the 4-H dairy project have won trips to the 1963 National 4-H Dairy Conference in Chicago Dec. 5-7.

The delegates, selected for leadership and accomplishments in 4-H dairy projects, are Floyd Marti, Sleepy Eye; Warren Sylling, Caledonia; Larry Henning, Brewster; Robert Blasey, Ada; Roger Kurth, Stewart; Jean Fiedler, Sauk Centre; David Pierson, Lake Elmo; Allan Vergin, Buffalo. Earl Bergerud, assistant state 4-H club leader at the University of Minnesota, will accompany the group. They will be among 180 young dairymen and adult leaders from 23 states expected to attend the meeting.

Focus of the conference will be on careers and marketing in the dairy industry. Cooperating in arranging and conducting the conference are the Cooperative Extension Service, the National 4-H Service Committee, the International Dairy Show and other groups interested in youth and the dairy industry.

The conference is held during the International Dairy Show to give the young people opportunity to see cattle of high quality and visit with outstanding breeders of dairy animals.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
December 3, 1963

Immediate release

MINN. AND WIS. FRUIT GROWERS TO MEET

Commercial fruit growers in Minnesota and western Wisconsin will hold their 17th annual meeting at the Holiday Inn Motel, La Crosse, Wis., Dec. 9-10, J. D. Winter, secretary of the Minnesota Fruit Growers' Association, has announced.

Sponsors of the meeting are the Wisconsin State Horticultural Society and the Minnesota Fruit Growers' Association in cooperation with the University of Wisconsin and the University of Minnesota.

Featured speakers will include H. B. Tukey, former head of the horticulture department at Michigan State University, and Dwight Powell, professor of plant pathology at the University of Illinois. O. B. Combs, chairman of the Department of Horticulture, University of Wisconsin, will welcome the group. D. H. Williams, assistant director of the University of Wisconsin's Agricultural Extension Service, will speak at the annual banquet Monday evening (Dec. 9) on "Agriculture in South America."

Other speakers include University of Wisconsin staff members F. A. Gilbert, G. C. Kingbeil, J. L. Libby and E. K. Wade; A. C. Hodson, head of the Department of Entomology, Fisheries and Wildlife, University of Minnesota; D. W. Wilkinson, Don Konsoer, Marlon Schwier, Wisconsin Department of Agriculture; and Theodore Thomson, Minnesota Department of Agriculture.

Chemical weed and pest control in orchards, fire blight, packaging, labeling and weight regulations, production and marketing will be topics discussed at the two-day meeting.

The meeting is open to all commercial fruit growers.

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63-348-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
December 5, 1963

Immediate release

TWO SHORT COURSES OFFERED VO-AG INSTRUCTORS

A Materials Handling-Farm Structures Short Course and the FFA Award and Application Forms Workshop are scheduled for late December, according to LaVern A. Freeh, head of the Department of Agricultural Short Courses at the University of Minnesota.

The Short Course will be Dec. 27, 1963, from 8:30 a.m. to 3:30 p.m. It is sponsored by the Department of Agricultural Engineering and the Agricultural Extension Service.

The Short Course represents an attempt to provide vo-ag instructors with some of the latest information about materials handling and farm structures.

Featured speakers will be Keith McFarland, director of resident instruction for the Institute of Agriculture; Jesse Pomroy, assistant professor of agricultural engineering; Marvin Nabben, agricultural engineer for Northern States Power Co.; Harold Winterfeld, assistant professor of agricultural engineering at South Dakota State College; Dennis Ryan and Donald W. Bates, both extension agricultural engineers at the University of Minnesota.

The FFA Award and Application Forms Workshop is a new venture in short course education sponsored in conjunction with the State FFA office. It will be held Dec. 26, 1963, from 6:30 p.m. to 9:30 p.m. in the Ballroom of the Student Center, St. Paul Campus.

Donald Erickson, vo-ag instructor at Rugby, N.D., and a national figure in vo-ag education will conduct the FFA Workshop. Erickson's high school vo-ag department and FFA chapter have established an outstanding record in national competition for the past 20 years.

There will be a \$2 registration fee for the Workshop and a \$3 charge for the Short Course. These fees will cover the costs of out-of-state resource persons and a packet of instructional materials.

Persons wishing for more information may contact the Department of Agricultural Short Courses, University of Minnesota, St. Paul 55101.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
December 5, 1963

Immediate release

VARIETY OF FOODS ABUNDANT THIS MONTH

Some of the less tender cuts of meat being featured this week at many markets offer homemakers a chance to cut down on food budgets and add variety to meals.

Spare ribs, pork steaks and hocks, picnic hams and picnic-style pork roasts, beef chuck roasts and beef stew meat are among the meats with attractive price tags this week, reports Mary Ryan, extension consumer marketing specialist at the University of Minnesota. Any of these cuts can be tender, flavorful and juicy when cooked properly, she says.

Other good meat buys during December will be various cuts of beef and pork and turkey in a variety of sizes. Beef, pork and turkey are on the U. S. Department of Agriculture's list of plentiful foods for the month.

Supplies of locally grown carrots, cabbage and spinach and Red River Valley potatoes are plentiful this week and selling at seasonally low prices.

Shipped-in fruits that are good values currently are Florida grapefruit, especially the small sizes, California emperor grapes, tangerines and bananas. Throughout December cranberries from a bumper crop and apples will be the most abundant fruits and good buys.

Look for reduced prices on some canned goods this week, Miss Ryan suggests, including peaches, apricots, fruit cocktail, corn, peas, tomatoes, frozen orange juice, tuna and coffee in 2-pound cans.

Pecans from an all-time record crop and peanuts are particularly plentiful this month for holiday baking and candy making.

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63-353-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
December 5, 1963

Immediate release

UM EXPERIMENT STATION CHANGES VARIETY RECOMMENDATIONS

As a result of a new race of flax rust spreading southward from Canada, two flax varieties were dropped this week from the list recommended by the University of Minnesota Agricultural Experiment Station.

The varieties are Army and Marine 62, both susceptible to the new race 300 of flax rust which was first identified in Canada during the past year. Other recommended flax varieties are immune to race 300.

The main reason for dropping Army and Marine 62 is to reduce the possibility of giving the rust organisms a chance to grow and breed new races of rust.

The change was made at the Experiment Station's annual varietal recommendations conference held on the St. Paul Campus in cooperation with the Department of Agronomy and Plant Genetics, the Department of Plant Pathology and Physiology, the Agricultural Extension Service and the Minnesota Crop Improvement Association.

Added to the recommended list were Dodge oats and Mingren sunflowers.

Dodge oats is recommended as a good yielder, with good straw strength and less susceptibility to crown rust than any other recommended variety except Portage.

Mingren sunflowers are recommended only where a higher price is paid for large seed. It yields slightly more than Mennonite and has larger seed.

(more)

add 1 -- varietal recommendations

The complete list of farm crop varietal recommendations is as follows:

Barley: Kindred, Larker, Parkland, Traill, Trophy.

Oats: Ajax, Andrew, Burnett, ^{Dodge,} Garry, Goodfield, Minhafer, Portage, Rodney.

Winter Rye: Adams, Caribou, Elk.

Spring Wheat (bread): Justin, Pembina, Selkirk.

Spring Wheat (durum): Lakota, Langdon, Wells.

Winter Wheat: Minter.

Millet: Turghai, Empire, White Wonder.

Flax: Bolley, B-5128, Redwood, Windom.

Soybeans: Acme, Chippewa, Comet, Flambeau, Grant, Harosoy, Lindarin.

Sunflowers: Arrowhead, Mingren.

Peas: Chancellor, Stral.^o

Navy Beans: Michelite, Sanilac.

Alfalfa: Ranger, Vernal.

Birdsfoot Trefoil: Empire.

Red Clover: Dollard, Lakeland.

Sweetclover: Evergreen, Goldtop, Madrid.

Bromegrass: Achenbach, Fischer, Lincoln.

Kentucky Bluegrass: Park.

Sundangrass: Piper.

Timothy: Climax, Itasca, Lorain.

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63-352-pjt

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
December 6, 1963

*For release at 2 p.m., *
*Monday, Dec. 9 *

SOIL PROBLEMS RELATED TO IDLE ACRES

Land which has been left idle and summer fallowed for a year often produces a poor crop when planted in corn the following year.

That report was made by Orville Gunderson, Chippewa County area soils agent, at today's session of the Soils and Fertilizer Short Course on the St. Paul Campus of the University of Minnesota.

Gunderson said the adverse effects of a corn crop planted on previously idle and summer fallowed land seem to be most acute during early plant growth.

He said reports of this problem have come most frequently from western Minnesota. But it has also come up in LeSueur, Goodhue and Dakota counties.

Gunderson said that where the land was summer fallowed the previous year, the corn showed (1) stunted growth, (2) reduced plant stand, (3) delayed maturity, and (4) spindly stalks, often with purple colored leaves.

On many a farm, corn on another part of the same field which had been cropped the previous year would appear normal. In some fields the difference in the height of the two plots of corn was 18 to 24 inches during the early part of the growing season.

Gunderson said corn on fallowed land has retarded growth early in the season and appeared to develop normally in July and August. The resumption of normal growth may be due to warmer soil. Soil moisture is usually higher on land which has been summer fallowed than on cropped land, and soils high in moisture are slower to warm up.

Gunderson had no recommendations for correcting the growth of the corn once the symptoms appear in the field. However, he suggested three precautions which may aid in reducing the problem:

(1) Small grain should be sown on fallowed land. (2) Idle acres should be sown to a cover crop, to be plowed under in the fall. (3) If corn is to be planted, the farmer should check the soil temperature and perhaps delay planting.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
December 6, 1963

*For release at 10 a.m., *
*Monday, Dec. 9 *

DEAN BERG VIEWS CHANGING EMPHASIS IN SOIL SCIENCE RESEARCH

New approaches in soil science research, designed to cope with changing agricultural conditions, were reviewed today at the Soils and Fertilizer Short Course on the St. Paul Campus of the University of Minnesota.

Sherwood O. Berg, dean of the Institute of Agriculture, said the Institute has research projects in soil science ranging from determination of fertilizer effects on different soil types to studies of how tiny soil organisms produce chemical compounds and affect plant growth.

These projects, Berg said, reflect shifts in emphasis to keep pace with the changes in agriculture and the rest of society.

He said that among the Institute's soil science research projects, one in four has been developed within the past five years.

(more)

add 1 -- soil and fertilizer

As one example, he noted the increased study of minor elements, such as copper, sulphur, boron, molybdenum, zinc and iron, as contrasted with traditional studies of nitrogen, potassium and phosphorus.

He pointed to the seeking of knowledge about soils for new crops, such as soybeans. He said the use of pesticides as a routine procedure in weed and soil parasite control has created a new series of studies.

Conventional soil tillage practices may be in for some refinement, as a result of studies by the Institute on minimum tillage, soil compaction, movement of nutrients through different kinds of soils and soil erosion.

Even the weather is being subjected to intensive basic research, through studies in soil climatology mentioned by Berg. Conventional weather observations are too gross. They do not for example, describe conditions near the ground to provide data needed to find out how different conditions promote or restrict fungal and bacterial diseases.

Such research is carried on around the state, at the central experiment stations at St. Paul and Rosemount, at the outlying experiment stations and on scores of private farms.

Last year, in one project alone, the Institute had soil studies in 400 fields involving 92 different soil types.

Similarly, Berg continued, much soils research is in cooperation with industry. As examples, he mentioned projects on coated slow-release fertilizers, movements and transformation of nitrogen, efficiency and possible losses of nitrogen fertilizer and studies on sulfur in soils and plants.

The Institute of Agriculture, Berg said, has an obligation "to provide an appropriate balance between immediate problem solving and keeping the 'storehouse' replenished with basic knowledge."

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
December 9, 1963

To all counties
Immediate release

"MINOR PRODUCTS"
FROM WOODLANDS
AID FOREST FUTURE

Workers near Hinckley are completing a factory which will slice local logs into boards which become pallets for the trucking and hauling industry.

Travelers on highways north of the Twin Cities every day sniff the spicy smoke from plants making those charcoal briquettes that have become so much a part of backyard cooking.

A rural family near Chaska, Minn., just finished overhauling a big syrup boiler which they will fire up when the maple sap starts flowing next March.

And people shopping in any town or city of Minnesota this week go but a short way before seeing piles of evergreens for sale for the holiday season.

One common element stands out in these incidents. A forest product is being sold or readied for market--and it's a different kind of product than used to be thought of along with the forest industry.

All four of these products--maple syrup, Christmas trees, charcoal briquettes, and pallets--reflect forest products with a promise for the future, say extension foresters Marvin Smith and Bill Miles at the University of Minnesota.

Take maple syrup, for instance. Minnesota has about 6 million "tappable" maple trees, only one in 20 of which are being tapped now. Potentially, with management and time, some 12-15 million tap-holes could be brought into production. And they're often in areas where the woodlands have not traditionally been much of an income source.

Pallets offer a good outlet for low-grade hardwoods. Pallets are low, sturdy platforms for moving goods with mechanical lift equipment.

add 1 - misc. forest products

The pallet industry is keenly competitive, however. Making pallets requires a relatively low factory investment, and little overhead in raw material. The main opportunities in this product, Smith and Miles say, seems to be for manufacturing with production volume, where you can be depended upon for deliveries.

Pallet manufacturing could be fitted in with a sawmill operation. Furthermore, pallets can be made from aspen. Research at the U. S. Forest Products laboratory at Madison, Wis., shows that with a slightly thicker board, and better nailing, an aspen pallet can outperform pallets made from other hardwoods.

Charcoal manufacturing is likely to increase in Minnesota, at least when installations now being built go into production. Again, this is a competitive industry and the foresters see only modest growth in overall volume in the next few years.

The Christmas tree business has become familiar to thousands of landowners in recent years, as more and more salable trees are being raised on plantations and as tastes in trees undergoes something of a shift toward the long-needled pines.

Christmas tree consumption in the U. S. this year is expected to reach about 45 million--or about one for every four persons. Again, it is competitive. Future emphasis will be on quality--cultured trees. Even balsam fir, traditionally "cut as it grows," in the future is more likely to get some shearing and pruning attention in its growing years.

The picture for other "miscellaneous" forest products is more variable. The pole market for Norway and other pines looks promising, as such poles come into demand for certain kinds of building. In 1960, a timber census showed, the cut of poles was nearly a fourth above 1958, totaling more than a fourth of a million in the lake states.

Mine-timber production has declined, as less ore is mined from this state and as substitute materials and changes in mining methods have lessened the demand for wood. According to the last count made in 1958, tonnage of mine-timber was down by a third from 10 years earlier.

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Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
December 9, 1963

To all counties
Immediate release

OATS CROP FACES
MORE RUST TROUBLE

In spite of the best efforts of plant breeders and the new oats varieties of recent years, oats fields are facing more trouble ahead with rust diseases.

Races of crown rust that can attack all currently recommended oats varieties in Minnesota have been present in Minnesota for several years, according to Herbert Johnson, extension plant pathologist at the University of Minnesota.

Some varieties have less rust than others in field trials, Johnson says, but this is because of a mixture of races in the field.

Some older and more susceptible varieties are attacked by many races, while some of the newer and more resistant ones are affected by only a few races of crown rust.

Therefore, Minhafer, for example, might have fewer rust pustules per plant than a variety like Bonda. But the fact remains that the new, virulent races of crown rust can build up to high proportions and damage any present recommended varieties, including Minhafer.

One encouraging part of this otherwise gloomy picture is the fact that oats varieties, even though susceptible to rust, may vary widely in their tolerance to the disease. That is, two varieties may both be attacked by a given race of crown rust. But one may be damaged severely by the attack whereas the other, growing in the next field, may show only a slight loss of yield.

For example, the Portage variety of oats seems to have some degree of tolerance. It is attacked by many races of crown rust, but seems to rust more slowly and less severely than many other varieties.

The outlook for stem rust in oats is much the same as for crown rust, Johnson says. For several years, races of stem rust which could attack many of our most resistant varieties have been identified on the North American continent.

add 1 - rust in oats

In 1963, a race designated as 6AF of stem rust was found in a few locations, including some in Minnesota, other areas of the North Central region, and Canada. This race causes a severe rust reaction on all of our most rust-resistant oats varieties.

Much remains to be known about race 6AF of stem rust. Sometimes, Johnson points out, a new virulent race of rust will lack something that it would need to become a serious threat.

Just how serious race 6AF will be remains to be seen, Johnson says, but the problem is that we are not as well prepared with resistant varieties as we have been for several years.

To sum up, Johnson says, stem rust and crown rust races that can attack all recommended oat varieties are in the region. Just how severe the diseases will be, of course, varies with other factors. One is weather, which if favorable to rust infection in 1964 could lead to severe damage.

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Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
December 9, 1963

To all counties except
(Cook, Lake, Lake of
the Woods, St. Louis,
Koochiching, Itasca,
Carlton, Cass, Roseau
and Kittson)

Immediate release

WESTERN ROOTWORM
CAUSING PROBLEM

The western corn rootworm is present throughout most of southern Minnesota and is firmly established in the southwest corner of the state, warns John A. Lofgren, extension entomologist at the University of Minnesota.

The concern over the western corn rootworm stems from its resistance to the commonly used soil insecticides aldrin and heptachlor.

When the western species establishes itself in a field or a locality, the northern rootworms become less abundant and the western dominates. It is apparently more vigorous and damaging than the northern.

Lofgren said the rootworm is expected to continue thwarting the corn industry and eventually become detrimental to harvest profit.

He suggests the following measures may be helpful in minimizing losses due to western and northern rootworms.

1. Wherever practical, rotate the badly infested fields to crops other than corn in the following year.
2. Avoid late planting dates for fields which are probably infested. As a general rule, other factors being equal, late planted corn is more severely damaged than early planted corn.
3. When corn is planted in fields likely to be economically infested with western or resistant northern rootworms, certain phosphate insecticides may reduce the severity of the losses if the chemical chosen is properly applied. Chemicals which have label approval for the control of resistant rootworms are granular diazinon, phorate (Thimet), stabilized parathion and compound 4072.

add 1 - western rootworm

Aldrin or heptachlor is still recommended for the control of non-resistant populations of rootworms. The cost of the organic phosphates will be considerably higher than aldrin or heptachlor.

The phosphates are less effective against resistant rootworms than aldrin or heptachlor are against non-resistant rootworms, and also relatively ineffective against other soil insects.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
December 9, 1963

To all counties
Immediate release

IN BRIEF.....

Hormone balance, while not completely understood, may be of some future use in controlling sheep reproduction. Research at the University of Minnesota and elsewhere suggests that it is possible for ewes to have lambs during any season, to produce all twins, or to lamb three times in a two year period. However, the dosage of hormones to feed and the hormonal balance in the sheep's body has not been worked out in fine enough detail for general application.

* * * *

Land left idle and summer fallowed for a year often produces a poor crop when planted in corn the following summer. Orville Gunderson, Chippewa County area soils agent, says the problem has been most frequent in western Minnesota, but has also occurred in east central counties. Where land was summer fallowed the previous year, the corn often showed stunted growth, reduced plant stand, delayed maturity, and spindly stalks. The adverse effects are most pronounced in early plant growth.

* * * *

With a tax cut possible in 1964, it may be wise to increase expenditures now and postpone income until 1964. According to Paul Hasbargen, extension economist at the University of Minnesota, every 100 dollars of expenses moved forward, or income postponed until next year, will save 20 dollars in taxes for taxpayers in the lowest bracket.

* * * *

If the weather allows it, this is a good time of year for pruning forest trees, according to Bill Miles, extension forester at the University of Minnesota. You can remove any live or dead side branches, with less danger of tearing bark. Pruning is possible until bud swellings appear in the spring.

* * * *

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
December 9, 1963

To all counties
4-H NEWS
Immediate release

4-H INSTITUTES
TO TRAIN LEADERS

The role of project and junior leaders and of county extension agents in working with leaders will be the principal topics for discussion at the 1964 4-H Leaders' Institutes to be held throughout Minnesota, according to Wayne Bath, associate state 4-H club leader at the University of Minnesota.

Ten area institutes will be held in January, covering the state. Representatives from seven to 11 counties will attend each meeting. The institute for

_____ County is scheduled for _____ on _____.
(place) (date)

_____, _____ agent, and four adult leaders will attend the session: (give names and addresses of leaders).

_____ and _____, assistant
(give names)

state 4-H club leaders at the University of Minnesota, will conduct the institute for this area.

Leaders attending the institutes will present the material to 4-H leaders from each club in their own counties at a later time.

Purpose of the institutes is to improve the performance of leaders in the local 4-H club, thus increasing the effectiveness of the local club program, says County Agent _____. Approximately 11,000 adults in Minnesota volunteer their services to local 4-H clubs, giving in time alone what amounts to a total of 16 or more days a year to club activities.

-jbn-

Note: Let us know if you want mats of 4-H staff members conducting your area meetings. Specify the number you wish.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
December 9, 1963

To all counties
ATT: Home Agents

HOLIDAY FOODS
PLENTIFUL ALL
THROUGH DECEMBER

Food stores will be filled with holiday foods all month.

Heading the U. S. Department of Agriculture's list of plentiful foods are beef and pecans.

Consumers can be assured of finding good beef at attractive retail prices, since 15 percent more beef is expected to go to market this month than last.

Pecans are particularly abundant. They are coming in from an all-time record crop four times larger than in 1962. Add them generously to Christmas cookies, salads and cakes.

Good holiday buys in meats -- besides beef -- will be pork and turkey. December pork marketings will be larger than last year at this time. Turkeys will be available in a variety of sizes to fit family needs.

Bright red cranberries and apples will compete for the title of brightest, most plentiful and most attractively priced fruit on the market. Their versatility is apparent as homemakers serve them as sauces, in salads or desserts.

Peanuts will be in generous supply for Christmas stocking stuffers. Because of a well above average harvest, you'll find plenty of peanuts in the shell, salted, in candy and in a variety of peanut products.

-jbn-

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
December 9, 1963

*For release at noon, *
*Dec. 10, 1963 *

NEW DIMENSIONS SEEN FOR UM INSTITUTE OF AGRICULTURE

Who are the clientele of a land-grant agricultural college? What educational material does such an institution have to offer?

The dean of the Institute of Agriculture at the University of Minnesota answered these questions today with these words: universal education--for all people, and close to the people.

Sherwood O. Berg told the annual meeting of the University's Agricultural Extension Service that a land-grant university philosophy of universal education must be sensitive to the social, economic and technological changes of our time. He reviewed these changes and noted their implication for county and state members of the Agricultural Extension Service.

Agricultural Extension Berg said, provides a vehicle through which resources of the University can be taken directly to all people, in every county of the state. And through sensitivity to their needs, Extension can bring people and their problems into contact with the University, he added.

"Society is expecting," Berg said, "that changes and modifications will be made in programs, while at the same time the traditional extension roles are adjusted and modernized to meet the needs of the people."

(more)

add 1 -- Berg speech, extension conference

He pointed to several examples of Extension's continuing education in depth.

These included:

- * Farm and home development.
- * Area schools in livestock and soils and crop management.
- * Sequential education for agricultural suppliers and marketing firms.
- * Rural-urban leadership seminars in public affairs.
- * Rural Areas Development, embracing the full array of natural and human resources in an area and facing the challenges of changes in the social and economic structure.

"Education and research are the expected means of obtaining a more productive and satisfying life," Berg observed. He pointed to the impetus given research, technical services and education by the private sector of the economy, and recognized that a knowledgeable and demanding public will place pressure on educational institutions such as the Institute of Agriculture.

He pointed out that agricultural productivity of recent years continues to free people to other occupations. Minnesota was 62 percent urban in 1960.

The labor force has a continual unemployment of 5 to 6 percent, he said, and added that new technology demands skills for those seeking first employment or re-employment.

These developments have direct bearing on educational programs of the Institute of Agriculture, he said. The land-grant system has been responsive to the changing environment and social structure in the past and can continue to respond to changes in the future, he stressed.

"We are on a search," Berg said, "for an improved Institute of Agriculture which will discover, interpret, organize and disseminate intelligence of theoretical and practical use in the furtherance of man's economic, social and cultural objectives.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
December 10, 1963

Immediate release

UM SOYBEAN RESEARCH HAS INTERNATIONAL FLAVOR

The fact that December in Chile is as balmy as a Minnesota July is a boon to an intensive soybean breeding project at the University of Minnesota.

Fertile fields in Chile's central valley, between the towering Andes and the Pacific coast, are being used to increase the precious stocks of soybean seeds from crosses and selections vital to varietal breeding.

The ultimate goal is to develop new soybean varieties that grow well in the state and make a good showing on the world market. But crop variety breeding is slow work and the Chilean project promises to speed it up.

As with any crop, soybean breeding means a complex process of crossing and selecting to combine the characteristics of different varieties into one new one. Seed from a cross is raised, desirable plants are selected, their seed is raised for further selection, and so on. This process may extend over several generations, or crop years.

(more)

add 1 -- soybean project

With only one crop a year in Minnesota, selection can be slow business. But raising two crops a year could cut the time in half.

With barley, wheat and other grains, plant scientists for several years have been operating nurseries for increase and selection in the Southwest. That means two crops in one calendar year--one there and one here.

However, soybeans do poorly during winter in the Southwest. They were tried in Mexico, again without success. Some plants would have a few pods, some none at all.

Then, agronomists J. W. Lambert and R. L. Cooper tried another tack: Why not go south of the equator, where seasons are reversed? The first try was in Argentina. But there, soybean plants were heavily attacked by diseases and insects.

Then, some Chilean students on the St. Paul Campus suggested their own country and last year Lambert and Cooper gave the idea a whirl and were pleased with the results. The beans thrived in the Chilean climate, were harvested in April and the seed came back to Minnesota by jet, in time for spring planting.

The cooperative project with Chilean farmers and experiment stations is so promising that Lambert is going to that country on a sabbatical leave next month to spend a year on further study of the project and ways to expand it.

Why so much effort to develop new soybean varieties? The answer to that question comes largely from another foreign land--this time Japan, one of the major export customers for U. S. soybeans.

In the U. S. soybeans are used largely for their oil, with the meal going into protein feed for livestock. But in Japan, about a third of the soybeans are used for human food. So the question reduces largely to finding out what kind of bean fits the likes and needs of Japanese consumers.

What kind of variety is needed and why aren't existing varieties adequate?

(more)

add 2 -- soybean project

The number one soybean variety in Minnesota today is Chippewa--a good dependable variety that yields well. But Chippewa soybeans have a black hylem, or seed spot, that Japanese people don't like in foods such as their Miso, Tofu, and Natto which they make from soybeans.

Furthermore, the Japanese like a large bean that absorbs water well for cooking, and one high in soluble protein.

These then, are qualities that Lambert, Cooper and plant pathologist Bill Kennedy are seeking to combine in new soybean varieties. The ideal is high protein, solid yellow seeds without the black hylem, good taste, and good cooking characteristics.

Also, however, the variety must do well in the field--grow well, mature soon enough, resist diseases and produce a profitable yield.

Many of these characteristics are in different soybean varieties now, but the ideal combination is still being put together. Harosoy soybeans, for example, have solid yellow seeds, but mature too late for much of Minnesota. Chippewa has good field characteristics but has the black hylem which seems to be objectionable to the Japanese.

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63-359-pjt

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Immediate release

SIX 4-H'ERS WIN TRIPS TO NATIONAL CONFERENCES

Outstanding records of 4-H leadership and project achievement have won trips to national conferences for six Minnesota 4-H Club members.

The four young people selected as Minnesota delegates to the National 4-H Club Conference in Washington, D.C., next April are: Mary Ann Schubert, 19, Buffalo; Dean Schutte, 18, Osseo; Beverly Shelstad, 17, Doran; and Donald Untiedt, 18, Edgerton.

Kathleen Grant, 19, Duluth, and Warren Sylling, 19, Caledonia, will receive all-expense trips to the American Youth Foundation Leadership Training Camp held next summer at Camp Miniwanca in Shelby, Mich.

Being chosen as a delegate to either of the events is considered one of the highest honors a 4-H'er can receive.

The Minnesota Bankers' Association sponsors the National 4-H Conference trips. Scholarships for the Michigan camp are presented by the Ralston Purina Company, St. Louis, Mo.

Five of the winners attend the University of Minnesota, Miss Grant at its Duluth branch. Miss Schubert is a registered cosmetologist in Buffalo.

The young people have demonstrated leadership ability as officers and junior leaders of their local clubs and county councils. In recognition of their 4-H work they have received trips to health, safety or leadership camps, the State Fair and the Club Congress in Chicago. They have won many medals and blue and purple ribbons for achievement in specific projects. According to Leonard Harkness, state 4-H Club leader at the University of Minnesota, these 4-Hers have all excelled in project work and demonstrations.

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Immediate release

4-H RADIO SPEAKING CONTEST ANNOUNCED

The 22nd annual statewide 4-H radio speaking contest will be held between January and March, 1964, Mrs. Claudia Woker, assistant state 4-H club agent at the University of Minnesota, has announced.

Subject of this year's event is "What is my responsibility in bettering inter-racial and inter-religious understanding?"

To be eligible to enter local or county radio speaking contests, 4-H'ers must be over 14 years of age but not over 21 on January 1. Former state and reserve state champions are not eligible.

Local, county and district contests will be held. County contests must be held by Feb. 15, district contests between Feb. 15 and March 7. State finals are scheduled for March 23-24 on the University of Minnesota's St. Paul Campus.

The Minnesota Agricultural Extension Service and the Jewish Community Relations Council of Minnesota co-sponsor the event. Awards are given by the Jewish Council.

Last year more than 1,000 Minnesota 4-H'ers participated in local competitions arranged under the direction of 4-H club leaders and county extension agents.

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*For release at 3 p.m., *
*Monday, Dec. 16 *

CHANGE IN VIEWS OF EDUCATION NEEDED BY RURAL PEOPLE, UM DEAN SAYS

Rich and rewarding careers for young people who have their interest in agriculture are being missed all too frequently, the Minnesota Farmers Union annual meeting was told today.

Sherwood O. Berg, dean of the Institute of Agriculture at the University of Minnesota, said a change is needed in the concepts held by many rural people regarding higher education.

He told the Union delegates at the St. Paul auditorium that "our youth must be made aware of skills needed in a highly integrated economic society for successful employment.

"Skills are needed in the efficient operation of a highly technical business; the farm operation. The challenge of science, economics, technology, teaching, research and administration in agriculture should not be overlooked," he continued.

(more)

add 1 -- Berg address, Farmers Union

Berg said that last year there were four jobs available for every Institute graduate with an agriculturally-oriented background. They received an annual starting salary of \$5,900--just under the starting salaries for professional engineers.

Yet, said Berg, we find historically that a low proportion of rural youth go to college--only 28 percent of the males and 26 percent of the females from rural farm backgrounds. He compared these figures with 56 percent of urban males and 43 percent of urban females who seek higher education.

Education, occupations and income are interrelated, Berg pointed out. The higher the education level of a county's adult population, the higher the income level. Also, counties with expanding opportunities in faster growth industries, such as manufacturing, retail and wholesale trade and service, tend to have higher family income.

As an example of changes in occupations, Berg explained that employment in agribusiness has grown 130 percent since 1940, while other employment opportunities in the state increased at a rate of 40 percent.

Agriculturally related businesses are growing for several reasons, said Berg. "We have reached the threshold of a consumer society," he said. "People demand new products. They want old products in more convenient forms. This has resulted in the proliferation of specialized functions which has given rise to occupations and skills unknown a decade ago."

In view of the changing needs in education for rural Minnesotans, Berg pointed out that the Institute of Agriculture and the University as a whole are organized on a state-wide basis for resident instruction, research and continuing education to better serve the people.

He described in detail some of the newer approaches and programs developed by the Institute and the rest of the University to meet the changing technological conditions in Minnesota and their resultant social and economic impact.

He mentioned three examples of the Institute's efforts in continuing education.

(more)

add 2 -- Berg address, Farmers Union

1) Rural-urban leadership seminars. Such seminars, held around the state in recent years, have three main goals, Berg said. First, they are to help rural and urban leaders define and discuss together public affairs issues of local and national scope yet important to the entire community. Second, they help leaders develop skills for analyzing situations and issues in their own communities. And third, they help seminar participants improve their abilities as community leaders in farm or civic organizations or political parties of their choice.

2) Rural Areas Development. This is a program carried out at the county level by local people, with University agricultural extension personnel serving in an initiating and educational capacity. Rural Areas Development, said Berg, is based on the premise that social and economic adjustments can best be achieved by well-organized planning. It is a process that utilizes all available resources, with local organizations representing all interest groups in the community. Eighty counties are either organized into area development committees or are organizing, and some 11 counties have completed overall social and economic development plans (OSEDPs). The competency of the entire University is available for these projects, Berg said.

3) Farm and Home Development. This is a program annually involving some 600 to 800 families in 65 counties, according to Berg, reflecting the philosophy that the income resource problem can be dealt with through educational efforts. The program is directed toward younger families who wish to make farming a career and are planning the business in light of family goals. Such education approaches adjustment problems revolving around the family's ability to acquire resources, manage these resources effectively, and perceive and analyze off-farm opportunities. Families taking part in the farm and home development workshops are gaining an increased awareness of adjustment problems, improved ability to make management decisions, and a broader prospective regarding alternatives, said Berg.

Berg also mentioned other continuing education efforts conducted by the Institute of Agriculture through its Agricultural Extension Service and Department of Agricultural Short Courses.

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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
December 16, 1963

To all counties
ATT: HOME AGENTS
Immediate release

DIETS OF OLDER
PEOPLE NEED
IMPROVEMENT

The food you eat may mean the difference between good and poor health in later years.

Diets seem to grow worse with age, studies show, and from childhood on at a greater rate among females than males. By the time people are 65 or older, their diets are often lacking in some of the essential nutrients needed for good health. Most usual shortages are calcium, ascorbic acid (vitamin C) and the B vitamins thiamine and riboflavin.

Diets faulty in these nutrients could be corrected, say extension nutritionists at the University of Minnesota, by greater use of milk and cheese to increase calcium and riboflavin, by the use of citrus fruit and citrus juices to step up ascorbic acid, and more bread and cereals to increase thiamine and riboflavin. More meat would help raise the level of B-vitamins.

Cutting calories with advancing age is in general a desirable practice because expenditure of energy is much less. However, in reducing calories, it's important not to lower the nutrient quality of diets, the nutritionists say. High-calorie desserts, cakes, and candy could be omitted without reducing important nutrients.

Achievement of good diets is more than a question of know-how. Older people, like others, must have sufficient income to buy a good diet. They must also be convinced that food makes a difference in health in the later years and that money spent on an adequate diet is well spent. Research has proved time and again that a good nutrition can add years to life and contribute to greater enjoyment of the later years.

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University of Minnesota
St. Paul, Minnesota 55101
December 16, 1963

To all counties
ATT: HOME AGENTS
Immediate release

MAKE THAT HAYRIDE
HAPPY -- AND SAFE

The hayride that starts out with such merriment can turn into a horror ride if proper safety precautions aren't taken.

Hayrides are popular forms of entertainment during holiday vacations, but to prevent serious injury, it's important to take proper safety precautions before starting out. That reminder comes from Glenn Prickett, extension safety specialist at the University of Minnesota.

If you're planning a hayride during the holiday vacation, here are some suggestions from the University safety specialist to help protect your guests:

- If horses are used to draw the hayrack, have a driver that will keep the team under control. If a tractor is used, the operator should have a driver's license and permit no extra riders on the tractor or drawbar.
- Secure safe equipment and check it ahead of time. How many persons will it accommodate safely? Keep your invitations within that limit.
- See that the hayrack has end frames supported by side braces to prevent persons from falling off.
- Be sure the tractor or horse-drawn wagon is legally lighted or reflectorized.
- Plan the route away from heavily traveled public roads. It's better to follow farm trails.
- Place a row of bales down the center of the hayrack for those who want to sit down.
- Prohibit smoking during the hay ride; it creates a fire hazard.
- Remember that pranks and horseplay have no place on a moving vehicle.
- Consider who is liable in case of injury.

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St. Paul, Minnesota 55101
December 16, 1963

To counties in southeast
and southwest districts,
central plus Crow Wing,
Cass, Aitkin, Kanabec,
Pine and Morrison counties

Immediate release

OAK TREE PRUNING
IN WINTER MONTHS
AVOIDS WILT DANGER

If you're in an area endangered by oak wilt disease, the pruning season for oak trees has just begun. Pruning in winter avoids the danger of new oak wilt infections, according to Herbert Johnson, extension plant pathologist at the University of Minnesota.

This reasoning is based on one of the ways the oak wilt fungus spreads. Fungus spores form under the bark of infected trees a few weeks after the trees have died. The fungus pushes the bark out and insects get to these spore mats through cracks in the bark.

Spores become attached to the insects and may then get a free ride to healthy oak trees. However, there is still no damage done unless the healthy tree has a fresh cut or injury somewhere. Only through a fresh injury may spores infect healthy oak trees.

Therefore, Johnson explains, pruning during the growing season is a major cause of new tree infections. But pruning cuts made in winter will be dry by the time growth starts in the spring, and therefore no infection will occur.

Oak wilt fungus can also spread through another means. It can go from tree to tree through root grafts. Pruning branches has nothing to do with this kind of infection, but spread of the fungus this way can be stopped if roots between infected and healthy trees are cut soon enough.

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Department of Information
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St. Paul, Minnesota 55101
December 16, 1963

To counties in central,
northeast and northwest
districts

Immediate release

SULFUR DEFICIT
MAY SPELL SOME
CROP TROUBLE

Sulfur may be one of the crucial ingredients for crops in some areas of Minnesota.

Horticultural plants like turnips and cabbage are heavy users of sulfur. So are alfalfa and the clovers.

A large block of soils in north central Minnesota seems to have a sulfur deficiency, according to A. C. Caldwell, soil scientist at the University of Minnesota. A research project on this problem was begun in 1961, and in 1962 an experimental plot was established at Park Rapids.

In 1962 a number of sulfur-bearing materials were applied to alfalfa, corn and oats to determine what results, if any, could be related to this application. The experiments indicated that there was a significant yield increase for alfalfa and oats. The corn tests were erratic and non-conclusive Caldwell said.

In 1963 the tests were continued with good results. These tests showed that sulfur proved important in winter and subsequent survival of alfalfa, and the yield on sulfur treated plots increased by more than 100 percent. Tests were also conducted on barley, corn and soybeans, but a drouth confounded the results.

Caldwell said sulfur also occurs in the atmosphere and parts of this sulfur does serve as a supply for plant growth. Another set of tests were conducted in different parts of the state to determine the amount of atmospheric sulfur. Caldwell reported that areas such as Park Rapids had a sulfur deficiency stemming, in part at least, from lesser amounts of sulfur in the atmosphere.

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Department of Information
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St. Paul, Minnesota 55101
December 16, 1963

To all counties

Immediate release

IN BRIEF.....

Rural people may need to change many of their concepts regarding higher education, according to Sherwood O. Berg, dean of the Institute of Agriculture at the University of Minnesota. He points out that youth must be made aware of skills needed in a highly integrated economic society for successful employment. Historically, a low proportion of rural youth has gone to college -- only 28 percent of the males and 26 percent of the females from rural farm backgrounds. This compares with 56 percent of urban males and 43 percent of urban females who seek higher education.

* * * *

Soybean research at the University of Minnesota has a truly international flavor. It involves Minnesota, Chile and Japan. The ultimate goal is to develop new soybean varieties that grow well in this state and find a good market in foreign lands, notably Japan. And fields in Chile are being used to increase the precious stocks of soybean seeds from crosses and selections vital to varietal breeding. Since Chile's growing season is in full swing right now, one crop can be raised there in winter and another here in summer. It cuts the breeding program time in half.

* * * *

Consumer preferences in Japan have a major bearing on University of Minnesota soybean breeding research. Minnesota's best and most popular variety, Chippewa, has a black seed spot that Japanese people find objectionable in food which they make from soybeans. So one goal of research is to get a variety that performs as well in the field as Chippewa but doesn't have the spot. Protein content is important, too, and the beans must have the right taste for the Oriental market.

* * * *

Minnesota is no longer the nation's leading flour producer. It now ranks third in milling, behind Kansas and New York, according to agricultural economists at the University of Minnesota. Minnesota accounts for 11 percent of the nation's milling volume. Reasons for the state's decline include development of cheap transportation on the Great Lakes, development of hard winter wheats, milling expansion in Southwestern states, and a trend toward centralization in the milling industry.

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Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
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To all counties
Immediate release

NEW RACE OF RUST
LEADS TO CHANGE
IN UM CROP LIST

A new race of flax rust discovered in Canada in 1962 and in North Dakota in 1963 has led to a change in flax varietal recommendations by the University of Minnesota Agricultural Experiment Station and the Agricultural Extension Service.

The new recommendation is that Army, Marine, Marine 62 and other varieties susceptible to race 300 of flax rust not be planted in 1964. Those which are recommended include Windom, B5128, Bolley and Redwood--all resistant to the new race.

Army and Marine 62 together have accounted for half or more of the state's flax crop in the last two years.

While race 300 has not been seen in Minnesota, University agronomists and plant pathologists strongly recommend against growing any susceptible variety in 1964. The result might be serious economic losses and breeding of new races which could attack varieties resistant to race 300 itself.

Resistance of a crop to rust diseases depends upon the genetic makeup of the variety. In flax varieties grown in Minnesota in recent years, two genes have provided resistance to rust. Plant breeders refer to them as the "L" gene and the "N" gene.

The L gene has been an excellent source of flax rust immunity for over 50 years. But it provides no defense whatsoever against the new race 300 of flax rust. Varieties dependent upon the L gene for immunity include Army, Marine 62, Marine, Cree, Raja, and Sheyenne. None is safe to plant any more.

4 add 1 - flax varieties

In the varieties Windom, B5128, Bolley and Redwood, immunity to rust is controlled by the N' gene. These varieties are still immune to race 300, have other good performance factors, and are therefore the ones to plant.

Losing Army as a recommended variety also means, unfortunately, losing the best source of resistance to pasmo disease. But plant pathologists and breeders working with flax say rust is potentially much more serious than pasmo.

The plant breeders and plant pathologists give three main reasons for planting only rust immune varieties.

1. Raising susceptible varieties would aid the build-up and spread of race 300, which can cause serious economic losses.
2. A large population of rust, which might occur with susceptible varieties, would increase the chance for rust hybridization and mutation. The results could be new races which would attack presently immune varieties. Unlike cereal rust, flax does not require an alternate host for over-wintering and completion of the sexual stages of the life cycle.
3. If new races of flax rust did develop, they could be especially serious, since immune varieties now available all carry the same N' gene for immunity. If a new race were to develop which the N' gene wouldn't stop, there would be no source of immunity in varieties adapted to this state.

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Immediate release

4-H ELECTRIC AND AGRONOMY CONFERENCES HELD AT U OF M

Nearly 100 4-H Club members and leaders will attend the third annual 4-H State Agronomy Conference and the fourth annual 4-H State Electric Conference Jan. 2-4 on the St. Paul Campus of the University of Minnesota.

Leonard Harkness, state 4-H Club leader at the University, will open the joint conference with an outline of its purposes: to give recognition to 4-H'ers in the electric and agronomy projects; to provide further education in the areas of electricity and agronomy; and to explore career possibilities in the two fields.

The young agronomists will tour the Minneapolis Grain Exchange, the Peavey Quality Control Laboratory and Flour Mill and the Federal Reserve Bank.

Included on the electric program are visits to the Northern States Power Company's Black Dog Plant and the Northwest Airlines Overhaul Base at the Minneapolis-St. Paul International Airport.

Both groups will tour the St. Paul Campus. Keith McFarland, associate dean and director of resident instruction of the College of Agriculture, Forestry and Home Economics, will lead a discussion on career opportunities.

The conferences are sponsored by the Minnesota Agricultural Extension Service with the cooperation of F. H. Peavey and Company and the North Central Electrical League of Minneapolis representing Electric Utilities and Minnesota Cooperatives.

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63-361-blk

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December 17, 1963

Immediate release

MEEKER CO. YOUTH WINS AWARD IN SHOP PROJECT

Nine Minnesota 4-H youths will receive awards for the skills they have exhibited in shop work.

State winner is Glenn Freitag, 18, Litchfield, who received an all-expense trip to the National 4-H Club Congress in Chicago from Fullerton Lumber Co., Minneapolis.

Blue ribbon winners in the 4-H shop project are Marlowe Klepel, 16, Odessa; Phillip Dietz, 16, Sleepy Eye; Robert Week, 17, Evansville; Ronald Schleif, 16, Bethel; Peter Schmidt, 16, Stephen; Dean Kern, 16, North St. Paul; Donald Sandborg, 15, Butterfield; Dennis Fomije, 20, Jordan. The eight boys and Freitag will receive cash awards from Republic Steel Corporation, Cleveland, Ohio.

Now a freshman at St. Cloud College, Freitag has been a member of the Harvey 4-H Club for eight years. He has taken shop, his favorite project, for seven years.

He started the shop project by making small articles like a shadow box and napkin holder. Before long he progressed to the building of an outdoor Christmas scene, a wall desk, a tool cabinet, a barbecue pit of cinder blocks, a black walnut spice cabinet and a gun cabinet. He has also rebuilt a scooter.

His biggest project to date has been making a walnut china cabinet with a hutch top and a buffet base. He drew his own design and plans, then spent 150 hours building the cabinet and finishing the wood. The cabinet cost him \$96.71 but he values it at \$185. He won a grand championship on it at the Meeker County Fair and a blue ribbon at the State Fair.

Freitag has won a total of four championships, two reserve championships and a blue ribbon at the Meeker County Fair and one blue and two red ribbons at State Fair on his shop exhibits.

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Department of Information
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Immediate release

STUDENT SCHOLARSHIPS ANNOUNCED

A total of \$3,100 in scholarship funds have been awarded to 10 students in the College of Agriculture, Forestry, and Home Economics it was announced today by Keith McFarland, director and assistant dean.

Seven men and four women are the recipients of the awards. The students, their hometown, classification and scholarship are: Donald V. Shippy, Canby, sophomore in agricultural education, Minnesota FFA Foundation Scholarship for \$1,000 (\$250 a year over four year period); David C. Feser, Wayzata, senior in horticulture, \$400 from Golf Course Superintendents Association of America Scholarship.

Four students received \$300 scholarship awards: John C. Anderson, Cambridge, senior in dairy industry, Borden Agricultural Scholarship Award; Marcella J. Swenson, Mahtowa, senior in home economics, Borden Home Economics Scholarship Award; Gerhardt N. Fick, Vergas, senior in agronomy, F. H. Peavey & Co. Scholarship; and Gerald M. Larson, Milaca, sophomore in pre-veterinary medicine, Sears-Roebuck Foundation Sophomore Scholarship.

Other scholarship winners were: Robert A. Sammelson, Red Wing, senior in soils, National Plant Food Scholarship, \$200; Marjorie E. J. Rodberg, 2232 Draper Ave., St. Paul, senior in landscaping, Twin City Nurserymen's Association Award, \$100, and Federated Garden Clubs of Minnesota Scholarship, \$100; Susan V. Harich, 2139 Finehurst Ave., St. Paul, senior in landscaping, Federated Garden Clubs of Minnesota Scholarship, \$100, and Gerald D. Brown, Kensington, freshman in horticulture, Garden Club of Ramsey County Scholarship, \$50.

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63-363-wlb

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Immediate release

4-H LEADER-TRAINING INSTITUTES SCHEDULED

Ten area institutes to train 4-H leaders will be held throughout Minnesota during January, Wayne Bath, associate state 4-H Club leader at the University of Minnesota, has announced.

The institutes, to be attended by four adult leaders and an extension agent from each county, are scheduled as follows: Ranch House, Fergus Falls, Jan. 7; Northwest School of Agriculture, Crookston, Jan. 8; First Methodist Church, Bemidji, Jan. 9; University of Minnesota, Duluth, Jan. 10; 4-H Building, Rochester, Jan. 14; Southern School of Agriculture, Waseca, Jan. 15; Christ Lutheran Church, Slayton, Jan. 16; Court House, Montevideo, Jan. 17; ^{Zion Lutheran Church,} Anoka, Jan. 22; and Community Building, Litchfield, Jan. 23.

Purpose of the training sessions is to improve the performance of leaders in the local 4-H club, thus increasing the effectiveness of the local club program, according to Bath. Approximately 11,000 adults in Minnesota now volunteer their services to local 4-H clubs, giving in time alone what amounts to a total of 16 or more days a year to club activities.

The role of project and junior leaders and of county extension agents in working with leaders will be the topics for discussion at the sessions. Directing workshop sessions will be members of the State 4-H staff.

Leaders attending the institutes will present the material to 4-H leaders from each club in their own counties.

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63-364-jbn

Department of Information
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December 19, 1963

Immediate release

SERIES OF SWINE FEEDERS' DAY EVENTS SCHEDULED

A half dozen Swine Feeders' Day events will be held around Minnesota in January and February, under sponsorship of the University of Minnesota Institute of Agriculture.

The events will be at the West Central School and Experiment Station, Morris, Jan. 9; Southern School and Experiment Station, Waseca, Jan. 14; Southwestern Experiment Station, Lamberton, Jan. 15; St. Paul Campus, Jan. 16; St. Cloud, Feb. 6 and Rushford, Feb. 11.

Speakers at the events will be livestock research men from the University of Minnesota and other institutions, extension specialists, representatives of branch experiment stations and representatives of the swine industry.

Each of the events will feature research reports, a discussion of breeding for a meat type hog, limited feeding of market hogs and a discussion of other swine management problems.

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63-365-pjt

Department of Information
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Immediate release

KANABEC, CASS COUNTIES COMPLETE OSEDP REPORTS

Kanabec and Cass are the most recent Minnesota counties to complete Overall Social and Economic Development Plans, according to Roland Abraham, associate director of the University of Minnesota's Agricultural Extension Service.

These reports, on two counties in north central Minnesota, point up vividly some similarities and sharp differences as well between different regions, in problems or rural adjustment.

A total of 11 county OSEDP reports have been written so far. These reports are an integral part of Rural Areas Development activities, providing a searching look at the human and natural resources of a county.

The Kanabec and Cass County reports suggest an outward similarity in many respects--declining population, heavy drops in farm population and an increasing proportion of persons in older age categories. Both see some increase in unemployment over 1950.

But beyond these similarities, the reports suggest some sharp differences in problems facing these counties. Kanabec's population drop from 1950-60 was only 2 percent, compared with 15 percent in Cass. And in spite of a drop in agricultural employment, Kanabec sees its future mainly in agriculture and small industry.

Cass, on the other hand, sees forestry and tourism as holding the most potential for future growth. And while Kanabec also has a good forestry resource, the situation surrounding the forest industry is quite different in the two counties.

In Cass County, for example, about three-fourths of the total land is in forests, but well over half is publicly owned, including 217,000 acres in National Forests. In Kanabec County, more forest land is held by farmers and other private land owners than any other group and most of the public land is in county hands. Total welfare expenses in the county rose from \$787,000 in 1950 to \$1.3 million in 1960.

(more)

add 1 -- OSEDFs

In spite of obvious economic problems, however, the Cass County report does show some increases in taxable valuation and levies, reflecting such trends as tourism and rising values of lakeshore property. Total valuation increased nearly 66 percent between 1950 and 1962, and the total increase in taxes was 132 percent in that period. The average mill rate went up 40 percent in that span of years.

Tourism is seen by the Cass report as containing both promise and problems. A 1958 study showed that of the total weekly tourist expenditure in 19 counties in northern Minnesota, 19 percent went to Cass County. This is a greater percentage than for any other county.

Yet, the report for Cass County also sees needs in tourism for more modern recreational facilities and more unified advertising.

Kanabec County's report shows a central concern with problems in agriculture and improvements in industry. The report points out that of more than 1,100 farmers in the county, more than a third do some off-farm work. Local industry in the county has been quite successful, and the report recognizes that manufacturing trade and service industries are supplementing agriculture.

Without these opportunities, the report says, there would probably have been an even greater decline in farms.

Most desirable for its area, said the Kanabec report, would be an industry producing a small, lightweight product which would be relatively valuable on a weight basis. But the report also recognized problems in such expansion--lack of investment capital, need for information on production practices, inability to contact and promote markets.

County extension agents Roland Skelton and Margaret Salo in Kanabec County and Henry Hagen in Cass County played an active educational role in the preparation of the respective reports.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
December 19, 1963

Immediate release

MEATS IN PLENTIFUL SUPPLY FOR HOLIDAYS

Wondering what meat to serve for your Christmas dinner?

You can take your pick from a variety of meats in especially plentiful supply this holiday season--ham, turkey, goose, duck, lamb and chicken, reports Mary Ryan, extension consumer marketing specialist at the University of Minnesota

If you're buying ham, there are three types you should be aware of, Miss Ryan says--smoked hams, which require cooking; cooked ready-to-eat hams, marked cooked on the package and which can be served cold or re-heated; and canned hams. The smoked and cooked ready-to-eat hams can be purchased with the bone or boneless. All canned hams are boneless.

Smoked and ready-to-eat hams require refrigeration. Refrigerate canned hams also, unless the label specifically states that refrigeration is not necessary.

Today's hams no longer have the heavy salt cure and heavy smoking used to make hams that would keep and which necessitated soaking and parboiling. Hams are still cured and smoked, but less intensively. The resulting product is extra mild and tender. It requires no parboiling and only about three-fourths as long cooking, but it does require refrigeration.

In case you wonder how much meat to buy for the crowd you may be serving, here is a guide to help you figure the approximate amount you'll need per serving: chicken, fried or roasted, about 1/2 pound; duck, 1 pound; goose, 2/3 pound; turkey, 3/4 pound; leg of lamb, 1/3 pound; ham, boneless, 1/4 to 1/3 pound; ham, bone-in, 1/3 to 1/2 pound.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
December 19, 1963

Immediate release

FIVE STATE WINNERS IN NATIONAL JUNIOR VEGETABLE GROWERS

Five young people who are members of the National Junior Vegetable Growers' Association have been named state winners in the ninth annual canning crops competition.

The winners, as announced by O. C. Turnquist, extension horticulturist at the University of Minnesota and N.J.V.G.A. adviser for Minnesota, are Paul Johnson, Sheldon C. Melberg and Keith Raitz, all of Hector; Robert Vangness, Kenyon; and Ray Foesch, Bird Island.

The youths grew crops under contract with a nearby canner. They were judged on their skills in planting and producing a vegetable crop, the know-how with which they reported their work and on their participation in civic activities.

The Minnesota State Cannery Association is planning a recognition banquet in January for the winners and for others participating in the canning crops project.

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63-368-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
December 23, 1963

To all counties
4-H NEWS
Immediate release

RURAL YOUTH
MAY BECOME
IFYE DELEGATES

Five or six months abroad, living and working with foreign families and making enduring international friendships are being offered to Minnesota rural youths.

Rural young people, 20 to 30 years old, are urged to make long range plans and investigate becoming an International Farm Youth Exchangee (IFYE) delegate in 1965.

The purpose of the IFYE program, according to Evelyn Harne, associate 4-H Club leader at the University of Minnesota, is to increase international understanding at the grass roots level. Delegates from the United States learn about life in foreign lands by actually living the way their people do, by working with them on their farms.

Candidates for the program must be mature young people with a farm background and at least a high school education. They must be in excellent mental and physical health. They should be ready to spend considerable time on language study and in intensive advance study of the geography, history, culture and agriculture of both the U. S. and the country they will visit.

Upon return home, IFYE delegates speak to various groups about their experiences in their host countries.

Additional information on the IFYE program may be obtained from the county extension office. Application forms will be available in May.

Last year Minnesota had three IFYE delegates--one to Switzerland, another to Wales and England. A third delegate is now in Jamaica.

Since 1948 more than 3,000 young people have participated in this exchange between the U. S. and 63 other countries.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
December 23, 1963

To all counties

ATT: HOME AGENTS

First in a series on
outlook

LESS OF
SMALLER SHARE OF
INCOME TO GO FOR
FOOD NEXT YEAR

You'll be spending less of your income for food next year, although your food may actually cost a little more.

Economists in the U. S. Department of Agriculture predict that for 1964 Americans will spend an average of only $18\frac{1}{2}$ percent of their incomes for food, $\frac{1}{2}$ percent less than in 1963. The proportion of disposable income spent by the average American for food has been dropping each year -- from $23\frac{1}{2}$ cents out of each dollar in 1951 to 19 cents in 1963. For every dollar of increase in disposable income in 1963, around 15 cents has been spent for food, including what is bought in restaurants and other eating places as well as in grocery stores.

Retail food prices may creep upward during 1964 as they have in most postwar years, reports Mary Ryan, extension consumer marketing specialist at the University of Minnesota. However, the rise is expected to be less than the increase in 1963, when food prices averaged about $1\frac{1}{2}$ percent above those in 1962. Further increases can be expected in prices of food consumed in restaurants.

Livestock products, which take a big slice of the family food budget, will probably average about the same in retail prices as in 1963, although there may be some price declines for beef, eggs and other products expected to be in large supply. Red meat and chicken prices normally decline in the final months of the year.

Poultry consumption, which was up slightly in 1963 over 1962, may continue to go up in 1964. Red meat consumption per person will probably remain near 1963 levels. Some further rise may occur in beef consumption, but no repetition of 1963's sharp increase is in prospect. Pork consumption may be down slightly.

Little change is expected in consumption per capita of dairy products.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
December 23, 1963

To all counties
Immediate release

IN BRIEF.....

Lagoons for waste disposal? This approach to handling manure and other waste products has been given much attention lately, according to Clarence Christopherson, University of Minnesota agricultural engineer. It may be a useful idea to consider along with livestock confinement, Christopherson says. But it requires some caution, too. The soil must be such that the lagoon will hold water naturally. The lagoon must be built where it will not contaminate drinking water or streams, and it should be located away from farm dwellings.

* * * *

More OESDPs completed: Kanabec and Cass are the most recent Minnesota counties to complete Overall Social and Economic Development Plans, according to Roland Abraham, associate director of the University of Minnesota's Agricultural Extension Service. This brings to 11 the total number of OSEDP reports written so far by local people, as a part of Rural Areas Development activities. These reports provide a searching look at the human and natural resources of a county and give some guides for future action.

* * * *

Good weather and good yields--that's the summary of the 1963 crop season from the state agricultural statistician's office. Soil moisture was adequate last spring in most of Minnesota, and June, July and August were warm and dry with rains arriving near the end of each month providing some relief. Fall brought excellent harvesting weather and a minimum of problems with, for example, soft corn. All in all, the statistician's office says, it was a good production year.

* * * *

Corn is king of the crops in much of Minnesota and acreage data show it. A recent University of Minnesota extension publication, Minnesota Crops, shows that corn accounted for nearly two-fifths of all cropland harvested in Minnesota in 1959. This crop showed an acreage increase greater than for any crop in the southern half of the state in 1959, compared with 1954.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
December 23, 1963

To all counties
Immediate release

LEAF BLIGHT
KILLS FOLIAGE

Honeysuckle leaf blight has caused considerable loss of foliage in recent years says Herb Johnson, extension plant pathologist at the University of Minnesota.

This disease may be responsible for the dying of branch ends, although complete killing of honeysuckle bushes is probably rare, Johnson points out.

He says that it is not uncommon to see honeysuckle bushes in windbreaks with the old, tall branches dead, but new growth near the ground.

Leaf blight infection occurs on young leaves and the first symptoms are yellowish green spots. These spots turn tan and continue to alter their coloration until they become a brownish black. A gray-white surface layer is often present over the darker colors.

All of our honeysuckle varieties and species are apparently susceptible, says Johnson, but some of the dwarf types have been reported as having a degree of resistance.

Moisture on the leaves is necessary for fungus infection. Densely planted windbreaks are likely to stay moist for many hours following rain or dew. This is a likely reason for some severe defoliation in windbreak plantings, Johnson believes.

The control formula calls for fungicide application early in the spring. Initial treatment should be applied when leaves unfold. Several additional applications can be made at 10-day intervals. Since infection occurs on young leaves, it is not necessary to continue treatment during the entire season, Johnson maintains.

Recommended fungicides are captan, fixed copper, maneb and zineb. They may be purchased through garden stores or agricultural chemical dealers.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
December 23, 1963

Special to counties in
Southwest and Southeast
districts only.

CORN STUNT DISEASE
UNLIKELY TO REACH
MINNESOTA FIELDS

Corn stunt is a serious crop disease, but it is not likely to occur in Minnesota, according to Herbert Johnson, extension plant pathologist at the University of Minnesota.

A new corn disease did appear in southern Ohio and Indiana in summer, 1963, with symptoms similar to corn stunt, but it still isn't known for certain what the disease was, Johnson says.

Some Minnesota corn growers have become concerned about symptoms that may appear similar to corn stunt disease. But Johnson says such symptoms have usually turned out to be due to other diseases or nutrient deficiencies.

Yellowing, for example, could be the result of a deficiency of nitrogen, potash, or a minor element. An overgrowth of the tassel, called "crazy top" is caused by downy mildew infection.

Symptoms of corn stunt disease are stunting due to short internodes and bushy growth caused by shoots growing from node buds, yellow streaking of leaves and production of numerous small and poorly filled ears per stalk. No combination of symptoms such as these have been seen anywhere in Minnesota.

Corn stunt is a virus disease that has been identified in California, Texas, Arizona, Mississippi, Louisiana and other areas with warm, mild climates. It is spread by at least two different leafhoppers.

It isn't known for certain, Johnson says, whether corn stunt could ever develop in Minnesota. The leafhoppers that carry the virus have never been identified this far north. The virus is not seed borne.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
December 23, 1963

To all counties
Immediate release

HOG MANAGEMENT
IS SHIFTING
TO CONFINEMENT

Confinement is a growing trend in swine production.

It has been catching hold over the past 15 years and for two main reasons: economics and sanitation.

The whole idea of confinement and modern housing systems for hogs will be discussed in detail at six Swine Feeders Days around Minnesota this winter, according to Ray Arthaud, extension livestock specialist at the University of Minnesota.

The events are at the West Central Experiment Station, Morris, Jan. 9; Southern Experiment Station, Waseca, Jan. 14; Southwestern Experiment Station, Lamberton, Jan. 15; St. Paul campus, Jan. 16; St. Cloud, Feb. 6 and Rushford, Feb. 11.

Arthaud has this to say about the switch-over from pasture to confinement. It's not sound economics to devote to swine land which would bring greater returns from crops or other livestock. Another factor is the possibility of saving labor. Water and feed are centrally located in a confinement system, meaning that watering and feed hauling time can be reduced.

From the sanitation angle, confinement makes it much easier to control worms and parasites. Dung which is the carrier of these pests is removed from the swine quarters. On pasture, the open soil and droppings pose a constant threat to swine, which may contact worms and parasites.

Success in a confinement system depends on good management. However, the possibility of a better health environment also presents the danger that disease will spread more rapidly.

add 1 - hog management

Surfaces must be kept clean--scrubbing with lye water occasionally will help do the job. The confined area should be exposed to air and sunshine. Both cleaning methods are good germicidal preventatives.

Certain problems appear in confinement systems more often than they would on pasture land. Manure disposal is a good example, particularly in complete confinement.

Slatted floor houses--complete or partial slatting--deals with this problem most effectively. Slats are 3 to 5 inches in width and separated by about 3/4 to 1 inch. They can be wood, cement or steel. Arthaud believes cement slatting may often be the best buy because of its low price and longevity.

Slatted floor confinement allows for manure to drop down into the pit under the slats. There it may lay a couple of weeks to a few months. Then it can be pumped out or drained to an outside lagoon.

Other types of disposal include the mechanical gutter cleaner which provides a vehicle for transporting manure to the spreader. Another solution is to flush the waste to a septic tank, periodically. The dunging alley which is cleaned by a tractor and scoop is also a common approach to the job.

Confinement systems require a proper amount of space and ventilation. Research has determined that a hog in the slatted floor confinement system needs five or six ft. of floor space. The formula for ventilation is 15 cubic ft. per 100 lbs. of pork for winter ventilation and double this amount for summer ventilation.

Tail biting is another disturbance that is more common in confinement than on pasture land. Swine have a tendency towards this type of action because they are under more stress and strain in close quarters.

According to Arthaud, the problem can sometimes be solved by attracting their attention away from themselves and the other occupants. Play things often do the trick such as tires, innertubes or old feed sacks.

add 2 - hog management

Nutrients supplied in the past through pasture have now become available under confinement. Various vitamin supplements are priced low enough so that farmers no longer need to depend on pasture, alfalfa or hay.

From a practical standpoint, farmers often use the same ratios of feed although it would be possible to make some adjustments in vitamins and minerals and possibly proteins on good pasturage.

Finishing hogs don't need pasture, Arthaud says. The objective is to increase weight and market as soon as possible.

Animal husbandmen still feel there is a place for pasturing brood sows. This will enable them to take advantage of nutrients in the pasture, to restrict feed intake and hold their weight down.

Although the trend is toward confinement systems, Arthaud says that perhaps 25-30 percent of the marketed hogs in Minnesota are raised on pasture during the pasture season.

About 15-20 percent of Minnesota swine are cared for in strict confinement housing and 50-60 percent through partial confinement housing.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
December 24, 1963

Immediate release

QUACKGRASS HARMFUL, BUT REASON UNCLEAR

Quackgrass has been found guilty as a cropland culprit, but so far the judgment is based on circumstantial evidence.

At any rate, University of Minnesota research shows, the malevolence of quackgrass is apparently not a result of any poison exuded by the growing roots or rhizomes of the weed.

More likely, plant physiologists say, the quackgrass is elbowing out the other crops in the competition for plant food, light and water. Furthermore, quack residue decaying in the soil may yield some substances that account for damage to other plants.

The problem isn't restricted to quackgrass alone. Researchers at the University have been attacking the quackgrass situation for years as one case of a more general problem of inter-plant competition--why one plant often wins out over another in the infighting.

Much early evidence pointed to the possibility of some kind of poisonous substance in quackgrass. Extracts from quackgrass plants seemed to have a stunting effect on alfalfa and other crop plants.

(more)

- add 1 -- quackgrass

More recent research, however, shows that the effect is probably due to something else. Plant pathologists John Ohman and Thor Kommedahl at the University tested liquid extracts from quackgrass roots, and found no harm done when this liquid was added to a solution containing fertilizers, in which alfalfa or oats were growing.

Yet, many tests have shown that alfalfa and oats growing in a nutrient solution with quackgrass show yellowing and stunting--symptoms of real plant sickness. Farmers have seen the same effects in the field.

The question is still why.

After reviewing similar studies around the country, Ohman and Kommedahl conclude that the harmful effect may be due to a variety of things, including competition for light, water and plant nutrients. Quackgrass may be able to draw available nutrients away from other plants--especially nitrogen and phosphorus and potassium to a lesser extent.

But why should dead quackgrass shoots, or rhizomes, harm other plants, even when the quackgrass is all dead? Ohman and Kommedahl suggest two possibilities, both having to do with soil microorganisms. One possibility is that microbes tie up the nitrogen in the residues, keeping it from plants.

Another is that the decaying process, involving action of microbes on the residues, yields products which are in fact toxic. Research at Minnesota and other states shows such a possibility--especially when the dead roots and rhizomes decay where no oxygen is present, under what is called anaerobic conditions.

This possibility isn't limited to quackgrass. Residues from other plants, crops included, have been found to yield toxic products and again the problem is made worse where air is kept out of the soil.

Also, decaying residues of quackgrass plants could make a favorable environment for root disease organisms. In a heavy quackgrass infestation, there are so many rhizomes in the upper 3 to 4 inches of soil that roots of crop plants are quite likely to come in contact with quack residue while growing down, thereby picking up the root diseases.

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63-371-pjt

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
December 26, 1963q

Immediate release

PROMPT ACTION IMPORTANT IN STAIN REMOVAL

Prompt action is often the key to success in removing stains on table linen and clothing after holiday feasting.

Many stains that can be removed easily when they are fresh are difficult or impossible to remove later, say extension home economists at the University of Minnesota. But proper treatment before laundering may prevent permanent damage to the fabric.

It's always a good idea to inspect table linens carefully for stains before laundering. Proper treatment before laundering may prevent permanent damage to the fabric. Hot soapsuds and the heat of an iron will set many spots.

Here are some tips from the University home economists for removal of some common stains:

Gravy or meat juice. Sponge with cold or lukewarm water. If a spot remains, work detergent into the stain, then rinse thoroughly. Allow the article to dry. If a greasy stain remains, sponge with grease solvent.

Fruit, including cranberry sauce. If/^{it is}safe for the fabric, pour boiling water through the spot from a height of 1 to 3 feet. When any fruit juice is spilled on a fabric, it's a good idea to sponge the spot immediately with cool water. Some fruit juices, such as citrus, are invisible on the fabric after they dry but turn yellow on aging or heating. This yellow stain may be difficult to remove.

Black coffee or tea. If/^{it is}safe for the fabric pour boiling water through the spot as for fruit stains, then wash in warm soapy water. For nonwashable fabric, sponge stain with cool water. If a stain remains, work detergent into the fabric. Rinse.

Coffee with cream. Sponge stain with cool water. If a stain remains, work detergent into it, then rinse thoroughly. If a greasy stain remains after the fabric is dry, sponge with grease solvent.

Candle wax. Scrape off wax with a dull knife; then place the stain between clean white blotters or cleansing tissues and press with a warm--not hot--iron. Sponge any remaining stain with a grease solvent such as carbon tetrachloride. If a color stain remains, sponge with a solution of 2 parts water and 1 part alcohol. ### 63-374-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
December 26, 1963

Immediate release

PLANS AVAILABLE FOR THREE-BEDROOM MASONRY HOUSE

If you've been looking for plans for a home with plenty of room, a three-bedroom house designed by the U. S. Department of Agriculture may meet your needs.

Plan No. 7141, for masonry, slab-on-grade construction, was developed especially as a farmhouse but may be adapted for rural non-farm areas, town or city.

The plan features ample storage space, a den or office for farm and household record keeping, two baths, three bedrooms, a laundry center, utility room, living room with fireplace and a family and dining area.

The laundry center is located next to the sleeping area, convenient to the source of most soiled clothing and linen. Three nearby closets offer convenient storage.

The family and dining area offers facilities for formal and countertop meals. It is arranged so the homemaker can easily supervise all activities while engaged in her usual household tasks. A desk for meal planning, a toy storage cabinet, and a sewing center are near the front window.

The storage area at the end of the carport is useful for storing outdoor furniture, garden tools and children's wheeled toys.

A plan similar to No. 7141 except that it is for frame construction is house plan No. 7140.

A descriptive leaflet of plan No. 7141 or 7140 is available free of charge from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101. Copies of building drawings of either plan may be obtained for 75 cents from Blueprint Room, Agricultural Engineering Department, University of Minnesota, St. Paul, Minn. 55101. Money must accompany the order for the building drawings.

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63-373-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
December 26, 1963

Immediate release

TRAFFIC LOAD INCREASE TO OUTFRAN POPULATION GROWTH

Increasing automobile use means that total traffic load on Minnesota highways may grow two-thirds faster than the state population between 1960 and 1970, a recent University of Minnesota study shows.

However, the increase will not be equally distributed in all parts of the state; the heaviest increase will be in the Twin Cities and other major urban areas, because of continued concentration of population growth.

The study was conducted by the departments of geography and agricultural economics at the University, under contract with the Minnesota Highway Department and in cooperation with the U. S. Bureau of Public Roads.

John R. Borchert, geography professor making the report, points out that in addition to providing a state-wide highway network, the state highway system has a growing new obligation resulting from urbanization.

Portions of the highway system, will become, to an increasing extent, regional networks serving multi-county trade areas or urban complexes. These complexes, while smaller than the state, spread across the boundaries of many local government units.

(more)

add 1 -- highway projections

Borchert's projections point to state highway traffic gains of more than 60 percent for the 1960-70 period in the region surrounding the Twin Cities and extending as far as St. Cloud, Mankato, Rochester and Menomonie, Wis.

Gains in highway traffic will be equally great in the Fargo-Moorhead area, the North Shore and Iron Range, and the area around LaCrosse, Wis.

Borchert expects long-distance traffic flow to be heavily concentrated in seven major corridors. One extends from the Twin Cities northwestward through St. Cloud and Fargo-Moorhead, and a branch goes northward from St. Cloud to Brainerd and the lake region of North Central Minnesota.

Other corridors of heavy traffic increase are those linking the Twin Cities with the Mankato-Sioux Falls-Sioux City area, Albert Lea, Austin, Rochester and LaCrosse, Duluth and the range cities, and Eau Claire.

These areas generate somewhat more traffic, Borchert explains, because the pattern of population distribution in the region makes them somewhat more accessible than adjoining areas to the total population.

The projections made in the study are based on an analysis of major population shifts in the state over a 90-year period, from 1870 to 1960. The findings show that the past 30 years has been a stage of marked urbanization and metropolitanization, with heavy growth in the Twin Cities area.

This trend, Borchert says, is part of a national pattern, and is not likely to be reversed or shifted without either massive government intervention or technological changes in transportation far different than have already been experienced.

The study illustrates how changing patterns of population can be used in long range highway planning, since they are related to fundamental elements in the nation's changing economy, technology and geography.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
December 2 , 1963

Immediate release

CHRISTMAS PLANTS NEED LIGHT, MOISTURE

The plants you received for Christmas will decorate your home for a long time if you satisfy their needs for light, moisture and the proper temperature.

Your poinsettia plant is especially fussy about temperature; in fact, it's as sensitive to drafts as any human being. Because it is a tropical plant, it likes to be in a room that's between 70 and 75° F. Temperatures below 60° F. or above 75° F. will shorten the life of the blooms. Setting it near a window at night, near the door or a cold or hot air register will mean its quick demise.

C. G. Hard, extension horticulturist at the University of Minnesota, says that poinsettias thrive best if kept in bright light, preferably sunlight, during the day. Keep the soil in the pot moist, using water of room temperature. If the plant is allowed to wilt, the leaves will turn yellow and drop.

Bright light and sufficient moisture are also requirements of other flowering plants of the Christmas season, Hard says. He gives these specific tips on care of some of the popular gift plants:

Cyclamen. Never allow the soil to dry out completely while the plant is in flower, but water around the edges of the pot. Water in the crown may cause rot. Leaves may turn yellow if the plant is allowed to wilt because of lack of moisture. Cyclamen plants require a cool night temperature. Bud blasting and leaf yellowing will also occur if the night temperature is too high or the light intensity too low.

Jerusalem cherry. Keep in a cool room at night. Set in bright light during the day. Fruits drop naturally after they mature; therefore discard the plant when all fruits have dropped.

Christmas begonia. Keep at a cool night temperature. Place in sunlight during the day. Too little moisture will shorten the life of the blooms.

Azalea. The blossoms will last much longer if the plant is kept in a cool room. A constant moisture supply is important.

Chrysanthemum. Partially opened flowers will not develop their full color if the plant is kept out of the sunshine. Abundant moisture, a bright location and cool night temperatures are requirements for long-lasting blooms. ### 63-370-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
December 30, 1963

To all counties
Immediate release

SCHOOL DROPOUT
IS HIGHER
IN RURAL AREA

If society's goal is to bring high school education to everyone capable of benefitting from it, there is still a long way to go.

In spite of improvements in educational systems in recent years, nearly one in six (16.4 percent) of all 19-year-olds in Minnesota has not finished high school and is not enrolled.

Furthermore, the problem is accentuated in rural areas, where roughly a fourth of the persons 19 years old are classifiable as high school dropouts. The dropout rate for rural nonfarm areas are slightly higher than for rural farm.

Both rural categories, however, are far above urban areas, which in Minnesota have about 13 percent of the 19-year-olds in the dropout category.

According to Deane Turner, extension educationist at the University of Minnesota, these data are from a recent analysis by the U. S. Department of Agriculture's Economic Research Service.

Actually, Minnesota has the second lowest percent of total percent of dropouts among persons 19 years old, compared to all other states. Nebraska is lowest and next in line after Minnesota are Iowa, Utah, and Wisconsin.

While Minnesota and Iowa are similar in total proportion of dropouts among persons 19 years old, a closer look at the data shows a sharp difference. Iowa has a somewhat higher urban dropout rate than Minnesota, but a much lower rate in rural areas. The estimated 1960 figures for rural farm dropouts among 19-year-olds were 23 percent for Minnesota and 16.3 for Iowa.

Wisconsin's rural farm dropout rate closely parallels that of Minnesota.

What accounts for differences in dropout rates? The USDA research men found that two variables significantly associated with dropout are level of education of parents and expenditure per student for education.

add 1 - school dropouts

Personal and social consequences of dropping out of high school are several, the research men say. Unemployment rates of persons who quit school tend to be higher than among graduates. Those who quite school earlier also tend to have lower incomes later on.

The national study on dropouts involved several methods of estimates. For the nation as a whole, the data include all persons 14-24 years old who were not enrolled in school and had completed fewer than four years of high school. For the comparisons among states, the data were confined to persons 19 years.

The report points out that by 1970, there will be about 56.4 million persons 14-24 years old in the U. S. If the dropout rate for this age group then is the same as for 1960, there would be 12.9 million of these persons who would fail to finish high school.

Furthermore, this figure does not include persons retarded in school who fail to complete high school education.

With the growing number of young adults in the nation, keeping the total number of dropouts in 1970 at the same level as 1960 would demand that the dropout rate be cut in half during this decade.

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

To all counties (except
Northeast district)

Immediate release

CORN BORER LARVAE
MAY OVERWINTER
IN CORN CRIBS

Corn cribs may have a bigger place in the corn borer problem than was once thought to be the case, a University of Minnesota study shows.

Recent studies at the Waseca station indicate that borers overwintering in storage corn may account for a fourth of the borer moth populations in fields in spring. This means that anything a farmer can do to keep moths from coming out of cribs may help lick the borer problem.

For one thing, harvesting with a picker sheller would eliminate cobs from storage and would therefore keep larvae from overwintering in cribs.

H. C. Chiang, entomologist at the St. Paul campus made the studies in cooperation with John Thompson, agronomist at the Southern Experiment Station, Waseca.

Until these studies were made, the possibility of overwintering larvae in stored corn had been given little attention. So Chiang with the corporation of Thompson did some carefully controlled experiments.

At harvest time in the fall, they checked hundreds of ears of corn whose tips showed little tunnels, the kind a borer makes on his way in. About 7 in 10 of these ears actually had borers inside.

In fall of 1961 and 1962, they put such tunnel-marked ears in special containers and placed them at different levels in upright cribs. All other ears in the crib were known to be borer-free. The crib was surrounded with a plastic cage so that any emerging moths the next spring could be trapped.

During the 1962-63 winter, they started with a fall population of 700 larvae in stored ears. Of these, 203 went through the pupal stage and 157 moths found their way out of the crib.

add 1 - borers

In other words, about 22 percent of the overwintering population (157 out of 700) in the storage crib was out and ready to infest fields the following spring.

Borer survival differed according to where the infested ears were located in the crib. They were more likely to move out of the ears, and more likely to die, at lower levels. Pupa development was earlier and more successful near the top of the crib.

How important are overwintering borers in cribs to moth populations for field infestations? Chiang approached this question with a variety of data. First, he found from other long-time records at the Waseca station that about 18 percent of the overwintering borers at harvest time were in ears stored in cribs and 82 percent were in stalks left in the field.

Next, he noted from field checks that of borers left in crop residue in the fall, only 8 percent survived until the following spring, compared to the 22 percent which would find their way out of cribs. Finally, he allowed for the fact that only part of the corn in cribs remains there over winter; some is used by the farmer. For the state as a whole, statistics show that 57 percent of the storage on Jan. 1 is still in cribs in June.

Working from all these data, Chiang estimated that storage corn contributes at least 26 percent of the moth populations in the field in the spring. This is a higher estimate than was often used in the past, and suggests that farmers might do well to take measures to reduce this overwintering population.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
December 30, 1963

To all counties
Immediate release

PROFIT PROSPECTS
PERKING UP
FOR CATTLEMEN

A sharp drop in feeder cattle prices in December and higher expected slaughter prices on cattle next summer add up to improved profit prospects for cattle feeders, according to Paul Hasbargen, extension economist at the University of Minnesota.

He says the recent drop in feeder prices shows the full effect of a lack of interest among corn belt cattle feeders. Prices for good to choice yearlings have been running \$20 to \$23 per hundred recently, and for calves, \$22 to \$25. This is about \$2 less for yearlings and \$4 less for calves, compared to September levels.

Feeder cattle movement has been slow in recent months, Hasbargen points out. Shipments into the North Central states between July and October, 1963, were 15 percent under a year ago.

Placements on feed have probably also been lower, Hasbargen says, meaning that cattle on feed Jan. 1 may be somewhat lower in number, compared to 12 months ago.

Prices for fed cattle have fluctuated widely during the past year, because of fluctuations in feed lot activity. Hasbargen says the current slow-up in cattle feeding suggests that cattle prices will show a \$5 to \$7 bulge some time during 1964.

This time, the price movement will be to the feeder's advantage, Hasbargen concludes.

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Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
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To all counties

Immediate release

IN BRIEF.....

Traffic loads to outgrow population: With increasing automobile use, we can expect the total traffic load on Minnesota highways to grow two-thirds faster than the state population between 1960 and 1970. But the increase will not be equal throughout the state, according to a study by the departments of geography and agricultural economics at the University of Minnesota. Geographer John R. Borchert says that portions of the highway system will become, to an increasing extent, regional networks serving multi-county trade areas or urban complexes. The heaviest increase in use will be in the Twin Cities and other metropolitan areas.

* * * *

Quackgrass: Guilty on Circumstantial Evidence. Quackgrass has been found to be harmful to other crops growing with it, but the earlier idea that it was exuding a poison of some kind apparently isn't the right explanation, University of Minnesota research shows. More likely, the quackgrass is elbowing out other plants in the competition for plant food, light and water. Furthermore, quack residue decaying in the soil may yield some substances that account for damage to other plants. And the problem isn't restricted to quackgrass alone; this plant has been used in a case study for the more general problem of inter-plant competition.

* * * *

Corn rootworms and winter control. Corn rootworms are more likely to be a problem if you raise corn next summer in a field that also had corn in 1963. What you might do about it depends partly on which rootworm is involved. If it concerns the non-resistant northern corn rootworms, you might consider applying aldrin or heptachlor this winter, right on top of the snow. The field must have been fall-plowed and the land must be fairly level. But if the fields are infested with western, or resistant northern corn rootworm, aldrin and heptachlor won't help. Where that is the case, you would need to take preventive measures at planting time. This advice is from John Lofgren, extension entomologist at the University of Minnesota.

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Department of Information
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Institute of Agricultural
University of Minnesota
St. Paul, Minnesota 55101
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To all counties

ATT: HOME AGENTS

Immediate release
Second in series on
outlook.

GOOD YEAR AHEAD
FOR CONSUMERS
IN CLOTHING

The large supplies of clothing in prospect for 1964 and the keen competition among fibers mean that prices will be about the same as they were last year.

And there's more good news for shoppers in the continued improvements in familiar products and in new clothing products becoming available, say extension clothing specialists at the University of Minnesota.

Some of the recent trends and changes shoppers will want to be aware of in textiles and clothing are these:

- Improvements in cotton garments. All-cotton stretch fabrics for increased comfort are being used for nurses' uniforms, blouses, sport and dress shirts, pants and slacks, corduroy garments and socks.

Collars and cuffs of men's wash-wear shirts will fray less quickly as the result of a wash-wear treated interliner bonded to outer layers of untreated cotton in the collars and cuffs.

A USDA-developed treatment imparts wash-wear properties to cotton and at the same time permanently attaches dyes, starch and other finishing materials such as those that give resistance to mildew, fire and repellency to water and oil.

- More nonwoven fabrics, combining the materials and production techniques of the textile and paper industries. Nonwoven disposable bed sheets and pillow-cases are now available for hospitals. They are said to cost less than the price of laundering those made of cotton. They may be developed for consumer markets.

add 1 - consumers in clothing

- Improvements in woolen apparel and household textiles. These improvements include stretch wool fabrics for comfort and better shape retention in slacks, jackets, men's suits; wool sweaters and blankets that are machine washable; permanently pleated wool skirts and permanently creased slacks and trousers. These easy-care properties are obtained through treatments developed by USDA scientists.

- Developments continuing in man-made fibers and fabrics. Spandex fibers are now being introduced for use in stockings for women who suffer from leg fatigue. Stretch is being added to slacks and beach wear by one form of nylon coiled like a spring. Fluffy texturized nylon yarns are used in sweaters. Nylon fibers with a softer feel are going into women's dresses.

From the consumer's point of view, it looks like a good year ahead in the clothing area.

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Department of Information
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St. Paul, Minnesota 55101
December 30, 1963

To all counties
4-H NEWS
Immediate release

4-H FILLERS

Parents of high school students have a chance to make this year worth an average of \$17,500 apiece to their children. The fact is, if parents keep their children in school this year, they can reasonably expect them to earn an average of \$17,500 more over their working lives than if they dropped out, according to the Chamber of Commerce of the United States. A full four years of high school would be worth \$70,000 extra. For educated persons, good, permanent jobs are plentiful, the Chamber points out.

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Nearly a quarter million 4-H club members are enrolled in conservation projects in this country. Another quarter million attend 4-H camps which feature a strong program in conservation.

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U. S. business firms contributed \$1.25 million in 1963 toward recognition and encouragement of the nation's 2,225,000 4-H club members, Norman C. Mindrum, director of the National 4-H Service Committee, has announced. This record figure made possible awarding of college scholarships and fellowships valued at \$145,000. They were presented this year to 275 of the nation's most outstanding 4-H youths and to young adults who once were 4-H'ers.

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National college scholarships were awarded to five outstanding Minnesota 4-Hers during the recent 4-H Club Congress in Chicago. The scholarship winners and the area in which they won recognition were Terry Lorch, 17, Rochester, \$500, swine project; Lance Sorensen, 16, Welch, \$400, forestry; James Spangler, 18, Janesville, \$500, recreation; Barbara Horihan, 18, Hokah, \$800, home economics; John Allerson, 20, St. Peter, \$400, agricultural economics.

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TRENDS IN MINNESOTA SWINE INDUSTRY TO BE FEATURED AT SWINE DAYS

"Meat type" hogs, limited feeding and automation in swine production will be featured topics at a series of six Swine Feeders' Days scheduled around Minnesota in January and February.

Sponsored by the University of Minnesota Institute of Agriculture, the events will be at the West Central Experiment Station, Morris, Jan. 9; Southern Experiment Station, Waseca, Jan. 14; Southwestern Experiment Station, Lamberton, Jan. 15; St. Paul Campus, Jan. 16; St. Cloud, Feb. 6 and Rushford, Feb. 11.

At each day-long event, research and extension men from the University and other institutions will bring under scrutiny the major trends in Minnesota's hog industry. They will also report on the University's most recent hog feeding research.

Swine production brings between \$225 million and \$250 million in cash receipts annually to Minnesota farmers. And while the number of farms raising hogs has dropped from over 130,000 in the 1930's to under 80,000 now, the annual hog population in the state has changed little in the past decade, staying near 6 1/2 to 7 million head.

(more)

add 1 -- swine feeders' days

Meat-type production is a trend that started in earnest about a decade ago. Through joint efforts of the livestock marketing and packing industry, research, extension teaching and producer cooperation, hogs have become more streamlined. They go to market carrying less fat and with a higher percentage of lean cuts that consumers have shown they prefer.

While the "big push" on meat-type production maybe isn't as apparent now, the fact is that more hogs now fit the meat-type category than ever.

Limited feeding has gained wide interest in recent years. While some research has shown that it can reduce costs and result in improved pork carcasses, the whole idea is still open to much question, and such questions will be discussed at the Swine Feeders' Days.

Also of high interest is automation in hog production, including confinement, slatted floors and related techniques. Many producers have been wondering about whether to remodel for automation. The answer may vary widely from farm to farm, depending on a number of factors. Some of these factors will be discussed in detail at the Swine Days.

While there is a trend toward specialization in hog production, nearly two-thirds of all Minnesota farmers in the hog business raise all their own little pigs and feed them out to market. About 10 percent are partially specialized, buying some feeder pigs to supplement those grown on the farm.

About 17 percent specialize in either slaughter hog production or in feeder pigs themselves. The remaining 10 percent includes producers with diversified operations--selling some as feeders and feeding the rest out to market weight.

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Immediate release

NEW APPLE, CHRYSANTHEMUMS INTRODUCED BY U

A new bright red apple and two high-mound types of garden chrysanthemums have been developed for northern climates by University of Minnesota horticulturists and will be available to home gardeners for spring planting.

The apple, called Regent, is characterized not only by its solid red color but by its crisp texture, pleasing flavor and good keeping quality. The flavor of the new apple, which resulted from a cross between Daniels Red Duchess and Delicious, is suggestive of Delicious but more sprightly and very juicy. It retains its fine dessert qualities, with little change, from the time it is picked until the end of its storage period in late winter. In addition to high quality for eating fresh, it is good for pie and sauce.

At Excelsior the Regent is one of the last varieties to ripen and is usually picked in mid-October. For this reason, and because it lacks extreme hardiness, it will probably find greatest acceptance in areas where the growing season is similar to that of Excelsior or longer.

Both of the new garden chrysanthemums are early flowering--Goldstrike, named for its prolific display of bright yellow, fully double 2-inch flowers, and Zonta, an apricot-bronze variety. Both also make good flowering pot plants.

Goldstrike reaches a height of 15 to 18 inches and a spread of 24 inches when grown in full sun. Stems are stiff and foliage is a healthy dark green. Blooming usually begins in late August or early September in the Minneapolis-St. Paul area.

Zonta is slightly taller than Goldstrike, reaching a height of 18 to 21 inches and a spread of 24 inches when grown in full sun. The attractive apricot-bronze flowers are fully double and measure 2 1/4 inches in diameter. Blossoming usually begins by early September in the Minneapolis-St. Paul area.

Introduction of Goldstrike and Zonta brings to 44 the number of garden chrysanthemums developed by the University of Minnesota Department of Horticultural Science for northern climates.

More information about the new introductions is available in two University publications: Regent Apple, Miscellaneous Report 54, and Zonta and Goldstrike, Miscellaneous Report 53. The publications may be obtained from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul, Minnesota 55101.

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GARDEN STORE OPERATORS SHORT COURSE SCHEDULED

The fifth annual short course for garden store operators will be held on the University of Minnesota's St. Paul Campus March 3, La Vern A. Freeh, director of agricultural short courses, announced today.

Included on the program will be discussions on handling and selling deciduous and evergreen plants, weed control and use of fertilizers for the home lawn, handling and care of roses. The program this year will deal with management problems as well as current garden information, according to C. G. Hard, extension horticulturist at the University of Minnesota who is program coordinator.

The course is designed to meet everyday problems of individuals operating garden centers, which have become not only places of sale but also garden information centers, Hard said. The Garden Store Operators' Short Course will help point up problems and permit free discussion of possible solutions.

Programs and information on fees for the short course may be obtained from Agricultural Short Courses, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101.

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