

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
January 4, 1965

SPECIAL

Immediate release

COURSE SET ON CARE, MANAGEMENT, SHOWING, DISEASES OF HORSES

An evening course on care, management, showing and diseases of horses will be held this winter and early spring at the College of Veterinary Medicine of the University of Minnesota.

The course is offered through the General Extension Division and may be taken for University credit, according to Dr. George Mather, professor of veterinary medicine and coordinator for the course.

Sessions will be held Thursday evenings, 7:30 to 9:30 p.m. from Jan. 7 through April 22.

Topics include horse and pony breeds, anatomy and physiology, feeding and general care, foot care, training, special care, showing and judging, horsemanship and a variety of health problems relating to horses.

Instructors include staff members of the College of Veterinary Medicine, the Department of Animal Husbandry and a number of guest lecturers from around the state and nation.

The course fee is \$30, and registration will be held during the first meeting of the course Jan. 7 at the Veterinary Clinic Building on the St. Paul Campus.

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Department of Information
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Institute of Agriculture
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St. Paul, Minnesota 55101
January 4, 1965

To all counties

ATT: HOME AGENTS

Immediate release

FOOD SUPPLIES
PLENTIFUL FOR '65

Consumers will be able to heap their market baskets high with all types of foods this year and pay very little more for them than in 1964.

Prices in 1965 may not rise as much as they did last year, when they averaged only about 1 percent above 1963, reports Mary Ryan, extension consumer marketing specialist at the University of Minnesota. Increased production is expected to ease prices for fruits and potatoes. No repeat of price runups is foreseen for coffee and sugar. Continued large consumption of meat is expected to maintain average retail prices near current levels.

Because cereal and bakery products, other highly processed foods as well as food purchased and consumed away from home will undoubtedly continue to rise in price, some increase in the average retail prices of all food is anticipated.

All meats continue in abundant supply, with special emphasis on beef and poultry. Look for specials this winter on beef cuts, chicken and turkey. Supplies of beef for January will be perhaps 10 percent over a year ago, the American Meat Institute estimates. January might be a good time to get reacquainted with economy cuts such as pot roasts and beef shanks after last month's spending.

Pork and lamb supplies may be slightly less than a year ago, but there will be adequate supplies of veal.

Fresh fruits expected to be in good supply throughout the winter are apples, bananas and citrus. Frozen and canned red tart cherries, canned figs and dried prunes are the processed fruits featured by the U. S. Department of Agriculture as plentiful during January.

Canned ripe olives will be especially abundant.

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To all counties
Immediate release

LARGER FARMS TAKE
HEAVY SHARE
OF FARM RECEIPTS

Changes in agriculture are reflected in a variety of ways in recent reports on farm income.

The most recent farm income situation report from the U. S. Department of Agriculture shows a continuing trend toward greater domination of agricultural production by larger farm operators, growing out of the trend toward increasing use of technology and substitution of capital for labor.

Total numbers of farms in the U. S. dropped from slightly over 4 million in 1959 to 3.57 million in 1963.

However, in that same period, the number of farms with cash receipts of \$20,000 and over increased from 325,000 to 384,000 in 1963, for slightly under 11 percent of the total number.

Similarly there was an increase in the number of farms selling between \$10,000 and \$19,999 worth of products. Both of these categories of larger farms are primarily "family farms," based on the criterion that they are operated primarily with family labor.

In lower size categories, numbers of farms declined sharply.

Paul Hasbargen, extension economist at the University of Minnesota, points out some cautions to keep in mind in interpreting figures on income, receipts from farm marketings, and net income.

Larger farms, those selling \$20,000 worth of products and more per year, do not take as big a chunk of the realized net income for the nation, percentagewise as they do of receipts from marketings.

add 1 - larger farms

These larger farms garnered more than 54 percent of the total cash receipts in 1963, but received only 31 percent of the realized net income of all farms. This relationship stems from the fact that these farmers use a higher proportion of purchased inputs relative to their own labor and land.

At the other end of the scale, the small farms share of the net income was larger than their share of cash receipts. The 1.5 million farms with less than \$2,500 in sales accounted for nearly 47 percent of all farms. They received only 4.5 percent of the total cash receipts from farm marketings, but the same farms accounted for over 12 percent of all realized net income in farming.

Similarly, farms with sales ranging between \$2,500 and \$19,999 commanded a larger percent of the realized net income from farming, compared with their cash receipts from marketings.

Hasbargen suggests that one factor behind these differences is the heavy substitution of capital for labor among the larger farms. On the smaller farms, the share of total receipts recorded as realized net income tends to be higher because the smaller farmers are using more labor per unit of output and a lower level of intensification in agriculture. Among the larger farms, less and less labor and more and more capital is used per unit of output.

Furthermore, the smaller farms tend to use less fertilizer and chemical sprays per acre and have a minimum of expenses for buildings and equipment. Buildings on many of these farms have already depreciated nearly their total value, and further depreciation is often not reflected as a significant item of cost.

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To all counties
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IN BRIEF.....

The Crop Production Guide for Minnesota for 1965 is now available through the University of Minnesota Agricultural Extension Service. It gives information on varieties, dates of seeding, fertilizer needs, seeding rates, and weed control. Copies are available through county extension agents and from the Agricultural Bulletin Room, University of Minnesota, St. Paul. Ask for Extension Pamphlet 194.

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Farm Exports from the U. S. to the Western Hemisphere have reached a new peak, according to the U. S. Department of Agriculture. The total value was \$1.15 billion during fiscal 1964, which is 15 percent above a year earlier. The leading commodities exported were wheat and flour, \$238 million; corn, \$113 million; fruits and preparations, \$128 million; vegetables and preparations, \$86 million; soybeans, \$79 million; dairy products, \$53 million; and meat and meat preparations, \$54 million.

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A Series of Swine Days is scheduled for Minnesota in January. Featuring a variety of reports by University of Minnesota representatives and others on nutrition, swine improvement, housing new approaches to swine research, the swine days will be: Southern School and Experiment Station, Waseca, Tuesday, January 12; Southwestern Experiment Station, Lamberton, Wednesday, January 13; West Central School and Experiment Station, Morris, Thursday, January 14. On Tuesday, January 19, a similar program will be held in conjunction with the annual meeting of the Minnesota Swine Producers association at New Ulm.

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To all counties
Immediate release

COUNTY INCOME
FIGURES SUGGEST
NEEDS FOR JOBS

The need for new employment opportunities in rural Minnesota is more widespread than we often think.

Anyone in doubt might scan a list of income levels of rural farm people in different counties.

As a starting point, take counties where the rural farm population has a median family income of under \$3,000 per year. As sociologist George Donohue at the University of Minnesota points out, that level is currently the criterion for being on the "edge of poverty."

There were 38 counties where median family incomes from all sources for rural farm people were reported as under \$3,000 in the 1960 census. These counties were not concentrated in northeastern Minnesota, as might be expected. They were scattered throughout some of the best farming areas of the state.

Starting from the top of the list, and going in alphabetical order, you find Aitkin, Becker, Benton, Big Stone, Cass, Chippewa, Clearwater, Douglas, Grant, Hubbard, Jackson, Kanabec, Kandiyohi, Lac qui Parle, Lincoln and Lyon counties.

These counties are scattered through north central, northwest, west central, and southwest parts of Minnesota. The areas not represented by the 38 counties include the southeastern corner and the extreme northeastern counties such as Lake, St. Louis, and Carlton.

Such figures point to a general problem of employment opportunity in rural Minnesota. Donohue suggests that \$3,000 is unlikely to enable many farm families to compete in the technological race for efficiency.

• add 1 - county income

Projections on returns to farm investments for the next couple of decades point to a continued low level of return on capital investment in agriculture. Land in smaller units will in many cases be consolidated with larger ones. Many families will continue to see larger size as necessary for satisfactory incomes in commercial agriculture.

The outcome, then, will be a continued exodus from farming. And Donohue points out that unless alternatives are found for persons displaced from farming, further outmigration and population decline can be expected in these rural areas.

Would a general price increase reverse this population decline? Donohue says that if the economy were to become more prosperous than expected in the next decade, and if returns to agriculture increased, we might have even more investment in capital inputs substituting for labor in farming. Furthermore, a more prosperous general economy would mean even more "pull" toward metropolitan and urban areas. The overall result would probably be an even more rapid depopulation of rural areas.

Further farm consolidation may thus be necessary. And Donohue adds that rural people may also find it necessary to consolidate services of the rural community. While the "14-mile community" still exists in much of Minnesota's agricultural area, Donohue says the 30-minute community may be more functional--and more realistic.

Consolidating institutional services, such as education, religion and economic and political services would mean fewer communities. A declining population base, with relatively low level of income, does not give a tax base adequate for an ever-expanding increase in public services.

"As the cost of these services is shifted from the local tax sources to state and federal sources," Donohue says, "conditions governing the nature and use of these funds will in all probability be in terms of the interest of the state and nation as a whole, rather than primarily in terms of needs of local residents.

"Rural communities based primarily upon agriculture, with little or no prospect for development of nonfarm activities, do not appear to be in a position to provide the necessary funds for public services comparable to those of more densely populated industrialized communities."

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Immediate release

4-H GIRLS WIN TRIPS TO NATIONAL POULTRY CONFERENCE

Two Minnesota 4-H girls will receive trips to the national Junior Poultry Fact Finding Conference in Kansas City, Mo., Feb. 11-14 for their outstanding, long-time records in the 4-H poultry project.

Margaret Swanson, 17, Hastings, and Cheryl Barten, 15, Belle Plaine, have won the trips which are sponsored each year by the Minnesota Poultry, Butter and Egg Association.

Margaret's attitude toward turkeys has changed a good deal since turkey gobblers used to frighten her as a little girl. Feeding the turkeys, which "started out being a terrible job, turned into a wonderful experience in business and management," she confesses. She now cares for 200 turkeys of her own and, in addition, helps feed the family flock of 4,500 before and after school. During the summer she goes with her father on his route, delivering turkeys to hotels and restaurants in the Twin Cities and in Hastings.

(more)

add 1 -- poultry conference

Her interest in turkeys carries over into her foods project. In her demonstrations she stresses using turkey in many different ways. Last year she won a trip to the State Fair with her demonstration on turkey casserole.

Margaret has received two Dakota County championships on her market pen of turkeys. Her turkeys have also placed third at the Minnesota State Fair. She has taken the 4-H poultry project for eight years.

The Dakota County girl is enrolled as a freshman in home economics at the University of Minnesota.

Fifteen-year-old Cheryl has taken the poultry project each of the seven years she has been a 4-H member. The family flock of chickens which she helps care for has grown from 200 to 1,000 pullets. In 1961 she won a trip to the State Fair on her demonstration, "Gertrude Goes to the Fair." With the help of Gertrude, her pet pullet, she showed how to get a pen of pullets ready for the fair. Her demonstration won a championship rating at the State Fair--and the same year she also won a championship on the leghorns she had taken to the fair.

Cheryl says she has learned a great deal about producing quality eggs since the family joined the quality egg program three years ago.

Next to chickens, the Scott County girl likes ducks. She is building a fund for college with the money she gets from selling her ducks and their feathers.

Cheryl is president of the Helping Hand 4-H Club.

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SWINE DAYS SET BY UM IN JANUARY

Minnesota's swine producers will hear a variety of reports on nutrition, swine improvement programs, housing systems, and new approaches to swine research during a series of Swine Days around the state in January.

Research and Extension staff members in animal husbandry at the University of Minnesota's St. Paul Campus, staff members at branch experiment stations, and persons from other states will be featured speakers.

The Swine Days will be at the Southern School and Experiment Station, Waseca, Jan. 12; Southwestern Experiment Station, Lamberton, Jan. 13; West Central School and Experiment Station, Morris, Jan. 14.

On Tuesday, Jan. 19, a similar program will be held in conjunction with the annual meeting of the Minnesota Swine Producers Association at New Ulm.

The morning session at each of the three events at branch stations will feature a roundup of recent research reports on swine production. These reports will be given by R. J. Meade, professor of animal husbandry, and staff members from the stations.

L. E. Hanson, head of the animal husbandry department at the St. Paul Campus, will address the Waseca and Morris sessions, explaining the University's approach to a coordinated swine research program.

The Waseca session will also feature a panel discussion on hog housing systems, with the panel moderated by K. P. Miller, Waseca station staff member.

A special feature of the Lamberton event will be a discussion on the nitrate problem of swine by R. W. Seerley, animal scientist from South Dakota State University.

The Lamberton and Morris Days will both feature discussions of factors affecting profit potential and feeding systems for very young pigs.

The program at New Ulm will include a discussion of the meat-type hog, swine research for the future, and feeding values of various types of corn. Professor Seerley will demonstrate and discuss the "Sonoray" device for estimating muscle in live hogs.

An afternoon speaker at the New Ulm day will be James Peterson, Vinton, Iowa, president of the National Swine Growers Council.

Also speaking at the events will be C. J. Christians and R. L. Arthaud, extension animal husbandmen at the University.

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Immediate release

CROP IMPROVEMENT DAY JAN. 13 AT ST. PAUL CAMPUS

The annual Crop Improvement Day will be Wednesday, Jan. 13, on the St. Paul Campus of the University of Minnesota.

The event will feature the annual business meeting of the Minnesota Crop Improvement Association in the morning and a roundup of reports on field crop varieties, fertility research, chemical weed control, crop diseases, and insect pests on crops.

Speakers will include three extension specialists--agronomist Harley J. Ctto, soils specialist Curtis Overdahl and entomologist John Lofgren--researcher Richard Behrens and Milton F. Kernkamp, head of the Department of Plant Pathology and Physiology.

Sherwood C. Berg, dean of the University's Institute of Agriculture, will address an evening banquet session at Midland Hills Country Club.

The event is sponsored by Minnesota Crop Improvement Association and Crop Quality Council in cooperation with the University's Institute of Agriculture.

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*For release *
*Thursday, Jan. 7 *

ROOT ROT DISEASE OF SOYBEANS IDENTIFIED IN MINNESOTA

A well-known and potentially serious root rot disease of soybeans has been identified for the first time in Minnesota, but no widespread occurrence of the disease is expected in the state during 1965.

The disease is Phytophthora root rot, and was recently identified on soybean plants grown on soil taken from fields on two farms in south central Minnesota, according to Herbert Johnson, extension plant pathologist at the University of Minnesota.

Three of the newer soybean varieties are resistant to the disease, but seed of these varieties is in short supply for 1965. These resistant varieties are Harosoy 63, Chippewa 64, and Lindarin 63.

Johnson points out that Phytophthora generally occurs on low ground and is most severe during wet conditions. While the disease may cause extensive damage in a given field, the effect generally tends to be spotty.

(more)

add 1 -- root rot disease

Johnson adds that other diseases which kill soybean plants are present every year and have been in the state a long time.

Phytophthora was first found in southern Ontario and Ohio in the middle 1950's, and has since spread west through Indiana, Illinois, and parts of Iowa.

In Minnesota, the work leading to the discovery of Phytophthora was directed by Bill Kennedy, soybean pathologist in the Department of Plant Pathology and Physiology at the University. Proof of the presence of the disease required isolation of the fungus from diseased soybean plants, followed by inoculation of healthy plants.

Kennedy used the susceptible Harosoy and Chippewa varieties, and the resistant Harosoy 63 and Chippewa 64 varieties. Results were striking. When planted on soil from the infested field, or inoculated with the fungus itself, plants of the susceptible varieties all died in the seedling stage. Plants of the resistant varieties remained healthy and unaffected.

Johnson says it is not known how the fungus happened to occur where it did. Known locations of the disease previously were at least 100 miles away and in a different state.

He adds that the fortunate aspect of this problem is that the disease was anticipated. Breeding of resistant varieties started soon after the first identification of Phytophthora in other regions. The resistant varieties Lindarin 63, Harosoy 63 and Chippewa 64 are a direct result of this foresight.

Johnson says, all things considered, no widespread attack of Phytophthora is expected in Minnesota during the coming year.

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65-4-pjt

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Immediate release

FOREST PRODUCTS RESEARCH LABORATORY NEARS COMPLETION

The University of Minnesota School of Forestry will begin teaching and research this winter in the second unit of its Forest Products Laboratory, which is nearing completion.

The \$250,000 unit is adjacent to the first unit of the Forestry Research Laboratory, which was completed in 1961.

According to F. H. Kaufert, director of the School, the new research and laboratory unit will make possible studies on new and improved forest products and basic research on Minnesota timber species. It will provide a broader range of graduate training, and will make it possible to assist the forest products industries on special problems.

The one story, laminated post and beam structure, with plywood paneling and other wood products used extensively in its construction, contains equipment for research and instruction on pulp, paper and other fiber products, plywood, lumber, wood preservation, and wood chemistry.

It will be used in teaching undergraduate and graduate students and for a number of short courses for people in the forest products industry.

Research in the new unit will include extensive efforts on a variety of fiber products from such species as aspen. This will include, for example, studies of where aspen might be used for existing products, and on new uses for which aspen might be appropriate.

Basic research in the new unit will be directed toward learning more about native species. This will include research on the wood itself, such as wood chemistry and further studies of penetration of liquid in wood.

Seven staff people in the School of Forestry will be located in the new unit. They include: R. L. Hossfeld, professor; John Haygreen, associate professor; John Neetzel, research associate; and four instructors--Robert Thompson, Robert Erickson, Paul Kersavage, and Roland Gertjeansen. ### 65-6-pjt

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Immediate release

WEED, SEED INSPECTORS' SHORT COURSE JAN. 11-14

The 24th annual Weed and Seed Inspectors' Short Course will be conducted Jan. 11-14 on the St. Paul Campus of the University of Minnesota.

Registration will begin at 8:30 a.m., Jan. 11 in the Campus Student Center. The Thursday session will be open to the public. Registration fee for the entire course is \$6, and \$3 for the Thursday session.

"The course is held each year to bring weed and seed inspectors in the state up-to-date on recent changes in weed and seed law regulations, and to familiarize them with the latest in weed control practices," according to Richard Behrens, professor of agronomy and plant genetics.

Behrens and Sig Bjerken, supervisor of the Section of Weed Control, State Department of Agriculture, are co-chairman for the short course.

Conducted by the Department of Agricultural Short Courses, the course is sponsored by the Agricultural Extension Service, Agricultural Experiment Station and Minnesota Department of Agriculture.

Speakers during the four-day program will come from the University of Minnesota, Iowa State University, U. S. Department of Agriculture, Minnesota Department of Agriculture, Food and Drug Administration and from private industry.

The Minnesota County Weed and Seed Inspectors Association will hold its business meeting at the afternoon session on Tuesday, Jan. 12.

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Immediate release

WINNERS NAMED IN EXTRA CORN PROFIT CONTEST

Three farmers in south central Minnesota have been named top winners in the 1964 Minnesota Extra Profit Corn Contest, sponsored jointly by the University of Minnesota Agricultural Extension Service and The Farmer magazine.

They are John E. Selland, Madelia, Blue Earth County, and Rudolph Rieck, Springfield, and Douglas Bandemer, Sleepy Eye, both of Brown County.

Contest awards are based on highest net profit per acre. In addition to the three state-wide winners, awards were also given to three contestants in each of four zones.

Selland won first place in the contest with a three acre high-investment plot which yielded 165 bushels per acre and brought a net profit of \$92.05 per acre. In the remainder of the 30-acre field, his conventional corn made 80-bushels per acre with a \$22.70 profit per acre.

Contestants had two sections of a field, each operated at different investment levels. In Selland's case, for example, the main difference between the two plots was that the fertilizer rate on the low investment portion was half that of the fertilizer rate on the high investment portion.

Rieck won second place by netting \$91.10 per acre from a 162-bushel yield per acre in his three-acre test plot, and \$23.15 per acre from a 66-bushel yield on his conventional corn in the remainder of a 30-acre field.

(more)

add 1 -- corn contest

Bandemer won third place. He netted \$78.65 per acre from a 153-bushel yield per acre in his high investment acres, and \$67.05 per acre from 129-bushels per acre in the remainder of a 35-acre tract.

Drought conditions in many areas of the state last summer reduced the number of contest finalists to around 200 from the over 400 entries received last May, according to Curtis Cverdahl, University extension soils specialist and contest supervisor.

However, Cverdahl says, many of the entry records clearly point out the value of modern corn growing practices, including wise fertilizer usage under drought stress conditions.

Zone winners for conventional and high test plots are:

Zone 1--First, Selland; Second, Willard F. Brahs, Le Sueur County, high investment 136-bu., net profit \$74.45; conventional, 133-bu., \$73.35 net profit. Third, John J. and Richard Selland, Blue Earth County, high test 143-bu., \$73.35; conventional, 89-bu., \$30.35.

Zone 2--First, Rieck. Second, Bandemer. Third, Keith Christenson, Redwood County, high test 132-bu., \$77.89; conventional, 103-bu., \$55.84.

Zone 3--First, John Boulton, Lincoln County, high test 123-bu., \$64.75; conventional, 122-bu., \$69.62. Second, Louis Caron, Lyon County, high test 118-bu., \$60.60; conventional 112-bu., \$55.50. Third, George Ziemke, Murray County, high test 102 bu., \$53.42; conventional, 93-bu., \$51.10.

Zone 4--First, Berger Nelson, Isanti County, high test 71-bu., \$16.20; conventional 83-bu., \$31.15. Second, Ernest Kohler, Anoka County, high test 79-bu., \$29.75; conventional 71-bu., \$22.95. Third, Gerald Marstaeller, Chisago County, high test 115-bu., \$29.70; conventional 78-bu., \$3.25 net profit.

The 1964 zone and state-wide contest winners will be honored at an awards banquet Jan. 12 at the Student Center on the University's St. Paul Campus.

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Immediate release

KNOW YOUR BEST BUYS IN FRESH FRUITS AND VEGETABLES

Poultry and beef will be among the foods that will be especially plentiful and attractively priced during the early months of 1965, according to Mary Ryan, extension consumer marketing specialist at the University of Minnesota.

Consumers can look for specials this winter on beef cuts, chicken and turkey. This week, for example, many stores are featuring chuck roasts and chuck steaks and broiler-fryers, with prices for whole birds less per pound than for cut-up chicken.

Pork and lamb supplies may be slightly less than a year ago, but there will be adequate supplies of veal. Beef is more abundant than it was last January.

Fresh fruits for shoppers to look for during January include apples, oranges, grapefruit, bananas and Emperor grapes. Supplies of fresh oranges and grapefruit are expected to show a sharp increase in the first half of 1965 because of the rapid recovery of trees from freeze damage.

Small-sized Florida and Texas grapefruit are currently excellent buys, Miss Ryan says. Prices for navel oranges will vary according to their size. For top quality grapefruit and oranges, she suggests choosing fruit that is firm and heavy for its size.

Frozen and canned red tart cherries, dried prunes and canned figs are the processed fruits listed as January plentifuls by the U. S. Department of Agriculture. A record-large red tart cherry crop will assure homemakers of an abundance of both frozen and canned cherries for pies and other desserts. The pack of frozen red tart cherries was especially large this past year. The current supply of canned figs is 80 percent larger than the quantity marketed last year. Look for prices on prunes to be more attractive as an above-average crop appears on the market.

Canned ripe olives are particularly plentiful for the current season.

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Immediate release

UM TO CONDUCT SHORT COURSE FOR CHEMICAL SPRAYERS

A special short course for field crop sprayers will be conducted Wednesday and Thursday (Jan. 13-14) at the University of Minnesota, St. Paul Campus.

Topics to be covered include such items as meeting legal responsibility, estimating and pricing crop spraying jobs, losses caused by weeds, timing weed control practices, efficient application of fungicides, spray fungicides for plant disease and grasshopper control.

Instructors for the two-day course will come from the University of Minnesota, the U. S. and Minnesota Departments of Agriculture, the Minnesota Agricultural Chemicals Association, the Food and Drug Administration and from private industry.

The course will begin with registration at 8:15 a.m. in the Campus Student Center. The fee is \$5. The Thursday session will be open to the general public with a fee of \$3.

Conducted by the Department of Agricultural Short Courses, the course is sponsored by the Agricultural Experiment Station, the Agricultural Extension Service, the Minnesota Department of Agriculture and the Minnesota Agricultural Chemicals Association.

Co-chairmen are Richard Behrens, professor of agronomy and plant genetics at the University, and K. A. Boss, president of the Minnesota Agricultural Chemicals Association.

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BLANDIN FOUNDATION MAKES GRANT TO UM SCHOOL OF FORESTRY

The Charles K. Blandin Foundation of Grand Rapids, Minn., has made its tenth grant of \$5,000 to the University of Minnesota School of Forestry in support of its forest genetics and tree improvement program.

The grant is announced by C. H. Schacker, executive director, Charles K. Blandin Foundation, and F. H. Kaufert, director of the School of Forestry.

The School's research in forest genetics and tree improvement is under the direction of Prof. Scott S. Pauley, who initiated the program in 1955. A considerable part of this research is conducted at the North Central School and Experiment Station and the Blandin Company's nursery and planting area, both located near Grand Rapids.

Studies in the forest genetics and tree improvement area are designed to accumulate information on genetic diversity in native and exotic tree species and isolate genetically improved lines for planting in Minnesota. Major emphasis has been placed on the native aspens, spruces, and jack pine, Minnesota's most important pulpwood species.

Most studies carried on under the forest genetics project are conducted by graduate student assistants as part of their training program. To date 12 students have been partially supported on research programs by Blandin Foundation funds. In addition, 14 graduate students have benefited through participation in Blandin Foundation projects but have received no direct financial support from the Foundation.

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To all counties
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CERTIFIED SEED
VALUE SHOWN
FOR ALFALFA

Certified seed assures Minnesota farmers of getting known performance from alfalfa seed they sow.

This principle has been illustrated again by results from a bacterial wilt study reported by the University of Minnesota, and the U. S. Department of Agriculture, by L. J. Elling, agronomist, and F. I. Frosheiser, plant pathologist.

Elling and Frosheiser tested six uncertified and three certified lots of Vernal alfalfa seed being sold in Minnesota.

The certified seed lots performed as expected for Vernal alfalfa. However, four of the uncertified seed lots had two-thirds less bacterial wilt resistant plants than the certified lots.

Two of the uncertified seed lots did not differ from the certified group. These two seed lots were grown in an area where large amounts of certified seed are produced and may have been rejected for certification on the basis of isolation, mixtures, or other certification requirements.

Elling and Frosheiser say these results further emphasize the value of using seed of known performance. Use of certified seed is the best assurance of getting known performance expected of the variety in the seed the farmer purchases.

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IN BRIEF.....

Hay supplies in Minnesota, generally thought to be fairly adequate a few weeks ago may start running short in coming weeks. A check at the University of Minnesota by extension agronomist Jim Justin and several county agents, suggests that while hay supplies are holding up now, there will be a shortage in many counties before spring pasture time. Some areas are feeling the pinch already. Three counties reported a shortage of 10,000 tons in December. Others that earlier reported hay surpluses now report that hay is moving quite rapidly. Justin advises farmers with short hay supplies to make plans now for buying more. Later on, it may be more difficult to find and higher in price.

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The residue problem, as with other insects, is limiting the choice of effective grasshopper control materials. John Lofgren, extension entomologist at the University of Minnesota, says it is inadvisable to use aldrin, dieldrin or toxaphene for road side spraying where there is any chance of drift onto pasture or forage crops. Carbaryl (Sevin), Diazinon or malathion will do an effective job on young hoppers, but the job must be done when they are small. Full grown grasshoppers are harder to kill and are dispersed over a wide area.

* * * *

World agricultural production in 1964-65 is expected to increase about 1 percent over the previous year, according to the U. S. Department of Agriculture. This is a smaller gain than in each of the previous 2 years and is less than the growth in world population and economic activity. The harvests of 1964 set world records for wheat, barley, sugar beets, sugarcane, soybeans, peanuts, cocoa beans, cotton, tobacco, and tea. Rice may also set a harvest record. But harvests were smaller than a year earlier for coffee, corn, oats, potatoes, beans, olive oil, flaxseed, and rapeseed.

* * * *

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
January 11, 1965

To all counties

4-H NEWS

Note: (Use if appropriate in any way you see fit--for columns, announcements, etc. You may want to contact the local chairman before using this as a news story. Schedule attached)

TRAFFIC SAFETY WORKSHOPS
TO BE HELD IN FEBRUARY

Of interest to adults and youth in _____ County is a traffic safety workshop to be held in _____ in _____ February _____.
(town) (bldg.) (date)

The event is open to the public. Organizations are urged to send representatives to the sessions.

The workshop is one of 12 scheduled throughout the state in February in an effort to combat the rising toll of death on Minnesota highways. The state sponsors of the traffic safety workshops include the Safety Division of the Minnesota Highway Department, the Veterans of Foreign Wars, the American Legion, the Minnesota Congress of Parents and Teachers, the Minnesota State Auto Club, Minnesota 4-H Clubs, Future Farmers of America and many other organizations and agencies. Local sponsor is _____ is serving as chairman.

The program will begin at 5:00 p.m. followed by a dinner at 6:00 p.m. Reservations for the dinner should be made -- (give details). Charge for the dinner is \$2. The dinner program is scheduled for 6:30 p.m. Individuals wishing to attend the dinner program and the workshop sessions need not attend the dinner unless they wish.

Four special workshops will begin at 7:00 p.m. -- one for youth, another for women, an emergency session and a community session.

The youth session will open with an enactment of a scene by the Student Council of a traffic violator being brought to juvenile court. Members of FFA will describe their chapter activities for traffic safety and 4-H'ers will discuss safety aspects of the automotive project. The film, "The Paducah Story" will be shown.

"Preparing for the Prom" will be the final number on the youth program, presented by Student Council members.

add 1 - traffic safety

Driver improvement will be highlighted at the women's seminar. Protecting the scene of an accident will be the subject of the emergency session, at which safety education officers of the Minnesota Highway Patrol will make the presentation. The community session, devoted to working for safety will present the scooter problem and a discussion of community safety programs.

-jbn-

1965 TRAFFIC SAFETY WORKSHOPS

The 1965 Traffic Safety Workshops will be held during February in these 12 cities:

- February 1 Duluth, Denfield High School, Harry Brown, Chairman; Safety Bureau, Chamber of Commerce, sponsor.
- February 2 Virginia, Miners Memorial Auditorium, Quinto Aluni, Chairman; Virginia Safety Council, sponsor.
- February 3 Wadena, Pine Cove Inn, Don Brown, Chairman; Chamber of Commerce, sponsor.
- February 4 St. Cloud, Cathedral High School, Howard K. Walton, Chairman; St. Cloud Safety Council, Sponsor.
- February 8 Moorhead, North Junior High School, Fred Polka, Chairman; Clay County Safety Council, sponsor.
- February 9 Marshall, Central Catholic High School, Ed Marcotte, Chairman; Marshall Safety Council, sponsor.
- February 10 Fairmont, High School, Sgt. Major Jones, Chairman; Fairmont Safety Council, sponsor.
- February 11 New Ulm, High School, Kenneth Schroeder, Chairman; New Ulm Safety Council, sponsor.
- February 15 Austin, St. Edward's Catholic School, Mrs. Luella Galstad, Chairman; Austin-Mower County Safety Council, sponsor.
- February 16 Winona, Central Junior High School, Sgt. George McGuire, Chairman; Winona Safety Council, sponsor.
- February 17 South St. Paul, High School, George W. Crim, Chairman; South St. Paul Safety Council, sponsor.
- February 18 Golden Valley, High School, John Knight, Chairman; Golden Valley Safety Council, sponsor.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
January 11, 1965

To all counties
4-H NEWS
Immediate release

4-H'ERS BUILD
SAFETY-CONSCIOUS
COMMUNITIES

About 110,000 people were killed, disabled, or injured to some degree in all accidents in Minnesota last year. Farm fires destroyed property valued at \$3,000,000 including 180 homes and 283 barns.

Believing that accident prevention is everyone's responsibility, 4-H clubs in Minnesota are taking an active part in the safety project.

Accident prevention in a safety-conscious community is one objective of 4-H clubs. 4-H'ers become better citizens in the home and community by helping to protect others and participating in national safety campaigns, according to county agent _____.

Minnesota 4-H clubs continue to contribute to their communities with such safety activities as improving visibility at blind crossroads, participating in civil defense programs, reflectorizing machinery, displaying safety posters or conducting home fire drills. Members encourage safety practices through talks, demonstrations and campaigns.

The 4-H safety project is divided into beginner, junior and advanced phases.

The beginner studies safety in the home, farm, traffic and recreational areas. Helping with club safety booths, floats or exhibits becomes the 4-H'ers responsibility. Demonstrations and illustrated talks are given in public on some phase of safety or fire prevention.

Juniors and advanced 4-H'ers select safety work in the home, on the farm or in traffic, recreational and play activities. The older members might do a community service by putting up warning flags or stop-and-yield signs.

add 1 - safety

Program ideas for 4-H meetings include safety surveys, reporting accidents, showing safety films, safety exhibits or window displays.

The 4-H safety award program is sponsored by General Motors. Four outstanding members in the county receive gold-filled medals of honor. An outstanding local club receives a \$10 check. The state winner receives an all-expense paid trip to National 4-H Club Congress in Chicago. Eight \$500 college scholarships are presented nationally to a blue award group.

-smk-

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
January 11, 1965

To all counties
ATT: HOME AGENTS
Immediate release

MANY ADVANCES IN
HOME APPLIANCES

Improvements made in home appliances will be among reasons families will add new equipment or replace the old in 1965, according to Mary Muller, extension home improvement specialist at the University of Minnesota.

Production of household goods is at an all-time high and consumer buying of home equipment is expected to continue to be strong this year.

Here are some of the new developments to look for in home equipment, as reported by Ethel D. Hoover of the U. S. Department of Labor at the recent Agricultural Outlook Conference in Washington, D. C.:

. Kitchen ranges. Emphasis is now on free-standing ranges that look like built-ins. Most of the 1965 lines of ranges contain at least one model with the high oven and recessed cooking surface.

Placement of burners in an L-shaped design to eliminate reaching over one burner to use another is featured in some lines.

Slow baking is also offered in some 1965 models, with the oven automatically changing from high to very low heat to achieve slow cooking or warming temperatures.

Easy oven cleaning is one of the advances welcomed by women. Most lines this year include models equipped with pull-out liners or with super-heat devices for quick oven cleaning.

. Refrigerators and refrigerator-freezers. Because of the large number of families owning separate freezers, many "all" refrigerator models are appearing--only 5 percent freezer, with just enough room for ice trays and half a gallon of ice cream.

-more-

add 1 - advances in home appliances

Two major developments are use of new types of insulation, chiefly urethane foam, which allows for increased interior capacity without increasing exterior dimensions, and appearance of no-frost types, replacing other types of defrosting.

A new break-front refrigerator has been introduced by one company that has the refrigerator on top and a work counter above a sizeable roll-out freezer.

. Laundry equipment. Emphasis is on size. The 1965 models include 14- and 15-pound washers. At present, there is no yardstick to back up the capacity claims. The question is by what standard capacity is measured -- by dry wash poundage, by water use in gallonage or by some other means.

. Vacuum cleaners. These are becoming more specialized, as it grows more common for the housewife to have at least two vacuum cleaners. The popular canister type is becoming increasingly compact, even to internal caddies for attachments. Newest type cleaners are the light-weight uprights weighing between 5 and 7 pounds and combining the brush action of the upright with the suction and convenience of the electronic broom-type.

. Small appliances. About 400 different cordless items are being produced currently. Continued research in the rise of energy cells, solar cells and other power devices will undoubtedly result in freeing additional equipment from the trailing cord. Some of the cordless items have advantages; others are of limited usefulness.

. Television. Improvements in picture clarity, color purity, sound fidelity and automatic features continue to be made. Color TV is expected to be the big growth area. Present predictions are that in another two years all color sets will have square tubes in 25-inch, 23-inch and 19-inch sizes instead of the current 21-inch round tube.

Another trend is that toward miniaturization. Domestic manufacturers are producing 11-inch and 10-inch lightweight sets selling in the \$100 range. Smaller size sets are expected to be available in the popular price range in the next year, with the possibility of 4- or 5-inch screens.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
January 11, 1965

To all counties
Immediate release

EGG PRICE TRENDS
ARE REVIEWED
BY UM ECONOMISTS

Those low egg prices paid to producers these days are partly a result of the peculiar way supply and demand works in the egg business.

The supply side of the egg market has elasticity with a one-way stretch.

Agricultural economists Clark R. Burbee and Carroll V. Hess at the University of Minnesota explain it this way.

If there is a sudden jump in egg demand, poultrymen respond by producing more eggs. But they find little improvement in egg prices.

If, on the other hand, demand goes down, the same poultrymen make only minor cutbacks in production. This time, egg prices change sharply--downward.

This peculiar feature of the egg industry, with supply being elastic on the expansion cycle but highly inelastic on the contraction cycle, helps explain the recent trends in egg prices.

Burbee and Hess point that egg prices are extremely sensitive to small changes in supply. In 1963, prices paid in Minnesota ranged from a low of under 23 cents per dozen in June to a high of 33 cents per dozen in September.

Similarly, prices on the New York market ranged from under 30 cents in May to over 41 cents in September. Yet, output varied only between 13.6 and 15.9 million cases a month during that year period. Thus, price fluctuation is greater than changes in supply.

This difference in supply and price fluctuation, the economists say, stems from an almost constant demand for eggs regardless of price over a short time period. Eggs have no substitutes. People use only slightly fewer of them at high than at low prices. This is a classic example of "inelastic demand."

add 1 - egg price trends

Such an inelastic demand situation illustrates a need for keeping the volume of eggs moving into the markets at a proper balance with demand, to avoid serious declines in egg prices which accompany increases in market volume.

Egg prices in the U. S. dropped from a 1950-54 average of 42.2 cents to a low of 31.1 cents per dozen in 1959. This is a price drop of 29 percent, but was accompanied by only 7 percent increase in market volume.

The almost steady decline in prices to egg producers, the economists say, is not simply a result of increased output growing out of greater efficiency and lower costs.

Contraction in demand is also a major factor. Consumers have been replacing eggs with other foods, and because of that supply inelasticity, the price drop has not always been accompanied by a comparable drop in production.

Egg output in the U. S. increased 7 percent in the last decade while population increased 16 percent. Egg consumption per capita in that period fell from an annual figure of 376 to 321, and present projections are for this consumption to level off at about 320.

Eggs have a truly nationwide market, the economists point out. The final destination of eggs from a surplus area such as Minnesota depends on existing price relationships in the various markets.

Buyers and sellers of eggs in one market are unable to determine egg prices independently of prices in other markets. Dealers throughout the country rely on prices established in one major market as a guide or base for determining local prices.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
January 12, 1965

Immediate release

MINNESOTA VEGETABLE GROWERS HAVE ANNUAL MEETING

The Minnesota Vegetable Growers' Association will hold its 10th annual meeting and institute in Albert Lea Saturday, Jan. 16, at the Skyline Supper Club at the Junction of Highways 16-69 and 13 West.

The meeting is open to the public but the program is planned especially for commercial growers, according to O. C. Turnquist, secretary-treasurer of the association and extension horticulturist at the University of Minnesota. The Southern Minnesota Vegetable Growers' Association is co-sponsor of this year's institute.

Registration will begin at 9:30 a.m. Albert Reynen, Hollandale, president of the Southern Minnesota Vegetable Growers' Association, will open the program at 10:20 a.m. with a welcome to the group. Other speakers in the morning will be Donald B. White, associate professor of horticultural science, University of Minnesota, on sod in the vegetable rotation, and Robert D. Munson, agronomist, American Potash Institute, St. Paul, on problems associated with potato and vegetable fertilization.

At the afternoon session William F. Hueg, Jr., assistant director of the University of Minnesota Agricultural Experiment Station, will give his impressions of a trip behind the Iron Curtain. L. K. Cutkomp, professor of entomology, fisheries and wildlife, will report on research on insecticide residues in soils, and John A. Lofgren, extension entomologist, University of Minnesota, will discuss toxicity hazards and safe use of pesticides.

The annual business meeting of the Minnesota Vegetable Growers' Association is scheduled for 3 p.m. Fred Gerten, president, will chair the session.

M. Graham Clark, president of the College of the School of the Ozarks, Point Lookout, Mo., is the featured speaker at the banquet at 6:30 p.m. in First Lutheran Church.

Commercial exhibits of new chemicals and equipment will be on display during the one-day meeting.

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65-13-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
January 12, 1965

Immediate release

CONSUMERS GIVEN GUIDES IN BUYING FRUITS, VEGETABLES

Improved methods in harvesting, merchandising, refrigeration and transportation have made a wide variety of fresh fruits and vegetables available to the average consumer the year around. Yet it's still up to the individual shopper to make selections wisely to get the best buys.

A newly revised University of Minnesota Agricultural Extension Service publication, Extension Folder 197, Know the Best Buys in Fruits and Vegetables, gives quality guides for consumers to keep in mind in selecting specific fruits and vegetables. The publication is available from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101.

Grace Brill, extension nutritionist at the University of Minnesota, and author of the publication, also has these tips for shoppers:

- . Select fresh fruits and vegetables that fit your menu needs for quality and ripeness. For example, you will want top quality apples for eating raw, but a lower quality may be satisfactory for apple crisp.
- . Buy according to the size and needs of your family. Don't buy larger quantities than you can refrigerate and use without waste.
- . Consider fruits and vegetables grown in your locality, since they are usually lower in price and often superior in flavor.
- . Consider so-called plentiful foods. Foods are usually cheaper when abundant.
- . Be sure to check quality when prices are low. Fruits or vegetables may be low in price because they are overripe or have begun to deteriorate. On the other hand, specials on these products can be excellent buys if a store has a plentiful supply.
- . Avoid produce with blemishes or defects that may affect edible quality. Sometimes, though, blemishes such as russeting on grapefruit are merely on the surface and do not affect eating quality.
- . Consider nutritional quality. Fruits and vegetables supply nearly all the vitamin C and over half the vitamin A we need. However, some are higher in these vitamins than others.

. Compare the costs of fresh, canned or frozen fruits and vegetables. Consider also such factors as time of preparation, nutritive value, food preferences and storage.

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65-12-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
January 12, 1965

Immediate release

SEMINARS ON PUBLIC AFFAIRS SCHEDULED IN THREE AREAS

Community leaders in three areas of Minnesota will attend seminars on "The American Economy in Transition" this winter, according to Luther J. Pickrel, director of the University of Minnesota Agricultural Extension Service.

The seminars, to be held at Windom, Fergus Falls and Thief River Falls, are designed to bring together community leaders in agriculture, business, industry, professions and civic affairs to study and discuss problems facing the U. S. and local communities.

The seminars will be coordinated by Arley D. Waldo, extension economist, in cooperation with county extension agents and local groups.

Dates for the all-day seminars are Windom--Jan. 20 and 27 and Feb. 5, 19 and 25; Thief River Falls--Feb. 10 and 17 and March 3, 10 and 18; Fergus Falls--Feb. 11 and 18 and March 4, 11, and 17.

(more)

add 1 -- seminars

Specific topics at the different seminars include process and stages of economic growth; growth, migration and employment; changing role of government; educational needs and priorities; agricultural development in an industrial economy; public problems and alternatives in American agriculture; agricultural trade and foreign markets for farm products; political power and government in nonmetropolitan areas; social and economic change in nonmetropolitan areas; state and local public finance; and the challenge of automation.

Participants for the Windom seminar are being invited from a 12-county area of southwestern Minnesota. The seminar at Thief River Falls covers a six-county area of northwestern Minnesota and the one at Fergus Falls includes Becker, Otter Tail and Wilkin counties.

Speakers for the seminars include: Thomas L. Anding, University staff member and urban development director for the Upper Midwest Research and Development Council; David H. Boyne, agricultural economist at Michigan State University; Ralph Fjelstad, professor of government at Carleton College, Northfield; Eber Eldridge, extension economist at Iowa State University; Norbert Dorow, extension economist at North Dakota State University.

In addition to Waldo, speakers will also include six University of Minnesota faculty members--Charles H. Backstrom, political scientist; John R. Borchert, geographer; W. Keith Bryant, Dale C. Dahl, and Willard W. Cochrane, agricultural economists; and George A. Donohue, sociologist.

Persons wishing for more information may contact their county extension offices.

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65-11-pjt

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
January 13, 1965

*For release at 9 p.m., *
*Wed., Jan. 13 *

TWO UNIVERSITY STAFF MEMBERS HONORED

Two staff members of the University of Minnesota's Institute of Agriculture were honored this evening by the University and the Minnesota Crop Improvement Association.

Presented with honorary Premier Seed Grower awards were William F. Hueg, Jr., assistant director of the Institute's Agricultural Experiment Station and Harley J. Otto, extension agronomist.

They were recognized for their efforts in educational programs which have led to improvement of seed production and distribution and increased use of high quality seed in Minnesota.

The awards were made at a banquet session at the Midland Hills Country Club, at the close of the annual Crop Improvement Day.

Hueg has held his present position since 1962 and earlier was extension agronomist at the University, specializing in improvement and management of field crops, primarily forages.

He came to the University of Minnesota in 1957. Earlier, he was an agronomy instructor at the State University of New York Agricultural and Technical Institute at Alfred, N. Y., and served in the late 1940's as a county agent in New York state. He received his Ph. D. in agronomy from Michigan State University in 1959.

Otto came to Minnesota in 1958 from Cornell University, where he had been an extension specialist in field crops and an assistant professor of plant breeding.

In his current position, Otto has taken part in a variety of educational programs dealing with field crops problems and improved practices. One of his areas of special emphasis has been education in weed control.

He has been active in a variety of other educational programs, including the Retail Seed Dealer programs. He has worked closely with the seed industry in bringing new crop varieties and species, especially grasses and legumes, into the state. He has served as secretary of the Minnesota Crop Improvement Association since 1959.

Otto is originally from Kansas, and earned his Ph. D. in agronomy at Cornell University in 1956.

Department of Information
and Agricultural Journalism
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January 13, 1965

*For release at 9 p.m., *
*Wed., Jan. 13 *

FIVE PERSONS RECOGNIZED BY CROP IMPROVEMENT GROUP

Four Minnesotans and a Twin Cities firm were recognized this evening, by the University of Minnesota and the Minnesota Crop Improvement Association, for contributions to the crop industry of the state.

Premier Seed Grower awards went to Ray S. Johnson, Sacred Heart; E. F. Krabbenhoft, Jr., Sabin, and Lloyd Neal, Murdock. All three operate farms.

Roy Schleicher, manager of the Crookston Milling Co. at McIntosh, was named outstanding Elevator Manager, and Twin Cities Seed Company, Minneapolis, was given the outstanding Seedsmen award. The award was received by Ben Klugman, president of the company.

The Premier Seed Growers were recognized for outstanding performance over a period of years in producing seed which has consistently met the standards required for certification in Minnesota.

Johnson operates three farms and has produced seed of several crops and varieties annually since 1953. Krabbenhoft operates 520 acres, with 460 in seed crops which are primarily grains but also include several species of grass.

Neal has a diversified farm of 600 acres and has been producing certified seed since 1949.

All three farmers have been active in community affairs, crop improvement and other educational activities.

Schleicher has been active in promoting new agricultural products and methods of production in his county. Recently, he has been instrumental in production of certified grass and legume seeds in the McIntosh area.

The Twin Cities Seed Company was cited for the firm's outstanding efforts in promotion and production of certified grass and legume seed in Minnesota.

The awards were made at a banquet session at the Midland Hills Country Club, at the close of the annual Crop Improvement Day.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
January 14, 1965

Immediate release

RESEARCH PARTICIPATION PROGRAM AT UM AVAILABLE TO TEACHERS

An opportunity for high school and junior college teachers to conduct summer research for graduate credit is being offered by the University of Minnesota in 1965.

The program, sponsored by the National Science Foundation, is set up to allow teachers in science and mathematics to participate in research in association with experienced staff members of the University.

The program will be conducted during 8 weeks of summer, 1965, for a total of 10 qualified teachers.

To be eligible, teachers must be employed in a secondary school or junior college; must possess an M.S. degree or its equivalent (such as a bachelors degree plus a strong background in advance science courses); must be admissible to the Graduate School of the University; and must plan to continue in teaching.

Each participant will receive graduate credit, which will be applicable to a graduate degree program if the person eventually pursues such a program.

Support for accepted participants will include \$75 per week for pre-doctoral teachers and \$100 for those with doctoral degrees. Each participant will receive, in addition, allowances for dependents and for travel.

Participants may choose research activity in a variety of areas in the biological sciences and mathematics. These areas, include: biochemical genetics; population dynamics in natural populations of mammals; soil chemistry; insect toxicology; animal breeding and quantitative genetics; application of statistics to biology and agriculture; amino acid metabolism; reproductive physiology; properties of milk proteins; bacterial diseases of plants; potato breeding and genetics; physiology of plant pathogens; host-parasite relationships; biology of insect vectors of plant diseases; physical chemistry of soils; metabolism; freshwater ecology; diseases of forage crops; herbicide residues; and apple breeding and physiology.

Applications must be completed and sent in by March 1. Additional information and application forms are available from Prof. A. G. Hunter, program director, Department of Dairy Husbandry, University of Minnesota, St. Paul, Minn. 55101.

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65-18-pjt

INSTITUTE OF AGRICULTURE CALENDAR

JANUARY

- 16 Minn. Vegetable Growers' Association Meeting, Albert Lea.
- 18 Extension Beef Management School, Ormsby
- 18-Mar. 8 Wood and Wood Products School (every Monday evening),
St. Paul Campus.
- 19 Minnesota Swine Honor Roll Banquet, New Ulm.
Extension Beef Management School, Pipestone.
Grain Grading and Marketing School, Wheaton.
Extension Beef Management School, Marshall.
- 20 Extension Dairy Management Schools: Adams, Zumbrota and
Wadena.
Extension Beef Management School, Albert Lea.
Extension Rural-Urban Seminar, Windom.
Extension Swine Management Schools: Olivia and New Prague.
- 21 Extension Dairy Management Schools: Braham and Fergus Falls.
Extension Soils and Agronomy Workshop, Madelia.
Extension Swine Management Schools: Gaylord and Slayton.
Extension Beef Management School, Hastings.
- 22 Extension Soils and Agronomy Workshop, Windom.
Extension Beef Management Schools: Madison and the West
Central School and Experiment Station, Morris.
- 23 Foresters' Day, St. Paul Campus.
- 26 Extension Beef Management Schools: Pipestone and Hastings.
Aircraft Sprayers' Short Course, Hotel Radisson, Minneapolis.
- 26-29 Grain Grading and Marketing Schools: Pipestone, Jan. 26;
Waseca, Jan. 27; Zumbrota, Jan. 28; Cambridge, Jan. 29.
- 27 Extension Dairy Management Schools: Zumbrota and Wadena.
Extension Rural-Urban Seminar, Windom.
Extension Swine Management School, Montevideo.
- 28 Extension Dairy Management Schools: Waseca, Braham and
Fergus Falls.
Extension Beef Management School, Madison.
Extension Soils and Agronomy Workshop, Madelia.
Extension Swine Management Schools: Olivia and Gaylord.
- 29 Extension Soils and Agronomy Workshop, Windom.
Extension Beef Management School, West Central School and
Experiment Station, Morris.

Department of Information
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University of Minnesota
St. Paul 55101 -- Tel. 647-3205
January 14, 1965

(with sketch)

Immediate release

USDA HAS PLAN FOR THREE-BEDROOM BRICK VENEER HOUSE

Families looking for plans for a three-bedroom home may be interested in a design drawn up by the U. S. Department of Agriculture's Cooperative Farm Building Plan Exchange.

The house, Plan No. 7174, is of brick veneer with a floor area of 1,344 square feet. Besides the three bedrooms, the plan provides for a living room, a family room, a kitchen-dining room, two bathrooms and a utility room. Also included are 308 feet of carport and 64 square feet of porch.

The utility room contains an outdoor clothes closet, a cleaning closet, the water heater, room for the washing machine, freezer and sink. Wall storage cabinets occupy two long partitions.

The fireplace in the family room provides a flue for the heating unit in the utility room. An exhaust fan will be required to ventilate the interior bathroom.

Working drawings of Plan No. 7174 may be obtained for 75 cents from Blueprint Room, Department of Agricultural Engineering, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101. Money must accompany the order. Be sure to specify the number of the plan you are ordering.

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65-16-jbn

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
January 18, 1965

Immediate release

HILL FAMILY FOUNDATION SUPPORTS SCHOOL OF FORESTRY RESEARCH

The School of Forestry of the University of Minnesota has received a 5-year \$28,475 grant from the Hill Family Foundation in support of its forest-tree improvement program.

The studies will be made by Clifford Ahlgren, research associate in the School of Forestry and resident director of the Quetico-Superior Wilderness Research Center.

The research will be done at the School's Cloquet Forest Research Center and at the Wilderness Research Center on Basswood Lake.

Purpose of the studies is to determine the compatability of different conifers when grafted and the effects of such grafting on flower and seed production.

Through this research, it is hoped that the time required to obtain flowering and seed production in conifers can be greatly reduced for such species as red and white pine, which may not flower or produce seed until 25-30 years of age.

Shortening this period will make it possible to considerably reduce the time required to produce new selections and generations in tree improvement programs.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
January 18, 1965

*For release at noon, *
*Tuesday, Jan. 19 *

SWINE RESEARCH PROGRAM VIEWED

NEW ULM--Research for the future in the swine industry--designed to reduce costs for producers and improve pork quality for consumers--was outlined today by the head of the animal husbandry department at the University of Minnesota.

Prof. L. E. Hanson said research is urgently needed on environmental aspects of swine production--including housing and management. This, he said, would be an all-around coordinated research effort such as the University now has for sheep, beef, swine breeding and nutrition.

Speaking during a Swine Day program in conjunction with the Minnesota Swine Producers Association meeting, Hanson said Minnesota ranks 4th to 5th in swine production, producing 6.5 to 7 million hogs annually.

This production, bringing returns of as much as \$250 million to producers annually, is basic to many other industries, such as transportation, livestock commission firms, stockyards, packers, processors, wholesalers, retailers, the feed industry and equipment firms.

Hanson said that by a reasonable estimate, the swine industry generates more than \$1 billion gross income in the state.

One problem in the industry, he noted, is that consumption of pork is no higher per capita now than in 1910. Relative to other meat, pork has been losing ground.

Pork consumption in the past year was about 64 pounds per person, compared with about 65 in the 1910-1919 period. Beef consumption is now about 100 pounds per person each year, compared with about 64 pounds 40 years ago.

(more)

add 1 -- swine research

Hanson pointed to several benefits from research already done at the University.

1. Pig starter formulations. Studies have shown that nutritionally adequate, yet economical starters can save at least \$1 in feed cost per pig to 40 to 45 pounds-- for a potential gain of \$6.5 to \$7 million to swine producers annually.

2. Rations. As a result of University research, rations can be developed to save as much as 60 to 100 pounds of feed per pig during the period from 40 to 210 pounds. At \$50 per ton, this is a potential gain of \$9.8 to 16.2 million annually to Minnesota swine producers.

3. Swine breeding project. Application of findings can result in breeding systems which will improve rate and efficiency of gain of market swine and improve quality, thereby increasing market value of hogs from \$1 to as much as \$2.50 per head, depending upon the system of marketing.

Hanson stressed needs for a variety of data on housing and management systems. Among the unanswered questions he listed are amount of investment a swine operation can tolerate; extent of housing necessary for efficient production; types of ventilation systems needed; suitable floor systems; optimum pen size; type of feeding; disposal systems; improvement of income through automation.

He further said more needs to be known about nutrient requirements of pregnant sows and gilts. Generally, he stated, it appears that most are overfed at present. Saving 2 pounds of feed per sow or gilt daily could mean another large saving to producers.

Hanson said most present facilities for such research at the University are old and inadequate. He outlined needs for new facilities at Rosemount, Waseca, Morris, and Crookston branch experiment stations.

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
January 18, 1965

*For release at 8 p.m., *
*Tuesday, Jan. 19 *

TWENTY MINNESOTANS NAMED TO SWINE HONOR ROLL

NEW ULM--The value of up-to-date management practices in the swine industry has been demonstrated by 20 Minnesota farmers who this evening were named members of the 1964 Minnesota Swine Honor Roll.

The recognition was made during a banquet session held in conjunction with the annual meeting of the Minnesota Swine Producers Association at New Ulm.

The program is sponsored cooperatively by the University of Minnesota Agricultural Extension Service and the Minnesota Swine Producers Association.

The 20 producers named to the 1964 Honor Roll had production figures which included an average of 9.2 pigs raised per litter, and a weight of 200 pounds at 158 days of age.

In comparison, hog producers throughout Minnesota average about 7.2 pigs per litter and require about 190 days for their hogs to reach 200 pounds.

Descriptions of the individual hog operations showed that these 20 farmers as a group owe their outstanding success to a number of management practices:

1. Multiple farrowing. All of these farmers had farrowing two to six times per year, thus spreading out their income and making full use of facilities.
2. Proper care and feeding. All of the farmers creep fed little pigs, provided them with extra iron, and increased litter size through proper feeding of sows.

(more)

add 1 -- swine honor roll

3. Breeding programs. Most farmers purchased boars with good production records and followed a good systematic crossbreeding program.

While some farmers among the 20 had modern hog production facilities, many also had relatively simple building layouts, demonstrating the fact that good management alone can lead to success in swine production.

Not all of these producers were operating on a large scale. They varied from 16 to 180 litters per year. The average for all 20 farmers was 32 litters during Jan. through June, which was the period included in the records.

New members of the swine honor roll include: Julius Barber, Bird Island; Kenneth Bunting, Redwood Falls; Maurice Durkee, Winnebago; Emil and Don Elickhoff, Fountain; Victor Emerson, Kenyon; Denton Erickson, Hanley Falls; Floyd Erkel, Le Center; John Hamann, Lake Park, Iowa; Donal Hoffmeister, Sherburn; Courier Hubmer, St. Clair; Lawrence Ingvalson, Waltham; Daniel Johnson, Dassel; Claude Mobley, Lake City; Tom O'Brien, St. Peter; Herman Ochsendorf, Canby; William Piehl, Hutchinson; Earl Schulke, Elk River; Ray Stevermer, Easton; Robert and David Thoe, Hayfield and Richard Welsh, Dodge Center.

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65-19-pjt

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
January 18, 1965

To all counties
4-H NEWS
Immediate release

4-H'ERS SEEK A
STRONGER COMMUNITY
THROUGH HEALTH

Physical fitness programs are in the swing over the country. Stress is based on exercise, posture, and a sound healthy body. Communities, schools, churches, and 4-H clubs are all participating in building stronger citizens.

The 4-H health project has an enrollment of 5,960. The objectives of the program are to develop good personal health attitudes and practices, to improve health in the family and community, and to learn how happy living depends upon good health.

Communities benefit from the services provided by the 4-H'er. Activities include polio shot surveys, donations to bloodmobile, gifts of fruits and flowers to shut-ins, collecting old nylons and jewelry for missions, donations to March of Dimes, learning the nutritive values of foods, installing first aid kits in automobiles and tractors, and working with civil defense programs.

The 4-H health project is divided into two age groups, 10-12 and 13-18.

The younger members work with two health subjects throughout the 4-H year. Health subjects include dental health, posture, nutrition, disease, community health, farm and home sanitation, and family health. One or more demonstrations or talks are given before the club or community.

Teenagers continue in their chosen health subjects and also work with the club health exhibits, programs, and booths.

As a club project, 4-H members work in promoting community health and individual health. Working with the community in establishing clean-up campaigns and working with the local clinic to improve recreational facilities for hospitals provides the 4-H'er with another challenge. The club members improve themselves by receiving immunization shots, dental checkups, eye examinations, regular physical checkups, and better personal appearance.

add 1 - health project

One outstanding health member per county is invited to attend the Minnesota State 4-H Health Camp in Itasca State Park. County medals, club certificates, state and national awards include a trip to the National 4-H Club Congress and six \$500 scholarships given to top national winners.

-smk-

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
January 18, 1965

To all counties

4-H NEWS

Immediate release

SCIENCE
ROCKETS
INTO 4-H

Today the average family uses such words as chemistry, metabolism, vitamins, carbohydrates and other scientific terms every day in their homes. Young people are becoming involved more and more in the "whys and hows" of the scientific age.

4-H project material now includes a greater study of science to keep apace with science in the classroom.

Purpose of the science program is to help the 4-H'er explore and understand why things happen as they do in the world about him, appreciate the value of science to a better way of life, and to think objectively, logically, and imaginatively, say state 4-H club leaders at the University of Minnesota.

The 4-H'er is encouraged to compare two or more ways of doing things rather than just accept "the right way." For example, the livestock project member can learn ways of feeding a balanced ration and why certain nutrients are essential to animal growth. Experiments can be conducted in which members will learn by observation and recording information. In the garden project the science study teaches the 4-H'er why seeds germinate, and 4-H'ers in the foods project learn why bread rises.

New ideas for booths, displays, and demonstrations can come from the personal scientific experiments done by 4-H members. A club might set up a booth showing the differences found in cookies baked on shiny metal, dark metal and glass. Or a display could show the effects of laundering or bleaches on different fibers, finishes and fabrics. Demonstrations by the 4-H'er could show that eggs cooked at various temperatures will result in different colors, palatability and deterioration.

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
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To all counties
ATT: HOME AGENTS
Immediate release

FURNITURE PRICES
MAY GO UP

Consumers who are including new furniture or floor coverings in their 1965 budgets will find a wide choice of styles but at moderately higher prices.

The higher price tags will be due in part to better quality.

This forecast was given at the recent Agricultural Outlook Conference in Washington, D. C., by Ethel D. Hoover of the U. S. Department of Labor.

To meet the continued demand for higher quality lines, there will be a wide variety of choice in styles and sizes of furniture as well as in types of fabrics. Provincial and early American furniture and Oriental-influenced designs continue to be popular. Special features built into some furnishings will include such devices as concealed lighting, electrical outlets, plastic shelf surfacing, tie racks and clothes hangers.

Stepped-up production of furniture is expected to result in some changes in the use of woods during the next few years. The present consumption of walnut, most popular wood for furniture made in this country, is outstripping the new growth of walnut trees. To stretch the present supply and to provide time for a planned program of conservation and replanting, the U. S. Commerce Department has revised the standard on the thickness of walnut veneer from 1/28 inch to 1/36 inch. In addition, efforts are being made to step up the development of artificial finishes and to improve those now being used.

Included in the varied fabrics now available in upholstered goods are many soil- and stain-repellent finishes. Consumers are cautioned to keep in mind that such finishes are useful but to discount any claims to magical performance. One trade columnist has warned that consumers should not be given the impression that these finishes "will put the coke stain back in the bottle, the catsup back on the hamburger and the mustard back in the hot dog roll."

add 1 - furniture prices to be higher

Tufted floor coverings of man-made fibers or blends of wool and man-mades are increasingly displacing pure wool carpets. Little change is anticipated in the prices of these floor coverings.

Major development of interest in hard-surface floor coverings is the rapid rise in the popularity of vinyl asbestos tile. Several producers have announced higher prices on this tile effective January 1 as a partial restoration of an earlier price cut.

Lower in price than vinyl tile and more durable and easier to maintain than asphalt tile, vinyl asbestos is available in a big range of styles and colors, including the rock tone and glitter effects. It is also easy to install.

The impact of Mediterranean-style furniture has helped the trend to hard-surface coverings, since an imitation marble or terazzo surface provides a stylish setting for Spanish or Italian type furniture.

-jbn-

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
January 18, 1965

To all counties
Immediate release

EGG PRICES BASED
ON QUOTATIONS
IN NEW YORK

How are prices to egg producers determined?

For an answer, you need to look at the pricing process at the large central markets, especially New York and Chicago--and, to a lesser extent, St. Louis, Los Angeles, and other markets.

Agricultural economists Clark R. Burbee and Carróll V. Hess at the University of Minnesota explain this pricing system.

The quotation system has long been used in the egg trade to establish egg prices for transactions at different market levels.

You can think of price quotation as a form of price leadership. The quotations are used as base prices in pricing formulas, under long-term trading arrangements. The leadership is made up of groups of traders in certain central markets, especially New York.

Burbee and Hess say most observers feel the quotation system is not so much the result of aggressive action of this small group of traders. Rather, it results from passive acceptance of quotations by egg marketing firms seeking convenient price formulas.

Actually, neither traders nor producers are very well satisfied with the quotation system. One objection is that it understates "true" market value of eggs. Another is that prices seem to fluctuate more than supply and demand warrant.

A third objection is that the quotation can be manipulated easily by skillful traders on the "inside."

More than 70 percent of Minnesota-produced eggs are marketed outside the state, and nearly all of Minnesota-produced eggs are marketed on the basis of New York quotations.

add large-egg pricing

The principal marketing firms in the New York egg market are larger wholesale receivers and corporate food chains. The New York Mercantile Exchange provides facilities for public trading of eggs. The Urner-Barry Company and the Federal-State Market News Services report prices and other statistics.

Large wholesalers and food chains buy wholesale lots of eggs from independent shippers, farmers' cooperatives, and producers under long-term quotation pricing arrangements. Prices usually are the Urner-Barry quotations on day of arrival for a given grade and size of eggs, plus or minus an agreed-upon differential.

The Urner-Barry quotation, the economists explain, attempts to reflect current and projected demand and supply conditions in the local market. But it is heavily influenced by National supply-demand conditions, since eggs move freely between markets as needed.

Some differential between New York quotations and Minnesota prices is needed to cover costs involved for services rendered by egg buyers and to cover shipping costs. For grade A large eggs, in 1963, the differential for the Urner-Barry quotation averaged nearly 8 cents per dozen and was rather consistent from one month to the next. The highest differential was 8.57 cents in August and the low was 6.51 cents in July.

For grade A medium eggs, there was more seasonal fluctuation in the differential. For these eggs, it varied from a high of 10.59 cents in January to a low of 5.78 cents in May.

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University of Minnesota
St. Paul, Minnesota 55101
January 18, 1965

IN BRIEF.....

Value of up-to-date management practices in the swine business was demonstrated by the Minnesota Swine Honor Roll records for 1964, according to extension animal husbandmen at the University. The 20 farmers named to the Honor Roll owed much of their success to **such** practices as multiple farrowing, proper care and feeding, and effective breeding programs. While some had modern hog production facilities, many also had relatively simple building layouts. Thus, they demonstrated the importance of good management alone.

* * * *

Drought was more than a Minnesota problem in 1964. Agricultural production declined in North America as a whole, largely because of drought, according to the U. S. Department of Agriculture. The production index was down 6 percent for Canada, but less than 1 percent for the U. S. Latin America will show a decline in production for 1964-65, with per capita output at the lowest level in a decade. Half the Latin American countries are expected to break production records this season, a sharp fall in Brazil and decreases in Argentina and Chile will drop total agricultural production below the record level of the past year.

* * * *

Sale and use of insecticides are regulated by two federal acts and corresponding state laws. Extension entomologist John Lofgren at the University of Minnesota points out that the Federal Insecticide, Fungicide, and Rodenticide Act is administered by the USDA, and provides that all pesticides sold in interstate commerce must be registered and labeled. The Food, Drug, and Cosmetic Act is administered by the Food and Drug Administration of the U. S. Department of Health, Education, and Welfare, and provides for establishment of tolerances for pesticides in or on agricultural commodities. This means applications of chemicals must be done so that residues in or on commodities are within established tolerances. Thus, farmers must follow to the letter suggestions as to dosage, time of application, crops or livestock to treat and so on. * * * *

Department of Information
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St. Paul, Minnesota 55101
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To all agencies

Immediate release

INSECT PROBLEMS
OFTEN RESULT
FROM MAN'S DOING

Arguments that insect control upsets the balance of nature often overlook the man-made upsets that led to insect problems in the first place.

Attempts to control insects often mean trying to put things back into some kind of balance, according to A. C. Hodson, head of the Department of Entomology, Fisheries, and Wildlife Management at the University of Minnesota.

Hodson says one factor is monoculture--extensive cultivation of a single crop, which may be especially choice eating from an insect's point of view.

Thus, Hodson says, "man has planted large areas of a single kind of plant, thus providing an abundance of food for the insects, while under natural conditions, these plants would occur usually in small patches.

"Clean cultivation, with elimination of weeds," Hodson continued, "sometimes creates conditions less favorable for parasites and predators of insect pests."

In other cases, Hodson says, man has created conditions favorable for survival of one pest while attempting to eliminate others. Severe outbreaks of mites, aphids, and scale insects have developed following use of DDT to kill leaf-feeding insects, probably because the DDT destroyed their natural enemies.

But while natural enemies must be taken into account in control programs, it isn't feasible to depend on natural enemies alone in controlling major insect pests in Minnesota, Hodson said.

Pest control, Hodson said, does not usually mean trying to completely eliminate an insect species. The number of insects that must be destroyed for economic gain differs for species and for times and places.

-more-

add 1--insect control

Furthermore, expressing control success as a percentage of insects killed can be misleading, Hodson said. "What should concern us more is the number of insects per plant left after a spraying operation," he said. It is the number of insects that live rather than the number that die which is important.

He illustrated this way: Suppose a plant can support 5 insects of some species without appreciable damage. If there are 10 before treatment, you need 50 percent control. If there were 100, you would need 95 percent control.

Also, size and feeding habits of insects, and the stage of growth of the crop itself, help determine how much control is needed.

One grasshopper, for example, might cause as much damage as 50 aphids, Hodson pointed out. A single grasshopper might kill a young plant easily, while a larger plant of the same kind might tolerate 5 or more hoppers without suffering severe injury.

Hodson said insects differ tremendously in their ability to become abundant, and he grouped them in four main types.

The first, illustrated by the corn borer, has a relatively stable population although it fluctuates from year to year.

The second includes species such as aphids which may fluctuate widely in abundance within a given season. They are very responsive to weather and may increase from small numbers to a devastating population in days or weeks.

Third are insects such as grasshoppers, with infrequent and irregular outbreaks. There may be several years of lull, followed by slow buildup during a series of rather dry years. Such a buildup occurred in the early 30's.

Fourth are insects with extreme periodicity--such as the forest tent caterpillar, which appears in outbreak numbers at approximately 10 year intervals. When an outbreak of this species ends, the insect all but disappears over large areas.

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Institute of Agriculture
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St. Paul 55101 -- Tel. 647-3205
January 19, 1965

*For release at 3 p.m., *
*Wed., Jan. 20 *

ECONOMIC GROWTH CREATES CLIMATE FOR SOLVING PROBLEMS

WINDOM, MINN.--Rapid economic growth can create a climate for attacking social and economic problems, but it does not itself provide all the solutions.

Agricultural economist W. K. Bryant from the University of Minnesota pointed out here today that the economic growth of the last two decades has not done much for the coal miner and his family in West Virginia or Kentucky.

"A rapid rate of national economic growth can completely by-pass an industry or a region," he said.

"Agriculture is one industry out of adjustment. But unless there are jobs in another industry, the adjustment problem in agriculture is harder to solve," he continued. "Economic growth may provide these jobs."

How can economic growth be stimulated? Bryant distinguished between real gross national product (GNP) and capacity to produce marketable goods and services.

GNP is what a nation actually produces, which Bryant said can be increased in a number of rather well-known ways--as long as the economy is operating below capacity.

For example, high unemployment rates of recent years show that we have not been producing what we could have produced, Bryant said. Such situations could be corrected several ways.

(more)

add 1 -- economic growth

"Through monetary policy we can increase the money supply, ease credit, and lower interest rates in order to stimulate spending and a greater effective demand by business, individuals, and state and local governments."

Fiscal policy can be used, he said, such as in tax reduction. Or Federal spending can be increased.

However, Bryant said, increasing capacity to produce is something else. Such an increase is possible only if some or all of these things happen:

- a) quantity of productive resources is increased;
- b) quality of resources is improved;
- c) productive potential of resources is increased.

Bryant pointed to estimates by other economists that increases in quantity and quality of inputs has been responsible for 68 percent of the growth from 1929 to 1957. The rest--32 percent--came from increasing productivity.

Bryant said that real GNP--what we have produced--and our capacity to produce need not be the same, and rarely are. In recessions, the economy does not produce up to capacity, and during inflation, people demand more goods and services than the economy can supply.

Capacity is more difficult to measure, and the commonly used measure of economic growth is real GNP, according to Bryant. And, of course, from longtime changes in real GNP, one infers changes in capacity.

Bryant added that figures on change in GNP can be misleading, since it measures only the real value of goods and services which are actually bought and sold.

Thus, in a non-market economy, GNP would be zero; when a person does gardening at home, or when the wife does the laundry, goods are being produced but they do not enter the market and thus may not be counted in real GNP.

But as soon as you hire these services done, you add to measured GNP. Therefore, much of the rapid change in GNP shown by developing nations often is largely a transfer to a marketing system.

Department of Information
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St. Paul 55101 -- Tel. 647-3205
January 19, 1965

Immediate release

UM FORESTERS DAY SET FOR JAN. 23

Old-time logging days will be relived on the University of Minnesota's St. Paul Campus on Saturday, Jan. 23, when forestry students compete in log chopping, two-man log bucking, pole climbing and other events common to early loggers in the state.

The 31st annual Foresters Day will begin at 11 a.m. with a logger-style bean feed to be served by faculty members in Luther Hall, located adjacent to the St. Paul Campus.

At 1 p.m. student skits will be presented in the auditorium of Green Hall, School of Forestry headquarters. Following the skits, the foresters will crown their queen, "Daughter of Paul (Bunyan)."

Also named will be the "Son of Paul" and "Uncle of Paul," a student and a faculty member who have contributed most to the furtherance of the Foresters Club during the past year.

Following the crowning ceremonies will be the logging contests, which will consist of log chopping, two-man log bucking, pole climbing, match splitting, egg throwing, tobacco spitting, log throwing and axe-burying. The girls will compete in snowshoe races and nail driving.

Concluding the day's activities will be the Stump Jumper Ball in the North Star Ballroom of the Student Center. The dance will begin at 9 p.m. and will feature Dick Marrone and his orchestra. Square dance clothing will be the proper attire, except for male students who will wear lumberjack clothing.

Intermission will feature awards presentation to winners of the field events and foresters having the best beards in various classifications. Admission to the dance is \$1.50 per couple.

The public is invited to attend any or all events of the day.

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65-25-vak

Department of Information
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Immediate release

NEW EARLY TOMATO DEVELOPED BY UNIVERSITY OF MINNESOTA

Irradiation has played an important part in the development of a new early ripening tomato variety being introduced by the University of Minnesota this spring.

Named Early Fireball, the new tomato resulted from a mutation or genetic change caused by irradiation treatment, according to T. M. Currence, professor of horticulture, responsible for development of the new variety.

Parent of the new variety is Fireball, widely accepted generally as an early standard variety since it was introduced about 10 years ago.

Work on the new tomato began in 1957 at the University, when several thousand seeds from one Fireball plant were irradiated with thermo-neutrons. Plants were grown from these treated seeds and from untreated seeds of the same plant, Currence explains. From the plant population grown, seed was saved of the first-to-ripen fruit. The same procedure was followed for three additional years. In the fourth year the best selection--now known as Early Fireball--produced an early yield of 2.6 pounds per plant compared with 1.7 pounds from the best line planted from untreated seeds.

The red, slightly ridged fruit of Early Fireball is slightly larger than that of Fireball. Since foliage is sparse, the fruits are exposed and tend to sunscald in hot, sunny weather. Plants are self-pruning and small. Because of early fruiting, they tend to wither and die in late summer.

If you are interested in growing this new variety this year, check with your local garden store.

More information on Early Fireball is given in Miscellaneous Report 58, Early Fireball, available from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101.

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65-23-jbn

Department of Information
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Immediate release

DISTRICT 4-H RADIO SPEAKING CONTESTS IN FEBRUARY

County winners in the 23rd annual statewide 4-H radio speaking contest will compete in 16 district events from Feb. 11 to Feb. 20, Mrs. Sue Fisher, assistant state 4-H club leader at the University of Minnesota, has announced.

Contestants will give original speeches 5 to 7 minutes long over local radio stations on the subject, "What Does the Separation of Church and State Mean to Me?"

District contests have been scheduled as follows:

Feb. 11, 3 p.m., KVCX, Moorhead.

Feb. 13, 10 a.m., WJON, St. Cloud; 10:05 a.m., KDHL, Faribault; 10:05 a.m., KMHL, Marshall; 11 a.m., WCMP, Pine City; 11:15 a.m., KOZY, Grand Rapids; 1:30 p.m., WD SM, Duluth; 2 p.m., KWNO, Winona; 2 p.m., KWAD, Wadena; 2 p.m., KNUJ, New Ulm; 2 p.m., KOTE, Fergus Falls; 2:15 p.m., KATE, Albert Lea.

Feb. 15, 12:30 p.m., KUOM, St. Paul.

Feb. 20, 1:15 p.m., KWCA, Worthington; 1:45 p.m., KILC, Grand Forks (contestants meet at Northwest School in Crookston); 3:30 p.m., KWLM, Willmar.

Champions and reserve champions in district competition will be awarded expense-paid trips to the University's St. Paul Campus to participate in activities of state radio speaking events March 8 and 9, although only district winners will compete in the contest. Awards are given by the Jewish Community Relations Council of Minnesota.

Other awards given by the Council include \$100 in cash to the state champion, \$50 to the reserve champion and \$5 to each county winner. The state champion will also receive \$50 and the reserve state champion \$25 to purchase books for his school or public library.

More than 1500 4-H members participated in last year's radio speaking competition.

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January 21, 1965

Immediate release

SELECT RECOMMENDED VARIETIES OF FRUITS FOR HOME GARDEN

Choose a fruit variety suitable to your part of the state and to your particular conditions if you want to be successful in growing fruit in your home garden.

That suggestion comes from O. C. Turnquist, extension horticulturist at the University of Minnesota. He emphasizes that choice of an adapted variety is the first step to success in growing fruit.

Another point for the home fruit grower to keep in mind, the University horticulturist says, is to include at least two different varieties of each fruit selected in order to improve fruitfulness of the planting through cross-pollination. Most plums and cherryplums require special pollinizers.

A recommended list of fruit varieties for Minnesota is given in a newly revised University of Minnesota Agricultural Extension Service publication, Horticulture Fact Sheet No. 3, Fruits for Minnesota, 1965. The fact sheet is available free of charge from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101 or from county extension offices.

A few of the varieties suggested for all areas of Minnesota are these: June-bearing strawberries - Earlimore, Premier, Dunlap, Robinson (Scarlet Beauty), Trumpeter and Sparkle; everbearing strawberries - Ogallala, Brilliant, Gem, Superfection, Czark Beauty; raspberries - Durham and September (both red everbearing), Newburgh and Latham; grapes - Beta (black), Bluejay (dark blue) and Red Amber (red); crabapples - Centennial, Dolgo and Rescue; hybrid plums - La Crescent.

Apples and other fruits are listed according to approximate time of harvest, as well as to adaptability to the four fruit districts into which Minnesota is divided. Information is also given on susceptibility to specific diseases and necessity of winter protection for specific varieties.

Department of Information
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*For release: After 9 p.m., *
*Friday, Jan. 22 *

ITASCA COUNTY FORESTER GETS ACHIEVEMENT AWARD

Floyd C. Colburn, Itasca County extension forester, received the Outstanding Achievement Award tonight (Friday) from the Forestry Club of the University of Minnesota at the groups meeting in the St. Paul Campus Student Center.

The award is given annually to an alumnus of the University School of Forestry for his major contributions to the advancement of forestry in the state. The presentation was a preliminary to Foresters Day on the campus Saturday.

Colburn, a 1934 graduate, has been with the Agricultural Extension Service since 1947. Before that he was a forester with the Lake States Forest Experiment Station, Chippewa National Forest, Guayle Emergency Project and the forestry industry.

Last year he received the Superior Service Award of the U. S. Department of Agriculture for his work in Itasca County in developing and promoting an extension forestry program that has helped farmers realize greater immediate benefits as well as future potential from their woodlands.

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65-29-vak

Department of Information
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Immediate release

GARDEN STORE OPERATORS' SHORT COURSE SCHEDULED

A short course for garden store operators has been scheduled for March 2 on the University of Minnesota's St. Paul Campus, according to LaVern A. Freeh, head of the Department of Agricultural Short Courses.

Designed to meet everyday problems of operators of garden centers, the short course will emphasize various business aspects, merchandising, salesmanship, handling of plant materials and use of fungicides. Principal speakers will be nurserymen and University of Minnesota staff members. John H. Millican, Lexington Gardens, Inc., Lexington, Mass., will be guest speaker.

The short course is sponsored by the University's Department of Horticultural Science in cooperation with the Department of Agricultural Short Courses.

Further information on the short course and advance registration materials are available from Department of Agricultural Short Courses, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101 or by calling 647-3211.

Registration fee for the one-day event is \$5.

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65-27-jbn

Department of Information
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Immediate release

UNIVERSITY ROLE SEEN IN TECHNICIAN EDUCATION

Universities not only occupy a unique and vital position with regard to programs for technician education, but they have an inescapable responsibility for understanding, directing and supporting such programs.

According to LaVern Freeh, head of the University of Minnesota's Department of Agricultural Short Courses, "one of our greatest challenges today is that of providing adequate and appropriate educational opportunities for an ever-increasing number of people in a technological world of accelerated change.

"As automation increases, the number of people employed in an industry decreases," he explains. "And as the number of people employed decreases, the competency they must possess increases."

He says universities not only have an opportunity, but a "basic responsibility for providing leadership, resources and creative ideas for the development of more complete and more completely coordinated technician education programs in the years ahead."

(more)

add 1 -- Freeh

Such programs should stress and merge basic general education and highly specialized technician training. They should provide a depth and breadth of education appropriate for the work and citizenship roles technicians must assume. And they must receive the same status in the academic community as do baccalaureate programs.

"If our universities do not accept a much greater responsibility for technician education," Freeh says, "the needs will have to be satisfied by other kinds of education and training."

This, according to Freeh, will widen the gap between general and vocational-technician education and result in "narrow specialization geared to matching people to existing jobs with almost automatic job displacement as the nature of jobs and specialties is constantly changed by new technology."

Universities must provide leadership, direction, programs and guidance in the area of technician education. But beyond this, he says, "universities have an even greater responsibility for helping other institutions--at other levels--to plan and to develop vocational-technician education programs.

Freeh points to four ways universities can meet this responsibility:

First, they can serve as a force for bringing together all levels and segments of education in their state or area.

Second, they can provide adequately prepared teachers for vocational and technician education.

Third, they can support, where feasible, the development of two-year colleges and area schools which provide technician education programs for youth and adults.

And finally, they can strive to raise the level and status of vocational-technician education both with the university and in society in general.

Freeh has been head of the University's Department of Agricultural Short Courses since July, 1962. Before that he was coordinator of student programs in the College of Agriculture at Michigan State University.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
January 25, 1965

To all counties
4-H NEWS
Immediate release

PRESSING IS
IMPORTANT STEP
IN SEWING

Press as you sew if you want to be pleased with the finished garment you are making for spring wear.

Good pressing smooths your fabric and molds the garment shape. Hence, successful sewing involves good pressing techniques.

Extension clothing specialists at the University of Minnesota have some suggestions for 4-H girls and others who plan to do some spring sewing.

Good pressing, besides molding garment shape, maintains the original texture of the fabric, and does not leave signs of overpressing, they point out.

Press seams in the same direction as they have been stitched. A moist press cloth should be used with a dry iron. Use a light press cloth with light fabric and a heavy press cloth with heavy fabric. You can make your own cloth from lintless cotton or doubled cheesecloth.

A curved pressing ham will shape the rounded areas such as the darts, curved seams, and sleeve caps. Heavy paper inserted between seam allowances and the garment will avoid an imprint of seams, darts, and hems on the right side of the fabric. Flatten the bulky edges and set the creases with a tailor's ham.

Give the garment a finished look with properly pressed hem and pleats. Press the fold of a hem upward from the lower edge to prevent stretching and to make ease of fullness possible. Press seam allowances open in the hem to prevent bulkiness. A tailor's beater will give the pleat a sharp crease.

If you "press as you go" the garment will need little final pressing.

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
January 25, 1965

To all counties
ATT: HOME AGENTS
Immediate release

CLOTHING PRICES
MAY GO UP;
SUPPLIES AMPLE

Retail prices of clothing and textiles may edge up slightly in 1965, but supplies will remain large.

Possible rises in prices for wool apparel and leather shoes may be partially counterbalanced by some decreases in the prices of cotton apparel and silk garments, according to a report from Athelene Scheid, extension clothing specialist at the University of Minnesota.

Attempts by the industry to boost sales of higher-priced clothing and textiles are likely. Some lower-priced lines will probably be discontinued. Emphasis will be on fashion and ensembles in clothing and household textiles.

Price levels for clothing have not increased at the rate of prices for most other goods, although the difference has lessened lately, Miss Scheid says. From July, 1963 to July, 1964 clothing and textiles rose 1.0 percent while the Consumer Price Index for all items rose 1.1 percent. In recent years men's and boys' apparel and footwear have led the price advance, although the price of footwear changed little this past year.

Prices of apparel of different fibers have changed at different rates. Over the last 12 months for which prices were available, prices of wool advanced 3 percent, apparel of manmade fibers increased 0.8 percent and cotton apparel rose very little -- only 0.4 percent.

Prospective supplies of cotton, manmade fibers, hides and skins seem ample for the year ahead. Use of cotton by domestic mills is expected to be 13 percent larger than a year ago. In the first six months of 1964 production of manmade fibers was 16 percent greater than in the same period a year earlier and it is expected to increase in 1965.

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University of Minnesota
St. Paul, Minnesota 55101
January 25, 1965

To all counties
Immediate release

MASTITIS LOSSES
OFTEN UNDERESTIMATED
BY DAIRYMEN

Although mastitis is one of the oldest known problems in dairy herds, many dairymen still underestimate what it's costing them.

Mastitis is costing about \$19.50 per cow each year through lower production, unsalable milk from treated cows, cost of treatment and extra time spent in milking problem cows.

And the loss does not stop there. Less frequently recognized is reduction in quality of milk sold, according to William Mudge, extension dairyman at the University of Minnesota.

Some out-of-state markets, Mudge says, recently started rejecting milk on the basis of the catalase test which indicates the amount of mastitis in the herd. Since more than 80 percent of Minnesota's milk is eventually marketed outside the state, it is especially important for Minnesota milk to be of top quality.

A cow with mastitis infection sheds large numbers of white cells, infection fighters, in the milk. These cells increase the content of an enzyme, known as catalase, in the milk.

The test for catalase is based on the release of oxygen from hydrogen peroxide which is added to the milk sample from the herd. Reading the tests involves direct measurement of the oxygen, which is more precise than interpreting a color reaction or gel formation as is necessary in some of the other tests.

In general, there is a close relationship between the percent of mastitis infected cows in the herd and the catalase test of herd milk.

-more-

add 1 - mastitis losses

Some states conduct a monthly catalase test on herd milk. In those cases, herds with catalase tests of 30 percent or higher are then visited by plant field men or state veterinarians to assist the dairyman in finding causes of the problem. Veterinarians then check individual quarter samples, using the California mastitis test or similar tests, together with physical examination, to point out cows whose milk should be withheld from the market.

Currently, there are no requirements for a catalase test in Minnesota.

For an individual dairyman, a number of management practices help to keep mastitis at a minimum:

1. Protect udders and teats from cold, wet floors and injuries. Use enough bedding. In remodeling or building barns, make stalls wide and long enough to prevent injuries.
2. Use single service towels for washing udders. Paper towels are fine. If cloth towels are used, use one to a cow and sterilize between milking. Don't use a sponge; it spreads infection from one cow to another.
3. Remove the machine promptly when the cow is milked out.
4. Keep the milking machine in top operating condition. Be sure the vacuum pump and lines are large enough. Clean pulsators and vacuum controllers regularly. Use two sets of teat cup liners and alternate them weekly.
5. Use the services of a good milking machine service man.

Mastitis control means extra dollars from increased production and time saved, Mudge says. Furthermore, milk quality is improved to help insure a market.

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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
January 25, 1965

To all counties
Immediate release

IN BRIEF.....

World agricultural prices, following a decline in the first half of 1964, have recovered slightly since last July, according to the U. S. Department of Agriculture. These movements are shown by two different indexes--the Reuter's index of commodity prices in United Kingdom markets, and in the Dow-Jones spot index, which is made up entirely of agricultural price quotations. Among the factors are cattle and beef which brought substantially higher prices in European markets during 1964 than a year earlier. U. S. cattle and beef prices dropped to very low levels in the first half of 1964, but recovered somewhat later in the year.

* * * *

Minnesota ranks 4th to 5th in swine production, producing some 6.5 to 7 million hogs annually. This production, according to L. E. Hanson, head of the University of Minnesota's Animal Husbandry department, brings returns of up to \$250 million to producers annually and is basic to many other industries. By a reasonable estimate, Hanson says, the swine industry generates more than \$1 billion gross income in the state. One of the urgent needs for research, he adds, deals with environmental aspects of swine production--including housing and management. Among the questions: amount of investment a swine operation can tolerate; extent of housing necessary for efficient production; types of ventilation systems needed; suitable floor systems; optimum pen size; type of feeding; disposal systems; and income improvement through automation.

* * * *

Rapid economic growth can create a climate for social and economic problems but does not provide all the solutions, according to agricultural economist W. K. Bryant from the University of Minnesota. He points out that a rapid rate of national economic growth can completely by-pass an industry or a region--as occurs in some sections of the U. S. Agriculture, for example, is one industry out of adjustment. But unless there are jobs in another industry, the adjustment in agriculture is harder to solve, Bryant says. Economic growth may provide these jobs.

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
January 25, 1965

To all counties

Immediate release

FREE STALL HOUSING
CAN REDUCE DAIRY
BEDDING NEEDS

Dairymen are discovering that by using free stalls in their housing facilities that they can keep their cows cleaner and at the same time reduce bedding requirements by about 75 percent.

D. W. Bates, extension agricultural engineer at the University of Minnesota, explains that free stall housing consists of stalls or compartments which cows can enter or leave as they please.

Bates recently authored a bulletin on "Free Stall Housing for Dairy Cattle." In it he discusses such items as management factors, stall size and construction, manure handling and ventilation.

Free stalls can be used in either warm (insulated) or cold (uninsulated) buildings, he says. While warm buildings need mechanical ventilation, natural air movement in the cold buildings is sufficient to remove any excess moisture.

Warm free stall housing units usually have the feeding and resting areas in the same building, along with an attached milking parlor and milkhouse. With this arrangement, Bates explains, the animals need not be exposed to unfavorable weather.

He recommends that for cold housing dairymen install about 10 percent more stalls than they have cows. This not only allows room for expanding the herd, but also makes it easier for cows to find stalls and permits them to leave stalls next to open doors vacant during bad weather.

Although cows in heat have been found to cause no more of a problem in free stall housing than in conventional loose housing, Bates explains that certain problems may accompany the use of free stall units.

-more-

add 1 - free stall housing

For example, a few cows in the herd may refuse to use the free stalls. These cows can usually be trained to use the stalls simply by tying them in for a few nights.

More detailed information can be found in the bulletin titled, "Free Stall Housing for Dairy Cattle." Copies are available from county agricultural agents or from the Agricultural Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

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Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
January 26, 1965

Immediate release

STATE OFFICERS OF YAC ELECTED

Darla Frautnick, St. James, is the new state president of the Minnesota Young Adult Citizens (YAC) for 1965-66.

Other officers elected at a recent meeting of the state council of YAC are Carol Henkelman, Appleton, vice president; Karen Griep, Delano, secretary; and Curtis Thering, St. Cloud, treasurer.

District chairman selected were: organization and extension - Miss Frautnick, southeast district; Margaret Ehlbeck, Windom, southwest; Sidney Prom, St. Cloud, central; educational programs - Helen Edwards, Utica, southeast; Miss Henkelman, southwest; Miss Griep, central; recreation and events - Eldon Tlam, Dassel, southeast; Neal Mortenson, Appleton, southwest; Thering, central.

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

Cleo Sandmeyer, St. James, is retiring state president. William A. Milbrath, extension specialist for the young adult program, is adviser.

Department of Information
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University of Minnesota
St. Paul 55101 -- Tel. 647-3205
January 26, 1965

Immediate release

UM SCHEDULES 4 SYRUP PRODUCER MEETINGS

Educational meetings on maple syrup production will be conducted by the University of Minnesota Agricultural Extension Service in four Minnesota cities Feb. 1-4 for active and prospective syrup producers.

The meetings will be held in Faribault, Waconia, Onamia and Detroit Lakes, according to William R. Miles and Marvin E. Smith, extension foresters.

Anyone who is interested in learning more about making maple syrup, its profit possibilities and about recent advances in production and processing is invited to attend, they said.

Dr. John Kissinger, researcher in the Maple Investigations Branch of the U.S. Department of Agriculture, will be the featured speaker at all meetings. He is presently assigned to the regional research station in Philadelphia.

All four meetings will run from 10 a.m. to 3:30 p.m. There is no registration fee.

The dates and locations of the meetings are as follows:

Faribault -- Monday, Feb. 1, 4-H Club Building at the county fairgrounds on the north side of town.

Waconia -- Tuesday, Feb. 2, Isaak Walton Cabin on the south shore of Lake Waconia.

Onamia -- Wednesday, Feb. 3, Bethany Lutheran Church.

Detroit Lakes -- Thursday, Feb. 4, Courthouse.

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St. Paul 55101 -- Tel. 647-3205
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Immediate release

SHEEP, LAMB FEEDERS DAY SET FOR FEB. 11 AT MORRIS

The 33th Annual Sheep and Lamb Feeders Day will be held Thursday, Feb. 11, at the University of Minnesota's West Central School and Experiment Station in Morris.

The event will begin at 10 a.m. in Edson Hall Auditorium with a report on the effect of urea soybean meal and dehy or alfalfa hay with corn silage or pelleted rations for feeder lambs.

Other reports to be presented deal with providing nutrients to gestating ewes, the effect of weaning, grain feeding and age at weaning on weight gains of grazing lambs, and do's, don'ts and diseases in farm flocks in Minnesota.

The Feeders Day is held each year to bring lamb feeders and sheep producers from throughout Minnesota and nearby states up-to-date on current research findings. Research reports will be presented by University staff members.

Harold Seaton, a lamb feeder from Aberdeen, S. D., will discuss his feedlot practices, and George Spencer of Swift and Co. in Chicago, will report on adjustments and potential in lamb marketing and processing.

Dwight Holaway of the North Central Wool Marketing Corporation in Minneapolis will give an illustrated report on the wool growers tour of New Zealand and Australia.

At 12:10 p.m., mid-way in the program, a lamb dinner will be served in the Campus Dining Hall.

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Immediate release

STUDY MADE OF HOMEMAKING TEACHERS

Whether your image of a homemaking teacher is of an attractive but harassed young woman just out of college or of a competent, motherly soul, forget it. There just isn't any stereotype of a home economics teacher.

That fact was borne out in a recent study of a carefully chosen sample of homemaking teachers in the public schools in 26 states. More than 700 teachers responded to a series of questions and devices which measure attitudes about certain aspects of the teaching profession. Large as well as small schools in both urban and rural areas were selected for the study.

Roxana R. Ford, professor of home economics education, and Cyril J. Hoyt, professor of educational psychology, University of Minnesota, conducted the research under a contract with the United States Office of Education, Department of Health, Education and Welfare.

One of the objectives of the project was to determine the relationship of homemaking teachers' competencies to their attitudes toward pupils, the community, co-workers, the school, familiar interpersonal relations, the profession and subject matter.

Whether they taught in large or small schools, their reasons for entering teaching were similar: a liking for people and a desire to help individuals to help themselves. Two-thirds of the respondents believed teaching to be "far the best" or "the best" profession.

(more)

add 1 -- homemaking teachers

Contrary to the notion that teachers in a big school system are impersonal, the study showed that teachers in the two largest size school systems scored the highest on attitudes toward their students and the subjects they taught.

Most of those interviewed taught homemaking to girls only, but more than a third contributed also to an adult education program.

Here are some of the other findings:

. There was little relationship between length of service and attitudes. Long tenure did not result in teachers going "sour" on the job.

. Homemaking teachers in the study gave an average of 43 hours per month to 13 specified extra-curricular activities. Some of these were of limited educational value--such as selling tickets to athletic events and monitoring lunch rooms. Others of more educational value included helping students in some club activity or assisting them in special projects.

. More than two-thirds of the respondents were married. Married women with children comprised the largest group.

. Slightly more than three-fourths of those interviewed had college courses beyond the B.S. or B.A. and about a fourth had earned a Master's degree or equivalent. More than three-fourths had taken course work within the past five years.

. Almost half of the teachers considered department facilities adequate, while about a fourth considered them inadequate.

. Forty percent of the group had served or were serving as supervising teachers. Half of this number had no preparation of any kind for supervision.

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65-30-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
January 27, 1965

*For release at 1:30 p.m., *
*Thursday, Jan. 28 *

ST. PAUL CAMPUS HAS MANY URBAN STUDENTS, UNUSED OPPORTUNITIES

The St. Paul Campus of the University of Minnesota is becoming increasingly urban in its student population, but there is still a lack of appreciation of professional opportunities in agriculture among many metropolitan young people.

This point was emphasized by Assistant Dean Keith McFarland of the College of Agriculture, Forestry and Home Economics today during a session with the Minneapolis Chamber of Commerce, held on the campus.

McFarland said that while every county has students on the campus, about half of all undergraduate students there are from the 9-county area surrounding and including the Twin Cities.

In fact, 27 percent are from Hennepin County alone, and 13.8 are from Ramsey County.

Yet, McFarland said, demands from industry for graduates of agriculture, forestry and home economics programs far exceeds supply. These professional opportunities, he said, would be fully in accord with the career wishes of thousands more urban young people--if they had a full understanding of the opportunities.

(more)

add 1 -- McFarland

Among graduates in agriculture alone, he said, 60 percent enter private industry or business. The rest take positions in public employment, or are self-employed.

In forestry, McFarland pointed to heavy demand for graduates in the forest products, merchandising and research areas. Currently, the majority of forestry graduates accept employment in federal, state or local public agencies.

In home economics, said McFarland, great shortages of graduates exist in education and dietetics, but there are critical needs for persons with advanced degrees for college teaching, research and related activities.

McFarland illustrated the undersupply of graduates by pointing to employment of recent graduates in dairy industries--and to scores of requests for job applicants for which none was available. Yet, the training is available on the St. Paul Campus, he said.

McFarland illustrated the variety of professional curricula in the College. Areas of study in agriculture include production and production industries; agricultural business management and economics; physical and biological sciences; food science; and resource development.

Curricula in forestry include forestry resources management; forest products engineering; forest science; and forest products merchandising.

In home economics, the programs include foods; textiles and clothing; family social science; nutrition; household equipment; related art; home economics education; and joint curricula in child development and journalism.

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65-34-pjt

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
January 27, 1965

*For release at 1 p.m., *
*Thursday, Jan. 28 *

INSTITUTE OF AG. CONTRIBUTES TO ECONOMIC GROWTH

The Institute of Agriculture at the University of Minnesota has a fundamental mission to contribute to the state's economic growth, according to Sherwood O. Berg, dean of the Institute.

Speaking before a meeting with the Minneapolis Chamber of Commerce on the St. Paul Campus, he said agribusiness truly can be described as a growth industry.

Farm production, he pointed out, has increased 54 percent in the past two decades. In terms of cash farm marketings and value added to products, the agricultural business sector contributes about \$3.5 billion to the state's economy.

But he emphasized the changes--such as the shift in the "input mix." Between 1940 and 1960, the amount of labor in agriculture declined 46 percent, while use of capital increased 90 percent.

And the changes will continue. By 1975, he said, purchases of inputs are expected to increase by a third. Cash farm marketings, meanwhile, are expected to increase by a fourth in that period.

Dean Berg said the Institute of Agriculture cannot be impervious to such changes if it is to serve Minnesotans in the land grant tradition of the University. He referred to several functions of the Institute within its four main functions:

* Resident Teaching. "The speed with which our society and economic system move today demands a balanced education; we strive for a judicious mixture of professional training with the liberal arts. It has been seriously proposed that, rather than being rigidly bound to a departmental major, a student would do his academic work within, let us say, one of five major curricular areas."

(more)

add 1 -- Berg

* Research. "Opportunities for economic advancement through research are almost limitless. We have been closely concerned with soybean research, producing disease-resistant varieties, a solid yellow bean high in proteins, and so on. Production of soybeans in Minnesota alone in 1963 returned \$33 million to producers and \$15 million to the soybean processing industry in our state."

* Continuing Education. "Our Extension efforts are geared to the proven concept that education is a lifelong process; what we learn in the present will be inadequate for the future. Through the county extension agents, the University has, in effect, a campus in all of Minnesota's 37 counties. And, contrary to widespread belief, we have a program for urban as well as the rural areas of our state."

* International Programs. "We have a role in the economic advancement of under-developed nations of the world. Fundamental to this program is a sound agriculture. This involvement has practical implications for Minnesota. For example, in the work by our staff on soybeans, under a cooperative research project between the University and Chile, taking advantage of the difference in seasons can cut research time virtually in half."

Berg concluded that "our goals and our means are continually conditioned by the scientific, technological, economic, social and political changes of our time. A greater public understanding is vital if we are to discharge more effectively our responsibilities which have been placed upon us as a land-grant institution to serve the people of the state and nation."

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65-35-pjt

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

LANDSCAPE ARCHITECTS TO SPEAK AT WORKSHOP

Approximately 50 landscape designers from Minnesota and neighboring states will spend Feb. 2-4 at a special workshop in landscape design on the University of Minnesota's St. Paul Campus.

Changing styles in the architecture of homes and business structures and the trend toward more living out of doors have dictated changes in landscape design, according to C. G. Hard, extension horticulturist at the University of Minnesota and coordinator of the program. Purpose of the short course, Hard said, is to help landscape architects adapt to the changing needs of the times and to give them an opportunity to have their design ideas subjected to critical analysis.

Landscape designers who will conduct the workshop sessions are Charles Wood, Minneapolis; Paul Novack, Chicago; and Harold Hunziker, Niles, Mich. Participants will work in small groups on separate design problems under the direction of a landscape architect.

Luncheon speakers include Peter Lupori, head of the Department of Art, St. Catherine's College, St. Paul; Richard A. Peterson, associate professor of architecture, University of Minnesota; Donald Wedge, Wedge's Nursery, Albert Lea; and Dale Connolly, Elling's Birch Lake Nursery, St. Paul.

Living in the landscape, art in landscape design, landscape design in relation to traditional and modern architecture and selling the landscape design are some of the subjects to be covered at the three-day sessions.

The workshop is sponsored by the Minnesota Association of Nurserymen and the landscape design section of the University's Department of Horticultural Science.

Department of Information
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*For release at 12:45, *
*Thursday, Jan. 28 *

IMPORTANCE OF VETERINARY MEDICINE EDUCATION AND RESEARCH STRESSED

Education and research in veterinary medicine are basic to progress and the economic health of the community and the state, the dean of the College of Veterinary Medicine at the University of Minnesota said today.

Dr. W. T.S. Thorp, speaking before a meeting with the Minneapolis Chamber of Commerce on the St. Paul Campus, said that the College is attempting to develop a primary product--the best doctors of veterinary medicine in the country.

In addition to this education, he stressed the contributions of service and research which are not fully recognized.

"The veterinary profession in its entirety," he said "has certain responsibilities to the community which it serves.

"Although this branch of the health professions has been associated primarily with agriculture, it has public health responsibilities in the control of certain diseases affecting man--rabies in dogs, for example.

"There are other diseases which are transmissible from animals to man, such as tuberculosis, brucellosis, encephalitis, and others."

Throughout the world, Dr. Thorp said, there are more than a hundred diseases of animals which may affect man directly.

(more)

add 1--Thorp

"The disease control program which has given us one of the healthiest animal industries in the world and has permitted a plentiful food supply in this country is one of the main responsibilities and accomplishments of an able veterinary profession," he said.

He said there are many increasing dimensions and new horizons for veterinary medicine, in activities such as Public Health, Space Medicine, Radiological Health Research and Laboratory Animal Medicine.

The College of Veterinary Medicine, he said, has some 50 research projects.

Many deal with diseases important to the livestock industry, but a number concern diseases of animals which are similar to those in man, such as porphyria and leukemia.

The College was started in 1947, and 587 veterinarians have graduated since 1951. Of these, a total of 508 are practicing veterinarians in the immediate economic area. This includes 354 who are residents of Minnesota, and 154 who are residents of North Dakota, South Dakota and Wisconsin.

Veterinary education leading to the Doctor of Veterinary Medicine degree, Dr. Thorp said, was established at the University to meet the demand for veterinarians and the demand for admission on the part of students who had completed the 2-year preveterinary medicine requirements.

Currently, the College is made up of 8 departments covering both the pre-clinical and clinical years.

Dr. Thorp said that since the beginning of the College, about half of the facilities which are essential for the teaching program as well as for research and service, have been completed.

The remainder, he said, are included in the 10-year building plans of the University. A \$1,500,000 request now being made of the legislature is part of this plan.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
February 1, 1965

To all counties
4-H NEWS
Immediate release

**ACCESSORIES
COME ALIVE
IN '65**

A minimum of accessories and money can make a drab, colorless wardrobe come alive.

Basic accessories, like the basic dress, can be used in many places and for many occasions, say extension clothing specialists at the University of Minnesota.

Accessories include shoes, bags, gloves, hose, scarves, hats, flowers, and jewelry. They can serve either a functional or a decorative purpose.

Your choice in accessories expresses the person you are. The University specialists have these suggestions to 4-H clothing girls and others who are planning ahead now for well rounded wardrobes in 1965.

Look at your accessories. The lines of the accessories should relate to the lines of the costume. Three basic lines are found in any accessory or costume--vertical, diagonal, and horizontal. The vertical and diagonal lines emphasize height, while the horizontal line brings out width.

Colors are also important in accessories. Colors are selected to match, blend or contrast. Choose a color becoming to your skin, hair and eyes. Limit the use of the same color to three times or less. Develop color accents for easy movement of the eyes from one color area to the next.

Flatter your figure with color accents placed well. Use color contrast to accent only the best figure features. Do not scatter the color accents if you're a small person. Stocky persons need to keep color areas high and toward the center of the figure, and the tall person can distribute color contrasts farther apart.

add 1 -- accessories

Keep in mind that careful selection of texture should be made to fit the occasion. Texture is the surface appearance and the way something feels when you touch it. Texture is either coarse, medium or fine. Coarse surface appearance suggests sturdiness and casualness. Medium texture is used with semi-tailored garments and fine texture is found in party clothes.

Accessories involve planning. Try to harmonize accessories to the dress. Satisfaction and self-assurance come with knowing you have done your best with your clothes, accessories and appearance.

-smk-

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
February 1, 1965

To all counties
Immediate release

FEED INTAKE
STUDIED FOR
SOWS, GILTS

Swine nutrition research is showing that producers might well take a new look at feeding practices for breed gilts and sows.

In many cases, gilts and sows are probably eating far more than necessary.

Restriction of feed intake seems to support satisfactory reproductive performance, if the feed intake is stepped up as pregnancy progresses.

Secondly, such restriction may lead to increase longevity of a sow in the breeding herd.

Professors R. J. Meade and L. E. Hanson, in the Department of Animal Husbandry at the University of Minnesota, recently finished two studies on this problem.

Earlier research had suggested that gains of gilts and sows during gestation needn't be a great deal more than the weight represented by the newborn litter and the products of conception.

Also, earlier results suggested that gilts and sows may require less total protein during gestation than the 0.9 pounds per head daily, commonly recommended.

In the first of two recent experiments, two levels of feeding and protein intake were compared among 36 gilts, averaging about 152 pounds at the start.

For each level, amount of feed intake and protein intake were increased as pregnancy progressed.

Past recommendations have called for 6 pounds of feed daily for bred gilts. But in this study, 4.5 pounds daily over 84 days prior to breeding did not restrict gains to a great extent. Average gain for these gilts was about a pound daily.

-more-

add 1 - feed intake

Similarly, the feeding sequence providing the least feed during gestation supported gains greater than those believed necessary. As a result, these gilts weighed over 300 pounds at first farrowing.

Gilts under the greatest restriction received the following amounts of feed: First 98 days, 4.5 pounds; 99 to 126 days, 3.5 pounds; 127 to 154 days, 4 pounds; 155 to 182 days, 4.8 pounds; and 183 to farrowing, 5.6 pounds.

Eleven sows from each of the feeding levels used in the first phase were fed in a second study.

Sows fed at the lower level throughout gestation in the first experiment had an average intake of 5.1 pounds per sow daily, 85 percent of the commonly recommended amount, through the next gestation. They gained 129 pounds each, compared with an average of 160 pounds per head among sows with an average daily intake of 5.8 pounds of feed.

Both amounts of total gain were well above the weight represented by the newborn litter and products of conception. And they were probably more than needed for satisfactory reproductive performance, which was excellent for all sows in the study.

Professors Meade and Hanson suggest that feed intake of bred gilts and sows can probably be restricted even more than practiced in these experiments, without interfering with satisfactory reproductive performance.

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Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
February 1, 1965

To all counties
Immediate release

WEED CONTROL PROGRAMS
CAN INCREASE 1965
CROP PROFITS

Improved weed control practices could easily be one of the most effective ways for farmers to increase crop profits in 1965.

And extension agronomist Gerald Miller at the University of Minnesota explains that cultural practices are still the most practical means of weed control in most cropping systems.

Chemicals can be used to control problem weed situations, he says, but they should be used only as supplements to such cultural practices as seedbed preparation, establishment of adequate stands, timely cultivations and mowing.

Miller points out that early cultivations are most effective for killing weeds. Early germinating weeds can be destroyed with a disk, field cultivator or harrow before planting if conventional tillage is used.

Preemergence chemicals are good insurance against early season weed competition and rainy weather that may delay cultivating. But he says in order to get top yields, preemergence treatments often need to be supplemented with early cultivation or postemergence sprays.

Several new chemical weed controls will be available for the first time this year, Miller says. But he advises farmers to try these chemicals on small, test areas to see how they perform.

Combinations of chemicals are becoming more and more popular, Miller reports. For example, a combination of atrazine and linuron in a one-to-one ratio has been cleared for use on corn as a preemergence treatment. Similarly, a combination of dicamba and MCPA has been cleared for use on wheat.

add 1 - weed control

Chemicals can be dangerous if handled carelessly, Miller warns. And if they are not applied as directed, they can be virtually ineffective. Thus, it is important that users of chemicals read the precautions on the label and apply the chemicals as directed.

Further information on weed control can be found in Extension Folder 212 titled "Cultural and Chemical Weed Control in Field Crops," (1965). Copies are available from county agricultural agents or through the Agricultural Bulletin Room, University of Minnesota, St. Paul, Minnesota.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
February 1, 1965

To all counties
ATT: HOME AGENTS
Immediate release

**RED CHERRIES
ARE GOOD BUYS
FOR FEBRUARY**

Abundant supplies of frozen and canned red cherries will provide the makings of pies and a variety of other colorful desserts for festive February meals.

Red tart cherries head the U. S. Department of Agriculture's list of plentiful foods for February. Good news is the fact that there are fewer pits in these cherries than ever before. Thanks to USDA standards and to the cherry industry's efforts to improve pitting, you can enjoy your cherry pie this year with fewer pits. Most packs now have less than one pit per 8 pounds of fruit.

Apples, prunes, canned ripe olives, broiler-fryer chicken, eggs and split peas complete the list of abundant foods for the month. All of them should be good buys.

Thanks to modern cold storage facilities, American families can continue to enjoy fresh, juicy apples from last fall's bumper crop. Controlled atmosphere in storage will bring apples with a fresh-picked flavor to consumers well into spring.

Still other fruits are abundantly available in dried and canned forms. Some 170,000 tons of dried prunes--well above the average and greater than last year's crop--are headed for market.

Supplies of ripe olives, in both cans and glass jars, are expected to reach an all-time high. The new pack of canned ripe olives comes on top of a large carry-over from 1963.

Among the best protein buys this month will be broiler-fryers and eggs. Because of the large supplies of chicken, consumers will find broiler-fryers offered frequently by retail stores as loss-leaders. The low egg prices should be an incentive to homemakers to go all out in treating the family to omelets, souffles and other interesting egg dishes. Nutritionists point out that eggs are not only an excellent protein food but also have the ability to do exciting things for other foods.

Dry peas, on the way to market in greater quantity than usual, should be a another budgetwise choice for food shoppers. Cooked with a ham bone, split peas make an appetizing soup that should whet cold weather appetites.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
February 1, 1965

To all counties
Immediate release

IN BRIEF.....

Changes in agribusiness were highlighted recently by Sherwood O. Berg, dean of the Institute of Agriculture at the University of Minnesota. He points out that farm production has increased 54 percent in the past two decades. In terms of cash farm marketings and value added to products, the agricultural business sector contributes about \$3.5 billion to the state's economy. But the "input mix" has changed considerably. Between 1940 and 1960, the amount of labor in agriculture declined 46 percent, while use of capital increased 90 percent. By 1975, purchases of inputs are expected to increase by a third while cash farm marketings are expected to increase by a fourth.

* * * *

Demands from industry for graduates of agriculture, forestry and home economics programs far exceeds supply, according to Keith McFarland, director of resident instruction for the Institute of Agriculture at the University of Minnesota. He says these professional opportunities would be fully in accord with the career wishes of thousands of young people from rural and urban backgrounds as well--if they had a full understanding of the opportunities. In agriculture, about 60 percent of the graduates enter private industry or business. In forestry, there is heavy demand for graduates in the forest products, merchandising and research areas. In home economics, great shortages of graduates exist in education and dietetics.

* * * *

What do farmers think about farm programs? What is the merit of "limited feeding" of market hogs? How have increased numbers of vacationers affected campsites in the Boundary Waters Canoe Area? These are among the topics discussed in the current issue of Minnesota Farm and Home Science, a publication of the University of Minnesota's Agricultural Experiment Station. Other topics: botulism in wildfowl, sweetclover resistance to weevil attack, early calfhood diseases, stem rust of oats, and fertilizer placement in relation to herbicide residues.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
February 2, 1965

Immediate release

TWO RESEARCH PROJECTS IN POULTRY AT UM RECEIVE ADDITIONAL SUPPORT

Two University of Minnesota research projects on turkeys, one dealing with a turkey health problem and the other with nutrition, recently received additional support from the U. S. Public Health Service.

A study of aortic rupture in turkeys received \$42,342, and a study of blood amino acid levels received \$21,984.

Professor Paul E. Waibel in the Department of Poultry Science is principal investigator for each project.

Aortic rupture has long been a problem in turkey production, and losses from the problem have been estimated to account for 2 percent of Minnesota's turkeys.

Basic causes of the problem are still unknown. It involves a rupture of the wall of the posterior aorta, followed by hemorrhaging and death.

The problem has often been viewed as due to high blood pressure or weakness of the aorta wall. Studies at Minnesota have dealt mostly with nutritional, biochemical, physiological and pathological aspects of the problem.

Findings to date indicate that certain tranquilizers and blood pressure-reducing drugs have some effect in delaying the onset of aortic rupture. One tranquilizer, reserpine, is currently used for this purpose by turkey producers.

Findings at Minnesota and other states indicate that dietary copper deficiency may result in aortic rupture.

A synthetic hormone, diethylstilbestrol, has been shown in Minnesota work to produce aortic rupture. However, these studies also showed that while the rupture was produced, blood pressure decreased. Therefore, some question has been cast on the role of blood pressure in cause of the disease.

(more)

add 1 -- turkey research

One of the more significant findings from histological studies is that weakening of the aorta can appear in turkey poults starting as early as three weeks of age. In the field, the problem has ordinarily not been detected until birds are about 8 weeks of age.

In new phases of the project, now in its 7th year, three separate strains of turkeys will be studied in terms of blood pressure, pathological and biochemical factors relating to the aortic rupture problem.

In the other project, scientists are using one of the newer techniques for studying amino acid requirements, among turkeys of all ages.

The scientists are using an analyzer to determine the levels of "free" amino acids in blood plasma and tissues, which then may be correlated with changes of amino acids in the diet.

This makes possible the simultaneous study of levels of many amino acids, even though only one may be changed in the diet. Amino acids are characterized by complex interrelationships; changing the dietary level of one may affect the blood level of that amino acid, and of others as well.

Analyzing the blood plasma level gives the researcher a complete picture of the amino acid level at a given time. It is much more efficient than the older trial-and-error methods of studying dietary requirements.

In conducting this research, the scientists are using protein-free diets containing pure amino acids as the only source of dietary nitrogen.

A laboratory designed for use of radioisotopes in nutrition and metabolism experiments is under construction to assist in these studies.

Others in the research on aortic rupture include Dr. J. H. Sautter, (co-principal investigator) head of the division of veterinary pathology and parasitology; Dr. Roger Ball, veterinary pathologist, and Laverne M. Krista, poultry scientist.

Others in the study on amino acids are Dr. David Snetsinger, poultry scientist and Kenneth E. Dunkelgod, graduate assistant in poultry science.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
Tel. 647-3205
February 2, 1965

(with sketch)

Immediate release

TWO-LEVEL HOUSE HAS FOUR BEDROOMS

If you're looking for a house plan for a sloping site, you may find the answer in a four-bedroom masonry house designed by architects and engineers of the U. S. Department of Agriculture's Cooperative Farm Building Plan Exchange (Plan No. 7151).

Part of the basement has full-size windows above grade. The basement plan contains a bedroom, a full bath, a recreation room and a utility area, with adequate space for workshop, storage for canned goods and a closet for work clothes. An outside entrance to the basement workroom permits washing up before going upstairs to the main part of the house.

The first floor includes a living room, a large, well lighted kitchen-dining room, three bedrooms with two closets for each one, and a bathroom.

The front door, which opens into a small entry at one end of the living room, is protected by a covered porch. Traffic from the front door to the kitchen and bedrooms is kept to this end of the living room. Also at this end of the living room are a coat closet and space for a built-in desk, a music unit or another closet.

The food preparation area of the kitchen is L-shaped and has been planned with recommended amounts of storage and work space. The dining table can be placed in front of the large window overlooking yard and garden.

The bathroom has space for two lavatories or one lavatory and additional counter space, as well as a storage cabinet for bathroom linens and supplies. A large linen closet and a closet for storing bedding are accessible from the corridor.

Descriptive leaflets of the plan are available from county extension offices.

Working drawings of this plan, number 7151, may be obtained for 75 cents from Blueprint Room, Department of Agricultural Engineering, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101. Money must accompany the order. Be sure to specify the number of the plan you are ordering.

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and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
February 2, 1965

Immediate release

WINNERS NAMED IN THE 4-H HOLSTEIN CONTEST

A sophomore boy and two freshman girls at the University of Minnesota have won the 1964 state 4-H Holstein contest.

Award winners are David Pierson, 19, Lake Elmo; Shirley Marti, 18, Sleepy Eye; and Patricia Schultz, 18, Faribault.

The junior Holstein champion program recognizes outstanding jobs done in 4-H and FFA dairy project work. The award is based on the Holstein herd which members have started, their records and their leadership in 4-H, according to Earl Bergerud, assistant state 4-H club leader at the University of Minnesota.

The Minnesota Holstein-Friesian Association will award prizes to the winners at their annual convention held in Rochester on March 6 in the Kahler Hotel.

Pierson, president of the Minnesota Junior Holstein Association, owns a herd of 13 registered Holsteins. Pierson has won placings on his exhibits at regional dairy days and district and state Black and White Shows and in the showmanship contest at the Minnesota State Fair. Other honors include the 4-H Key Award and a trip to National 4-H Club Congress.

A dairy research major, Pierson has received a number of scholarships. He is the son of Mr. and Mrs. Paul Pierson.

Miss Marti, a nine-year 4-H dairy project member, has built up a herd of six registered Holsteins. She has placed in the Minnesota State Fair showmanship contest and has given local and county dairy demonstrations.

She received the 4-H Key Award in 1963 and won a trip to the National 4-H Club Congress. She has participated actively in Future Homemakers of America, Future Teachers of America and in church youth groups.

The daughter of Mr. and Mrs. Cliver Marti, she is majoring in extension work at the University of Minnesota.

Miss Schultz is the owner of 10 registered Holsteins. She has completed 17 4-H dairy projects and has shown her animals for six years at the Rice County Fair and four years at the State Fair.

As president of the Junior Academy of Science, Miss Schultz has received trips to the National Science Fair in New Mexico, California and Baltimore.

The daughter of Mr. and Mrs. Edwin Schultz, Miss Schultz plans a career in veterinary medicine.

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65-40-smk

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
February 4, 1965

*For release at noon, *
*Friday, Feb. 5 *

EDUCATOR ASKS FARM PEOPLE TO INVEST MORE IN THE MIND

WINDOM, MINN.--An investment in education and training is one of the best investments for farm people, especially farm youths, an Iowa State University extension economist said here today (Friday, Feb. 5).

Dr. Eber Eldridge said that an investment in land may mean a 5 percent return. However, it has been shown that an investment in schooling can mean a 30 percent return to the individual.

Eldridge spoke at a leadership seminar in public affairs held here, sponsored by the University of Minnesota Agricultural Extension Service.

He said that, until recently, few people talked about developing quality in human resources. "Traditionally, emphasis has been on such things as gross national product, money investment, profits and employment as indicators of the health of the economy," he said.

"But," Eldridge said, "all these things only tend to measure the degree of human satisfaction, which is what we're really trying to achieve."

(more)

add 1 -- educator asks

He said that, more and more, people are talking about the necessity to invest in human resources if we are to have economic growth in the general economy and agriculture.

Farm people seem to invest less in the human factor than many other segments of the population, Eldridge noted. What is more, the educational level of the white farm population is not rising as fast as in some other groups.

He presented these figures: The schooling of the rural farm white person 25 years of age or older in 1950 averaged 8.8 years--about one year of high school. By 1960, the average was practically the same--8.9 years.

During the same period, urban white persons increased their average training from 10.5 to 11.5 years. In other words, many of them had completed high school. Urban and rural nonwhite persons still did not have as much formal education as the rural farm white in 1960, but they made rapid gains in the 10-year period.

Is investment in education really so important? Eldridge said he thought so.

Economic growth is an important goal of the nation, he said. These things all contribute to growth: (1) increasing productivity of resources, (2) effective allocation or distribution of resources and (3) sound economic policy.

Increased productivity comes through inventiveness and advancing competence. Creativity and higher job skills result when employed people are well-educated and carefully-trained. So investment in education pays off in productivity.

Good allocation of resources--or putting resources to work in their highest value use--calls for good information. If a worker is to find the occupation which will be of most value to him and society, he needs education and training. He needs to adapt to change. And changes in jobs there will be. It has been said that half of the children now in grade school will work in an occupation which doesn't exist today. There is also evidence that many of today's adult workers will have to be re-trained four to six times in the future just to keep pace with the changing, growing economy.

(more)

add 2 -- educator asks

Policy-makers need information and education on effective economic policy if recessions and depressions are to be made obsolete. They also need the support of their constituents if they are to implement such policy. Informed, knowledgeable people can help out here, too.

For these and other reasons, the Iowa State economist said he believed farm people should assign a high priority to investing more in education in the future. Perhaps spending more money for schools in rural areas will bring larger returns to agriculture in the long run than spending for farm land, buildings, equipment and production items, he said.

Eldridge said, however, that it is the responsibility of educators and policy-makers to make a greater effort to "sell" education and training throughout the country and, in particular, in rural areas.

The seminar, being held over a 5-week period, is being attended by some 60 community and agricultural leaders from a 12-county area of southwestern Minnesota. Previous sessions were held Jan. 20 and 27, and remaining sessions will be Feb. 19 and 25. Similar seminars are scheduled for Fergus Falls and Thief River Falls.

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65-41-pjt

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
February 8, 1965

To all counties
ATT: HOME AGENTS
Immediate release

MANY NEW
DEVELOPMENTS
IN FABRICS

Improvements in textiles in the next few years will be in modifications of existing fibers and continued improvements of new developments that have met with consumer acceptance.

Here are some of the new developments in textiles which are already appearing or will soon appear in consumer goods, as reported by Athelene Scheid, extension clothing specialist at the University of Minnesota:

. Sharp creases and pleats, durable to laundering, built into wash-wear garments. A delayed cure process developed by researchers is used to set the shape of the entire garment which dries very smooth and has a high degree of wrinkle resistance during wear. Slacks, trousers and work pants are being manufactured by this process in volume. All-cotton men's suits are in the development stage. Sport shirts, blouses and dresses will be in retail stores in large supply next spring and fall.

. Stretch fabrics. Garments, upholstery and slip cover fabrics and other articles made from stretch fabrics are appearing in all-cotton, all-wool, all-synthetic and various combinations of these fibers. All-cotton stretch fabrics are also available as piece goods. Many of the early fabrication problems, such as obtaining an adequate seam, are being overcome. Performance is being improved and standards of stretch for different classes of garments are being established.

. Shrink-resistant treatments of wool knit goods. Shrink-resistant yarns are obtained by treating an intermediate product in the manufacture of the worsted yarns, and when these yarns are knitted into fabrics the fabrics are shrink-resistant. Sweaters made from shrink-resistant yarns are beginning to appear on retail counters.

add 1 - new developments

. Mildew- , rot- and weather-resistant treatment for cotton. This treatment, which is low cost, is being applied commercially to outdoor fabrics. Hence, more durable tents, tarpaulins, sleeping bags, boat covers and other products subjected to outdoor exposure are becoming available to consumers.

. Flame-retardant treatments for cotton. Coats and trousers for firemen are being made of flame-retardant cotton. Flame-retardant articles being used in increasing quantities are patients' gowns, drapes in hospitals and industrial work uniforms. Other potential uses include mattresses, mattress tickings, bed linens and awnings.

-jbn-

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
February 8, 1965

To all counties

IN BRIEF.....

Computing and filing income tax at the end of the year shouldn't be the extent of a farmer's concern for his tax situation. Paul Hasbargen, University of Minnesota extension economist, points out that a good tax manager is one who "thinks taxes" all year around. Hasbargen advocates that income taxes, like many other costs, can be reduced by good tax management. He says that it isn't necessary for a farmer to be a tax expert, but that he should know enough about taxes to recognize the income tax aspects of a farm decision.

* * * *

Civil Defense wall posters for barns and milkhouses are now available from county agricultural agents. These posters provide specific suggestions for handling livestock following a nuclear emergency. County agents also have additional information concerning last minute fallout protection.

* * * *

A list of recommended varieties of fruits for Minnesota, designed primarily for the home fruit grower, is available in Horticulture Fact Sheet No. 3 published recently by the University of Minnesota Agricultural Extension Service. Titled "Fruits of Minnesota, 1965," the fact sheet lists varieties of fruits which are recommended on the basis of suitability for each of four districts in Minnesota. Suitability is based on hardiness, adaptability and usefulness. Copies of the fact sheet can be obtained from county agricultural agents or by writing to the Agricultural Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
February 8, 1965

To all counties
(First of two
articles on the
beef futures
market)

Immediate release

FUTURES, HEDGING
BECOME FAMILIAR
IN CATTLE TALK

Futures, hedging, and speculation may become common terms in the beef marketing business.

Will futures trading work for live beef cattle? You can get some stiff arguments, and the answer will probably come only through market experience, according to Dale Dahl and Kenneth Egertson, agricultural economists at the University of Minnesota.

Futures trading of live beef cattle began November 30, 1964 at the Chicago Mercantile Exchange. Some cattlemen welcome this development as a way to bring about some price stability and reduced uncertainty.

A cattle feeder may face this kind of problem. He may have a chance to buy a couple dozen yearling steers, averaging 650 pounds, for \$24 per hundred. He would feed them over winter and finish them to slaughter weight by June.

From his past experience, and knowledge of labor and feed costs, this cattleman might calculate that he needs to sell the finished cattle in June for, say, \$22.36 per hundred pounds to break even.

Selling for more would bring a profit; a lower price would mean a loss.

Historically, cattle feeders have had meager opportunities to guarantee themselves a certain selling price. They could review outlook information and operate on their best estimate. And that's about the best they can do.

But in recent years, slaughter prices often ran below the best predictions of many cattle feeders. Many suffered losses in spite of efficiency. Clearly, the problem of forecasting beef prices is far from solved.

add 1 - futures market

How could the futures market be a help?

Risk of loss by price change is basic to many kinds of agricultural production and marketing. Futures market transactions, for some commodities, allow shifting some of most of that risk to other people not directly involved in the product.

A futures market does not deal in physical commodities. It deals with promises to deliver or receive a commodity at some future time.

Futures contracts are bought and sold in much the same way that stocks are exchanged in the financial markets.

A futures contract specifies the quantity and quality of the product to be delivered, and the place and time of delivery. But this doesn't mean the product is actually delivered; in fact, actual delivery in many futures markets is rare.

People who deal on the futures market may be divided in two groups. "Speculators" are interested in futures contracts to make short-term financial gain as prices of futures rise and fall. They, then, accept price risks.

"Hedgers," on the other hand, deal with futures contracts to avoid risk of loss by price change. They generally have some commodity in possession, and wish to store it, transport it, or perform additional services on it before resale.

Hedging is a process whereby a purchase or sale on the cash market is countered by a simultaneous and opposite sale in the futures market. This has been common in food and feed grains, eggs, oils, cotton, wool, lard, and other products.

A local grain elevator is a familiar example. He buys grain and stores it until some future time. He wishes to make profitable use of his storage space, but is uncertain of the price for this grain in the future.

So to avoid possible loss by price change during the storage period, the operator sells a futures contract on that grain. This is a contract to deliver the stored grain in some future month.

-more-

add 2 - futures market

The price the operator receives includes the present cash price of the grain plus the storage costs added before delivery. Then the operator has two choices. He can let the futures contract mature and deliver on it, or he can buy an off-setting futures contract before maturity and sell on the cash market.

By delivery time, futures prices and cash prices are usually close to the same amount. But regardless of the level of those prices then, the elevator operator has made his storage cost differential and has protected himself from risk of loss by price change.

And, of course, the operator has ruled out any price gains he might have had if had not hedged.

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Next: Cattle Futures Market, Hedging Explained.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
February 8, 1965

To all counties
Immediate release

CROP DISEASES
REVIEWED FOR
1964 IN MINNESOTA

Except for a fungus disease of sugar beets and attacks of another fungus on grain crops in some fields, plant diseases did not take a heavy toll of Minnesota field crops in 1964.

Extension plant pathologist Herbert G. Johnson at the University of Minnesota points out that severity of plant diseases varies widely from year to year. For example, ear drop of corn was severe in 1964, but the precise cause of this trouble remains uncertain. Causes could include small and weak shanks due to drought and heat of summer, rotting of shanks following rains in September, and dry stalks and shanks near and during harvest.

In other words, the severe ear drop most likely resulted from an unusual series of events in 1964 weather, and is unlikely to repeat itself for several years.

Johnson summarizes 1964 evidence on a variety of field crop diseases:

Corn stalk rot. In early fall 1964, some corn plant specimens from southwestern Minnesota had died prematurely. They were stunted in size and had poor fill of kernels. The trouble was diagnosed as stalk rot in connection with corn borer tunnels.

Sunflower diseases. Again, there is evidence of year-to-year fluctuation. Incidence of downy mildew of sunflower; 1964 was higher in one area and lower in another, compared with 1963. The fungus is soil borne and persists in the soil. Thus, areas troubled in the past may have trouble again. The sclerotinia disease of sunflowers showed lower incidence in 1964; than in 1963. Crop rotation of four to five years between crops of sunflowers is highly recommended.

add 1 - crop diseases

Cercospora Leaf Spot of Sugar Beet. This fungus disease of 1964 had its highest incidence to date in Minnesota. It overwinters in plant refuse. It generally starts earlier and becomes most severe in fields adjacent to where sugar beets were grown the previous year. Control involves spraying fungicides. The cost of control is roughly equal to the value of one ton of beet roots. Yield increases of two or more tons of beet roots were generally obtained from good spray programs in 1964.

Phytophthora Root Rot of Soybeans. This disease was identified for the first time in Minnesota in 1964, but no widespread occurrence is expected during 1965. Three of the newer soybean varieties are resistant to the disease, but seed of these varieties are in short supply for 1965. These resistant varieties are Harosoy 63, Chippewa 64, and Lindarin 63.

Oat Rusts. Conditions for rust infection were generally unfavorable in the early 1964 season, but some late plantings and volunteer plants were severely rusted. It is expected to cause trouble in future years. Races of both crown rust and black stem rust of oats, present in the North Central Region, severely attack all recommended varieties. Highly resistant varieties are not available now, but breeding work is progressing.

Flax Rust. Race 300 of flax rust was found in North Dakota and southern Canada in 1964, but was not particularly damaging. The rust was not found in Minnesota. Susceptible varieties -- Marine-62 and Army-- were planted in reduced amounts in 1964. Eliminating them will reduce the chances of new and more virulent races occurring.

Pasmo of Flax. This disease attacks stems, leaves and bolls, and is generally most severe as the crop nears maturity. Many seeds failed to develop or filled poorly because of the disease.

Alfalfa Leaf Spot. Three or four different fungi cause leaf spots in alfalfa in Minnesota. No specific control exists, but recommendations are 1) cut crops on time and 2) fertilize according to recommendations from soil tests.

Alfalfa Bacterial Wilt. Alfalfa varieties recommended by the University's Agricultural Experiment Station have a high degree of resistance to this disease.

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
February 8, 1965

To all counties
(Second of two
articles on the
beef futures
market)

Immediate release

CATTLE FUTURES
MARKET, HEDGING
ARE EXPLAINED

Futures trading of live cattle may relieve some of the anxieties of a cattleman who buys feeder steers in October to feed out for the market next June.

In effect, the futures market may allow him to settle on a contracted future price as soon as he puts the steers in his feedlot. Thus, it may serve as protection against changes in price over time.

According to agricultural economists Dale Dahl and Kenneth Egertson at the University of Minnesota, the beef futures market works this way.

The cattle feeder, in futures market language, is a potential hedger. He has an inventory of cattle for future sale, and he is concerned about receiving a price at that future time which will return him a profit above the cost of raising and finishing those cattle.

By dealing in the futures market, he may sell a futures contract which specifies a given amount of live beef at a given weight per animal and meeting certain grade and yield requirements. He offers this futures contract, usually, as soon as he buys the feeder cattle--but he may sell it any time afterward.

This contract is bought on the market by a speculator, who agrees to take delivery of the cattle, if the seller chooses to deliver, during the delivery months.

The futures market can operate only to the extent that there are speculators--persons willing to buy futures contracts and accept the risks which sellers (in this case cattle feeders) are trying to reduce.

-more-

add 1 - cattle futures

The futures price paid in October is the cash price plus other associated costs. Consider the cattle feeder who buys 23 yearlings, and estimates that he needs to receive \$22.36 per hundred pounds at market time to cover the purchase price, plus feedlot costs.

Suppose, further, that June futures are selling in October at \$22.36 per hundred pounds. Then, the feeder could sell a June futures contract and assure himself of covering his costs next June.

The cattleman, in selling the futures contract, obligates himself to either deliver on that contract before it expires, or to buy an offsetting contract of the same futures month just before maturity, and at the market price current then.

In grain hedges, for example, futures contract sellers take the second choice about 99 percent of the time.

Futures prices are a current estimate of what cash prices will be. As a general rule, this estimate can be made by adding storage, processing or transportation costs to the current cash price. As time elapses, the storage, processing and transport costs become less and less--until in the futures month, cash and futures prices are nearly the same.

If the cash price next June is, in fact, \$22.36, the feeder would be in the same position as he would have been in without hedging.

If choice cattle prices in June are below \$22.36, the feeder has prevented a loss through hedging, and the cash and futures transactions offset each other.

On the other hand, if choice cattle feeder prices in June are above \$22.36, the hedger still has assured himself of \$22.36, and the June cash and futures transactions cancel out any gains in that month.

Thus, hedging on the futures market assures the feeder of a certain price. In effect, it is much like working out a contracted future price. It protects the cattleman from lower cash prices, and prevents him from benefitting from prices which may be higher than the futures price quoted last October.

add 2 - cattle futures

Hedging in the futures market has some other costs. First, there is a brokerage fee. Second, there is a fee for inspection and yardage, which must be covered by the feeder if the livestock are delivered. Third is the interest on margin deposits, where the feeder must borrow to provide the margin which the broker requires.

The question remains whether futures trading will have long-range benefits for cattle producers. Proper evaluation can come only after several months of market activity, the economists say.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
February 8, 1965

To all counties
4-H NEWS
Immediate release

HORSE PROJECT
OPEN TO
4-H MEMBERS

Do you know the difference between a light horse, pony or draft horse? Do you know the different breeds of horses? What is a gait?

Boys and girls enrolled in the 4-H horse project learn the answers to these questions and many others.

The Minnesota 4-H horse project helps club members gain a knowledge of horsemanship, learn safety precautions, and helps promote a greater love for animals. The 4-H'er also develops citizenship and leadership in his 4-H club.

To enroll in the horse project a boy or girl should be 10-19 years of age, attend meetings of the club, own or manage an animal and keep a project record.

Mares and geldings are suitable for this project. The member must feed, care for and train the horse himself.

Beginners in the horse project are responsible for the health and well-being of the animal. The younger member should develop regular habits in feeding and caring for his mount. A record and project bulletin covers some of the most important principles of good horse husbandry.

Closely connected with the project are the horse shows. In regional horse shows and in county shows 4-H members are divided into two age groups, 10-13 and 14-19. A member enters his horse in the "halter" or "performance" classes. The exhibitor prepares his own animal for competition. Members may also enter the gymkhana or "fun" class where they test their horsemanship in such games as the barrel roll or egg and spoon race.

Awards are given to the 4-H'ers who place in the blue ribbon group in either the halter or performance classes at the county event. A small trophy is awarded to the top halter showman.

For more information on the horse project consult your county agent.

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

For release at 2 p.m.
Friday, Feb. 5

BUSINESS SIDE OF AGRIBUSINESS TO CONTINUE GROWING

WINDOM--Trends toward agricultural specialization, fewer and larger farms and greater participation in agribusiness by off-farm firms will continue in coming decades, a University of Minnesota agricultural economist said today.

Dale Dahl told a Leadership Seminar in Public Affairs that the substitution of capital for labor will continue, meaning that more people will be leaving farms even though total farm production will probably continue rising.

He pointed out that between 1947-49 and 1959, the total value of agricultural inputs (supplies and services for farming) increased by only three percent, while production increased about 30 percent.

This reflected a sharp increase in efficiency, he said, and he saw no reason why that production increase won't be matched in the coming decade.

He pointed out that while total value of inputs has changed little, the form of the "input mix" in agriculture has changed dramatically.

During the period from 1947-49 to 1960, labor in agriculture declined about 37 percent, while the amount of purchased capital increased about the same amount.

In early days, he said, nearly all the inputs for agriculture -- seed, feed, fertilizer and power--were provided by the farmer himself. Since 1800, however, much of the input side of agriculture has moved off the farm, leading to tremendous developments in farm supply industries.

Nonfarm agribusiness of all kinds has been growing. But Dahl also stressed the different kinds of growth in agricultural output (marketing, storage, processing) industries, as contrasted with input businesses.

The input industries may experience still more functional growth, as well as expansion within each kind of service. That is, more functions formerly performed.

(more)

agribusiness -- add 1

on the farm are still being moved to off-farm industries'. Feed and seed production are examples.

In the case of output industries, he said, the bulk of the functions have already moved off the farm.

Pointing to other illustrations of purchased inputs, Dahl pointed out that purchases of fertilizer and lime in the U.S. increased 33 percent between 1947-49 and 1960. Use of mechanical power and machinery increased 41 percent in that period.

This shift in the input mix has meant sharp changes in agribusiness employment, Dahl said. Between 1947 and 1954, employment in farming dropped from 10 million to 8 million. Meanwhile, employment in farm supply industries increased from 5 to 6 million, and employment in output industries went from 9.5 to 10 million.

Dahl foresaw continued adoption of new technology on farms as they grow larger and more specialized. And specialization itself may still have a long way to go, he added. While many functions have already left the farm, many on-farm functions may also be split.

For example, Dahl pointed out that animal production and crop production are quite distinct functions, and are likely to become more and more separate in the future. And, within animal agriculture, raising and breeding is likely to become more separated from raising and feeding.

As an example, he said that about 45 percent of the slaughter animals in 1950 came out of feedlots, which are more specialized operations. By 1963, that percentage had increased to about 60 percent.

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65-42-pjt

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
February 9, 1965

Immediate release

BAKE AND FREEZE A CHERRY PIE

When you dip into the plentiful supply of canned and frozen cherries this month to make a cherry pie, bake several at a time--and store one in your freezer.

That suggestion comes from Mrs. Shirley Munson, in charge of the University of Minnesota's food processing laboratory.

Mrs. Munson is one of the authors of a newly revised University extension publication, Freezing Foods for Home Use, available from county extension offices or from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101. The free publication contains the latest directions on freezing baked and cooked foods, fruits, vegetables, red meats, poultry and fish. The information is based on research conducted in the University's food processing laboratory under Mrs. Munson's direction.

Either baked or unbaked pies are satisfactory for freezing, Mrs. Munson says. However, tests in the University's food processing laboratory show that the quality of the baked pies is usually superior to the unbaked. A disadvantage of the unbaked pie is that the lower crust may absorb juices from the filling and become soggy.

For a clear, bright pie filling, Mrs. Munson recommends thickening the cherries with tapioca or cornstarch. Flour tends to turn lumpy and gray upon freezing.

If you use shiny lightweight aluminum pie plates for freezing, bake the pie on a cookie sheet on the lowest shelf of the oven.

As soon as the baked pie is cool, place it in the freezer, keeping it level while it is freezing. When it is frozen, remove it from the freezer, wrap, label and date it and return it to the freezer.

Before serving a frozen baked pie, thaw it in the wrapping at room temperature for half an hour, then unwrap and heat in a 350°F. oven on the lowest shelf for half an hour or until it is just warm.

Baked cherry pies will store well in the freezer for 4 to 6 months.

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65-44-jbn

Department of Information
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Immediate release

RESOURCE DEVELOPMENT GROUP PLANS MEETING AT HINCKLEY

HINCKLEY, MINN.--The Northern Great Lakes Resource Development Committee will meet here Feb. 17-18 in the Cassidy Motel, according to Edward Becker, Northeast District Extension Supervisor for the University of Minnesota.

The committee was organized as an outgrowth of the Land and People Conference held in Duluth in September of 1963. Its purpose is to assist the development of natural, human and economic resources in the 81-county Northern Great Lakes area of Minnesota, Wisconsin and Michigan.

On the agenda for Wednesday will be a discussion of the Farm Credit Administration, national park developments, the Economic Opportunity Act and the leasing policy on state and federal lands. The election of officers will conclude the first day's session.

On Thursday, committee reports will be presented, followed by discussion of natural resource studies and the Wild River Project. The meeting is scheduled to adjourn around 3 p.m.

Becker expects nearly all of the 21 citizen committee members from the three states to attend along with representatives from Michigan State University, the University of Wisconsin and the University of Minnesota.

He said personnel from other state and federal agencies have also been invited to attend the sessions.

Committee members from Minnesota are Chester Martin, Blackduck; John Waisanen, Moose Lake; Sen. Ben. Patterson, Deer River; Ed Wold, Aitkin; Louis Brabec, Finlayson; John Rife, Sebeka; Onno Beaver, Bagley; and Charles Witte, Cloquet.

Previous meetings of the committee have been held in Duluth; Iron Mountain, Mich. ; and Rhinelander, Wis.

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43-65-vak

Department of Information
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Immediate release

WINNERS NAMED IN CREATIVE WRITING COMPETITION

Eight winners have been named in the first creative writing competition held as one phase of this year's University of Minnesota Town/Country Art Show on the St. Paul Campus.

Winners in the short-short story contest and the titles of their entries are Don Ahern, Willmar, "Daddy's Crying"; D. E. Miller, Willmar, "Concert in the Park"; Gladys Jo Estenson, Northfield, "The Clay Marbles"; Mrs. Robert Frederickson, Detroit Lakes, "To Love and Let Go"; Carrol L. Kelly, Brooklyn Park, "The Chinese Snuff Bottle"; Helen A. Knievel, Wayzata, "Solitaire"; Betty L. Meyer, Mankato, "The Red-Eub Tree"; and Paul Summer, Ely, "Le Kaiser."

The winning entries were selected from among 68 short-short stories submitted, according to A. Russell Barton, art show coordinator. Contestants were from 48 different towns in 33 counties ranging from Pennington County in the north to Faribault County in the south. Young people as well as senior citizens were represented in the competition, which was open to amateur writers of high school age or over who are residents of Minnesota communities of 25,000 population or less.

The eight stories will be reproduced in a limited edition and offered to visitors at the time of the annual Town/Country Art Show on the St. Paul Campus March 14-April 2.

The creative writing competition was sponsored by the Department of Rhetoric of the University's College of Agriculture, Forestry and Home Economics. Judges were Richard O. Horberg, Andrew King and William Marchand, members of the department.

Horberg, King and Marchand will conduct a seminar on creative writing during the final week of the Town/Country Art Show.

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Immediate release

ENTRY DATES FOR TOWN/COUNTRY ART SHOW A MONTH AWAY

Dates for entering exhibits in the University of Minnesota's 14th annual Town/Country Art Show on the St. Paul Campus are less than a month away - March 1 - March 6.

This reminder to rural artists comes from A. Russell Barton, coordinator of the show. Any amateur painter or sculptor, high school age or over, living in rural Minnesota or in a Minnesota town of 25,000 or less is eligible to exhibit one painting and one piece of sculpture, but no more than one in either medium. The entry must be a recent original work -- not a copy -- in any type of painting or sculpture. It should not have been exhibited at any previous Minnesota Town/Country Art Show, however. Photographs are not accepted.

Art works may be delivered in person or by mail to the St. Paul Campus Student Center between March 1 and March 6. Registration blanks and entry rules are available now from Minnesota Town/Country Art Show, Institute of Agriculture, University of Minnesota, St. Paul, Minn., 55101 or by calling 647-3211. Entry fee is \$2.

Merit award ribbons will be given to artists deserving special recognition or encouragement. The award exhibits, to be selected by a committee of qualified judges, will be shown at the American-Swedish Institute in Minneapolis April 11-May 9.

Interest in the annual show has been growing among rural people every year, Barton says. From 47 the first year the number of exhibitors had grown to more than 300 last year.

The art show will be open to the public March 14-April 2. A special four-day program of gallery tours, lectures and demonstrations by artists, a writers' seminar and a luncheon and business meeting of the Minnesota Rural Artists' Association have been planned for the final week, beginning March 30.

The Minnesota Town/Country Art show is presented each year by the Department of Agricultural Short Courses with the sponsorship of the Agricultural Extension Service and the General Extension Division of the University of Minnesota.

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65-46-jbn

Department of Information
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St. Paul 55101 -- Tel. 647-3205
February 10, 1965

*For release after 1 p.m., *
*Thursday, Feb. 11 *

UM DEAN PREDICTS MORE FREEDOM IN FOREIGN TRADE

DES MOINES, IOWA--Sherwood C. Berg, dean of the Institute of Agriculture at the University of Minnesota, predicted today that "the way toward even greater freedom in foreign trade will be blazed in the years ahead."

Speaking at the 27th Annual National Farm Institute in Des Moines, Io., Berg said that freer trade is not only attainable, but that there is overwhelming evidence that it is considered desirable.

But if present and future trade negotiations are to be successful, he explained, the close interrelationships between farm programs and trade will require negotiators to be concerned with such things as price support levels, direct and indirect subsidies and provisions that tend to encourage trade output increases.

Pointing to the farmer's growing stake in foreign trade, Berg said that farm people, farm organizations and agribusiness firms have a long and continuing interest in trade policy.

(more)

add 1 -- Berg

All in all, he said, farmers today probably exert greater influence and cause greater concern in the conduct of U. S. foreign affairs than at any time in our history.

"The new position of the farmer in this country on the stage of foreign affairs is due in part to the vast agricultural surpluses we have generated at the present time," Berg said, "and the manner and means that we use to dispose of them."

Berg listed three conditions that exist today which tend to present difficulties to our farm programs and foreign trade.

The first is a highly productive national agricultural plant that requires--for normal operation--a large volume of annual exports in wheat, feed grains, soybeans, fats and oils as well as cotton, tobacco and other commodities.

The second is a price and income support program to protect the incomes of commercial farmers that holds the prices of most farm commodities well above the free market levels in the world economy.

The third condition that causes difficulty to our farm programs and foreign trade is the fact that countries all over the world have, and continue to erect, barriers to free trade, to control foreign exchange expenditures and to engage in governmentally directed trade.

Berg said that we must remember "that these interferences with trade are not desired in themselves, but only as means for achieving the objectives of domestic agricultural policies."

But the picture is not completely dark, he added. Under the auspices of the General Agreement on Tariffs and Trades and other international agencies, there has been reductions in tariffs and eliminations of trade barriers in the post-war period.

Berg said he is confident that under the powers of the Trade Expansion Act and the leadership in our producers group, our commodity trade organization, our general farm organizations and under our secretaries of agriculture and state that greater freedom in foreign trade will result.

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February 10, 1965

*For release at noon, *
*Thursday, Feb. 11 *

RESEARCH ON EWE FEEDING REPORTED AT FEEDERS DAY

MORRIS, MINN.--Sheepmen were told here today that they can increase profits and spend less time on daily chores simply by reducing the number of feedings from once daily to three times a week.

University of Minnesota animal scientists, R. M. Jordan and H. E. Hanke, speaking at the 38th Annual Sheep and Lamb Feeders Day, said that studies conducted over the past several years show that frequency of feeding has no bearing on weight gains, lamb birth weight or fleece weights.

Jordan is headquartered on the St. Paul Campus, and Hanke at the West Central School and Experiment Station, Morris. They told the group that they had also explored the possibility of feeding sheep hay pellets in smaller amounts than usual. This is possible, they said, but keep an eye on pelleting costs.

A study conducted during the past year compared the effect of feeding alfalfa hay, alfalfa hay pellets at both 60- and 80-percent of the regular alfalfa weight, and hay-beet pulp pellets.

(more)

add 1 -- ewe feeding

Results show that in order to feed ewes pelleted hay at the 80-percent level for the same cost as long hay, the cost of pelleting cannot exceed \$5 per ton when the cost of hay is \$20 per ton. If a ton of hay costs \$30, then the pelleting cost cannot exceed \$7 per ton.

Concerning weight gains, the study showed that ewes fed alfalfa hay or the 80-percent level of alfalfa pellets gained slightly more during the entire experimental period than did those in the other two groups.

While fleece weights, lambing percentage and birth weights did not appear to be affected by the various feeding methods, ewes on hay pellets or hay-beet rations consumed up to 8-10 times more salt and minerals than those on long hay.

Feed costs did vary slightly among the four types of feed rations. Hay-beet pulp rations were lowest at 3.6 cents per pound. Hay pellets at the 80-percent level were the most costly at 5.7 cents per pound when the pelleting charge was \$10.

Reporting on a study conducted during the past feeding season, the researchers said that results show that by replacing half the silage and hay with shelled corn, ewes will gain more than when they are on high silage rations.

In the study ewes were fed different combinations of alfalfa-brome grass silage rations, or high corn-low silage rations. Jordan and Hanke told the sheepmen that as a rule, 1 pound of corn will usually equal .8 pounds of hay and 3 pounds of silage.

It was also found that silage and cold weather are a bad combination, especially when ewes in the last month of gestation are concerned. Results show that during cold or severe weather the ewes were reluctant to eat since much of the silage was partially frozen.

The researchers said that this points up the extreme importance of feeding ewes supplemental grain rations, especially during the last month of gestation when their capacity to eat a bulky ration is limited.

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February 11, 1965

Immediate release

STUDY OF STAPHYLOCOCCAL TOXINS RECEIVES ADDITIONAL SUPPORT

One goal of public health research is an effective immunizing or chemotherapeutic agent for staphylococcal infection.

But before such an agent can be developed, scientists must know more about "staph" infection itself--the toxins and how they produce infections.

Some fundamental progress in gaining such knowledge has been made through research in the College of Veterinary Medicine at the University of Minnesota.

The project, led by Drs. Robert K. Lindorfer and Keith I. Loken, recently received \$24,637 in additional support from the U. S. Public Health Service.

Major accomplishments of the research to date involve isolating and characterizing the staphylococcal toxins.

Staphylococcal infection has presented a special challenge to scientists. When penicillin was first used to treat it, only a few strains of Staphylococcus aureus were found with natural resistance to penicillin.

However, in less than 15 years, the number of strains of this organism which are resistant to penicillin has increased markedly. Furthermore, each new antibiotic for treating staphylococcal infection has given rise to resistant strains.

Until recent years, relatively little research was done to identify the products of staphylococci which give them their ability to establish infection and cause lethal damage.

These bacteria produce some 20 different substances, among them a substance known as alpha hemolysin, which attacks red blood cells.

A central question raised by Drs. Lindorfer and Loken was whether the alpha toxin has more than hemolytic activity. Other aspects of staphylococcal infection include dermonecrotic activity (production of skin lesions); lethal; and leucocidal activity (killing white blood cells).

Might these other kinds of activity also be produced by alpha hemolysin?

(more)

add 1 -- staphylococcal toxins

Extensive studies indicated that such is the case. Using electrophoretic techniques, the investigators isolated and purified the alpha toxin. They determined that this toxin alone could be responsible for all four kinds of activity in experimental animals.

The purity of the alpha toxin was confirmed by three rigorous tests--diffusion in agar culture, immunoelectrophoresis (testing in an electrical field) and spinning in an ultracentrifuge.

There was still another test for purity of alpha hemolysin. Rabbits immunized with this substance apparently produced antibodies for the alpha hemolysin only. If other substances had been present, other kinds of antibodies would be expected.

The analysis went further. The molecular weight of the toxin was estimated by ultracentrifugation and by chemical assay. Also, the scientists established the amino acid content of the alpha toxin.

Alpha hemolysin, of course, is only one of the substances produced by staphylococci. Another is beta hemolysin, which Dr. Lindorfer and his colleagues have also studied, finding that two beta hemolysins exist instead of one. The researchers also established the optimal conditions for production of beta hemolysin.

This research, proving to be especially fruitful in improving the understanding of staphylococcal toxins, is continuing in related directions. Currently, attempts are being made to learn whether alpha toxin is also responsible for damaging the blood platelets of man and animals.

The researchers are studying the leucocidal and platelet damaging potential of beta hemolysin and are seeking the optimal conditions for production of delta hemolysin, still another substance. Only through such understanding, the investigators say, can there be a rational basis for developing chemotherapeutic or immunizing agents.

Other members of the research team include Drs. M. Manohar and S. K. Maheshwaran.

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February 11, 1965

Immediate release

NEW POTATO VARIETY INTRODUCED BY U

A new potato variety, called Anoka, has been developed by the Department of Horticultural Science at the University of Minnesota and is being introduced this spring.

Anoka is a white potato, elliptical toround in shape with very shallow eyes. The skin is smooth and white. Uniformity in size and shape of the potato is one of the outstanding characteristics of this variety, according to O. C. Turnquist, University extension horticulturist and professor of horticultural science, co-leader with Associate Professor Florian I. Lauer in development of Anoka. Because of the uniformity of size and shape, a crop of Anoka produces a high percentage of U. S. number one grade potatoes.

Of special interest to consumers is the fact that Anoka is a good potato for cooking, mashing and baking. When cooked, the potatoes do not become gray upon standing. Because of the shallow eyes, there is little waste in peeling. The uniform size of the potatoes in a market pack of Anoka also has appeal to consumers, Turnquist says.

Anoka is early maturing, similar to the Irish Cobbler and Cherokee. Its yielding ability is higher than Cherokee but not as high as Irish Cobbler.

In 1964 five and a half acres of Anoka were planted by Minnesota certified seed growers. The University of Minnesota has no seed stock available but information about sources of seed may be secured from the Division of Seed Certification, Minnesota Department of Agriculture, 620 State Office Building, St. Paul 55101.

Further details about the new potato variety are contained in Miscellaneous Report 59, Anoka, a New Potato Variety. Copies of the report are available from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101.

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St. Paul 55101 -- Tel. 647-3205
February 11, 1965

Immediate release

INSTITUTE OF AGRICULTURE CALENDAR

FEBRUARY

- 8-19 Lumbermen's Short Course, St. Paul Campus.
16 Barrow Show, Montevideo.
Agronomy Corn Breeding Conference, St. Paul Campus.
17 Grain Grading and Marketing School, Ormsby.
18-20 Spring Barrow Show, Albert Lea.
19 Itasca County Seed and Feed Conference, Grand Rapids.
21-27 University of Minnesota Week.
22-28 Red River Valley Winter Shows and Northwest School Farmers
Week, Crookston.
24 Institute for Town and Country Churches, Fergus Falls.
24-25 Beekeepers Management Short Course, Morris.
25 Institute for Town and Country Churches, Crookston.
25-26 Beekeepers Management Short Course, Crookston.
27 Southwest Barrow Show, Windom.
East Central Barrow Show, Forest Lake.

Continuing Events:

Extension Beef Management Schools: Olivia, Feb. 17, 24; Red Lake Falls, Feb. 18.

Extension Dairy Management Schools: Tyler, Feb. 18; Windom, Feb. 17; Waseca, Feb. 18; Delano, Feb. 18, 25; Foley, Feb. 17.

Extension Rural Urban Seminars: Windom, Feb. 19, 25; Fergus Falls, Feb. 18; Thief River Falls, Feb. 17.

Extension Soils and Agronomy Workshops: Zumbrota, Feb. 17, 24; Stewart, Feb. 18; Eden Valley, Feb. 18, 25; Princeton, Feb. 19, 26; Perham, Feb. 16, 23.

Extension Swine Management Schools: Lamberton, Feb. 18; Mountain Lake, Feb. 16; Montevideo, Feb. 16; Olivia, Feb. 18; Dassel, Feb. 17, 24; Princeton, Feb. 16, 23; Blue Earth, Feb. 17.

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
February 15, 1965

To all counties
ATT: HOME AGENTS
Immediate release

PUT COOKED FOODS
IN FREEZER FOR
QUICK MEALS

When the supply of fruits, vegetables and meat gets low in the freezer, it's a good time to fill the empty space with cooked and baked foods for quick-to-prepare meals on busy days.

A freezer that's filled only once a year will not give the satisfaction of a freezer that's kept nearly full the year-round. Studies show that the higher the rate of turnover in the freezer, the lower the cost per pound of frozen food.

Preparing a double recipe of a casserole, making two pies or two cakes and putting one in the freezer is a practice of many homemakers.

But for top quality and most economical use of freezer space, plan to use these pre-cooked main dishes and baked foods within several months, Mrs. Shirley Munson, in charge of the University of Minnesota's food processing laboratory, advises. Many foods lose their distinctive flavors after 3 to 4 months of storage unless held at -10° F. or lower.

Mrs. Munson gives a few rules to keep in mind in freezing cooked foods:

. Avoid overcooking foods to be frozen. Cook vegetables only partially or the subsequent freezing and heating will make them mushy and unattractive. Meat should be tender but firm -- not overdone.

. Don't add cloves or garlic to foods to be frozen, since these flavors become stronger during storage. Onions gradually lose their flavor.

. Avoid freezing diced or cubed potatoes in stew and other main dishes; they become mushy and grainy.

. Cool cooked foods promptly for freezing by placing the saucepan of cooked food in a large pan of ice water. Keep the saucepan covered to reduce loss of aroma and to prevent contamination.

add 1 - quick meals

. Package immediately after cooling. Pack all types of cooked foods as solidly as possible to avoid air spaces. Gravy and sauces are desirable with meats and vegetables to fill air spaces. Baking dishes that suit the size of the family are convenient to use for freezing, since the dish can be taken directly from the freezer to the oven.

. Label and date each container.

Further information on freezing ready-to-eat foods is available in a newly revised University publication, Extension Bulletin 244, Freezing Food for Home Use. Get a copy at your county extension office.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
February 15, 1965

To all counties
4-H NEWS
Immediate release

PHOTOGRAPHY
SHOWS 4-H
IN ACTION

Let the pictures do the talking. Snapshots tell the story best whether you're having a birthday, on a trip or working with your 4-H project.

4-H'ers in Minnesota are now participating in the photography project. Snapshots accompany news stories and window displays telling the story of 4-H'ers building stronger communities.

The objectives of the photography project are to provide an interesting activity or project, introduce 4-H members to a useful hobby or profession, develop skills in taking and using pictures, gain an appreciation of photography, observe and appreciate surroundings and provide experience in recording situations in picture form for study or reference.

The project is divided into four phases with Minnesota presently offering units one, two and three for all 4-H members. Accurate and complete leader and member manuals accompany each project unit.

Unit one covers basic camera operations and elementary picture taking. Members need only to have a camera with a fixed focus and fixed shutter speed. 4-H'ers are required to submit black and white pictures, record costs, mount pictures and start a negative file. As a group project the members may want to prepare an exhibit for the public.

Unit two emphasizes picture story telling, basic picture composition, use of light, picture evaluation and an introduction to adjustable and automatic cameras.

The adjustable camera, various films and the relationship between light and exposure are a part of unit three. Members learn techniques of taking close-up pictures, colored slides and making contact prints.

-more-

add 1 - photography

Photography can supplement other projects, says county agent _____
_____. Pictures can improve reports of any 4-H project or activity.
With the experiences gained in photography (one, two and three,) the 4-H'er can
record all details, important changes and shoot "before" and "after" pictures.
The member can build his photography project and keep track of his other projects
by mounting the pictures in an album.

-smk-

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
February 15, 1965

To all counties

Immediate release

IN BRIEF.....

Results of the hybrid corn performance trials conducted in the state last year were published recently by the Agricultural Experiment Station at the University of Minnesota. The report, authored by R. H. Peterson and J. C. Sentz of the Department of Agronomy and Plant Genetics, contains the results of comparative performance of 109 commercially available corn hybrids. Copies of the report, titled "Minnesota 1964 Hybrid Corn Performance Trials," are available from county extension offices or from the Agricultural Bulletin Room, University of Minnesota, St. Paul, Minnesota. Ask for Miscellaneous Report 28.

* * * *

Hog producers who will have sows farrowing this spring should check the records of each sow to determine exactly when she is due. The next step, according to Charles Christians, extension animal husbandman at the University of Minnesota, is to disinfect the farrowing pen and clean up the sow before she farrows. Producers should have an ample supply of either intramuscular or oral iron compound on hand. Once the sow farrows, her feed should be cut back so she doesn't give too much milk. But she should have plenty of fresh water in front of her at all times.

* * * *

Sod production: There has been increasing interest over the past several years in the production of cultured sod. And C. G. Hard, extension horticulturist at the University of Minnesota, advises would-be sod producers that in order to be successful, it is necessary to grow quality sod--sod that is dense, free from weeds and debris and harvested properly. In addition to knowing how to grow and market sod, he says it is equally important to know how to make contract agreements for getting sod to the consumer.

* * * *

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
February 15, 1965

To all counties
Immediate release

**SORGHUM-SUDANGRASS
HYBRIDS ARE USEFUL
FORAGE SUPPLEMENT**

Sorghum-sudangrass hybrids are gaining widespread use in Minnesota as a supplemental forage, mainly because of their rapid growth during the summer months.

Agronomists at the University of Minnesota explain that these hybrids can provide supplemental grazing as well as green chop in midsummer when many permanent pastures are supplying little grazing.

A. R. Schmid, associate professor of agronomy and plant genetics, and extension agronomist James R. Justin point out that sorghums--including sudangrass and the hybrids--are generally more drought resistant than corn and several other traditionally grown feed crops.

Many acres of sorghum-sudangrass hybrids were grown for silage last year. The agronomists explain that much of this acreage was planted because it did not count against the feed grain acres of a farm as did corn or small grains.

Sudangrass and the hybrids can be used for hay, but are difficult to dry because of heavy stems. Also, they do not make hay of as high quality as brome grass or timothy or combinations of either with legumes.

Likewise, the silage cannot be expected to contain the feeding value of good corn silage, even though the hybrids yield large tonnages of silage per acre. Forage sorghums normally make better quality silage than sorghum-sudangrass hybrids, but corn makes better silage than do the sorghums.

In order to get two or more cuttings in one season, there is a tendency to harvest hybrids for silage before they head. But Schmid and Justin warn farmers that plant moisture is too high at that stage to make good quality silage. Such crops should be treated like any other hay crop silage; they should be wilted or have preservatives added.

add 1 - hybrids

Much better feeding value will result if the crop is harvested when the seeds are in the dough stage.

In trials over the past three years, the agronomists compared some sorghum-sudangrass hybrids with Piper sudangrass, and found that Piper was consistently lower in prussic acid content than the hybrids. But by making silage or hay out of sudangrass, the possibility of prussic acid poisoning can be practically eliminated.

In the trial, Piper showed a slightly faster recovery after grazing. But the University agronomists recommend that neither Piper, Trudan nor the hybrids be grazed before they are 18 inches high.

Further information is available in Agronomy Fact Sheet No. 15 by Schmid and Justin. It is titled "Sorghum-Sudangrass Hybrids," and can be obtained from county agricultural agents or by writing to the Agricultural Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
February 15, 1965

To all counties
(except Cook)

Immediate release

HIGH QUALITY SEED
CAN BE FARMER'S
BIGGEST BARGAIN

High quality seed can be a farmer's biggest bargain this spring, but poor seed can be his biggest cost, according to Harley Otto, extension agronomist at the University of Minnesota.

Recent on-the-farm surveys show that many farmers still sow "cheap" seed which is often low in germination or contains noxious weed seed. The poorest seeds in these surveys were either grown at home or purchased from neighbors, while the best seeds were cleaned and tagged by professional seed companies.

Otto says that seed experts from throughout the United States and Canada agree that it is wise to use well cleaned, tested seed. While such high quality seed represents only about 10-15 percent of the total crop production cost, it pays off handsomely through cleaner fields and higher yields.

For several years members of the Field Seed Institute of North America have cooperated with representatives of the Agricultural Extension Services of the U. S. and Canada in developing educational programs concerning the importance of using high quality seeds.

Otto has five suggestions to insure better crop production and cleaner fields:

1. Plant only seed that has been properly tested and labeled to comply with Federal and State Seed Laws. These laws are designed to help you know the quality of seed you buy. Sowing untested seed is always a gamble.

2. Plant seed that is known to be adapted to your area.

3. Purchase seed from a reputable seed dealer or merchant serving your local area.

4. Purchase seed early so that you have a good choice and are not forced to settle for what's left.

5. If you use your own home-grown seed, have it cleaned by a reputable seed processor. Also, have it tested by a recognized competent seed laboratory for germination and to make sure that it is free from excessive or noxious weed seed.

Good seed pays, he adds, but not all seed is good.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
February 16, 1965

Immediate release

MCKERROW SCHOLARSHIP AWARDED TO WASHINGTON CO. YOUTH

A Washington County youth has been awarded the McKerrow Scholarship for his continuous achievement in the dairy project.

Alden Booren, 17, Marine-on-the-St. Croix, will use the \$300 scholarship to attend the University of Minnesota to major in biochemistry. He is a senior in Forest Lake High School.

The McKerrow Scholarship was established in honor of William McKerrow who was a leader in the livestock industry in Minnesota. It is to be used for the study of some phase of agriculture at the University of Minnesota.

Booren has carried the dairy project for eight years, expanding from a single heifer to two purebred Holstein calves and one grade Holstein cow. He also owns three purebred animals in partnership with his parents. The scholarship winner demonstrated and exhibited in the dairy project at the State Fair for four years.

As a member of the Big Lakers 4-H Club, Booren held the offices of reporter and president. Last year he won a county leader achievement trip to Chicago on his work in the junior leadership project. The scholarship winner won another trip to Chicago last year as a member of the state reserve championship dairy judging team.

An honor student at Forest Lake High School, Booren is photography editor of the school paper, former officer of the Junior Holstein Club and assistant leader in Luther League.

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
February 16, 1965

Immediate release

MASSACHUSETTS NURSERYMAN TO SPEAK TO GARDEN STORE OPERATORS

John H. Millican, Lexington, Mass., will be a featured speaker at the sixth annual Garden Store Operators' Short Course in the University of Minnesota's St. Paul Campus Student Center March 2.

Millican, owner and manager of Lexington Gardens, will discuss the operation of a successful garden store business and pricing of garden materials. He will talk at both morning and afternoon sessions.

Other speakers at the one-day event will be John Lund, Federated Mutual, Inc., Minneapolis, who will explain insurance for the garden store business; Vincent Bailey, St. Paul nurseryman, who will talk on the value of trade organization; and University staff members Paul H. Cashman, professor of rhetoric and Herbert G. Johnson, professor and extension plant pathologist. Cashman's subject will be salesmanship. Johnson will give the latest information on fungicides and their safe use.

Discussion groups on overhead, store layout, merchandising and handling living plants will be led by nurserymen Larry Bachman, Minneapolis, Leon Budzynski and William C. Davenport, St. Paul and D. B. White, associate professor of horticultural science at the University.

The short course is sponsored by the University's Department of Horticultural Science in cooperation with the Department of Agricultural Short Courses to help garden store operators and other retailers of plants with everyday problems.

Registration for the event is scheduled for 8:30 a.m. with the program beginning at 9 a.m.

Fee for the short course is \$5.

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University of Minnesota
St. Paul 55101 -- Tel. 647-3205
February 16, 1965

CUTLINE: L. to R.: Kent
Ringkob, Jackson, and Richard
Krueger, Litchfield; Minnesota's
1965 IFYE delegates.

Immediate release (with mat)

TWO IFYES NAMED FROM MINNESOTA TO OVERSEAS

Two Minnesota youths have been selected as International Farm Youth Exchange delegates to live and work with farm families overseas in 1965.

They are Kent Ringkob, 22, Jackson, a graduate student at the University of Minnesota, and Richard Krueger, 23, Litchfield.

Ringkob will leave for Finland in April; Krueger will go to India in September. They will spend six months or longer living in farm homes in the countries assigned, sharing day-to-day living experiences with their host families, learning to understand their way of life but also introducing them to American customs and ideals.

Ringkob is a graduate student in animal husbandry at the University of Minnesota. He holds a B.S. degree from Iowa State University, where he majored in animal science. During 12 years as an active 4-H member in Jackson County he served as president of his local club and president of the county 4-H organization. He has attended 4-H Club Congress as a winner in livestock achievement.

He is the son of Mr. and Mrs. Thomas Ringkob.

Krueger is teaching social studies and English in the Clearbrook public schools. He received a B.A. degree from Bethel College, St. Paul, in June. He was Minnesota State 4-H Federation president during 1960-61 and in 1962 was a delegate to the National 4-H Conference in Washington, D. C.

He is the son of Mr. and Mrs. Arnold Krueger.

The International Farm Youth Exchange, a 4-H Club people-to-people program, is conducted by the National 4-H Foundation and the Agricultural Extension Service to increase international understanding at the grass roots level. In the 16 years of the program, 1,515 youths from the United States have gone abroad and more than 1,703 have come here from 67 countries.

By the end of 1964 Minnesota had sent 49 IFYEs to live and work overseas and 128 exchangees had come to Minnesota to live with farm families.

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
February 23, 1965

To all counties
4-H NEWS
Immediate release

TELL THE STORY
WITH SNAPSHOTS

Picture taking involves more than tripping the shutter. A picture should say something -- have one idea or make one point.

Beginning amateur photographers should keep this fact in mind according to Gerald McKay, extension specialist in visual education at the University of Minnesota. It applies to pictures taken on trips as well as to photographs taken by 4-H'ers of their projects.

What a picture says depends upon good composition, care of film and camera and how the camera is aimed.

McKay gives a check list as a guide for beginning photographers:

1. Load film in the shade and keep film and camera in a cool place. Heat, dirt and moisture, enemies of cameras and films may ruin a picture. Don't bury the camera in a hot luggage or glove compartment or in the back window of a car.
2. Decide what the picture will say. Pictures can tell a story without words.
3. Stand firmly when taking a picture. Place your feet about 18 inches apart. Holding the camera so that one of your fingers is on the shutter release will enable you to trip the shutter without jarring the camera. Grip the camera firmly with both hands.
5. Aim the camera properly and frame your picture. When taking a picture of a landscape, frame the snapshot with limbs of trees and have people doing something in the foreground to provide interest and size comparison.

Look through the finder and move it away from the eye and then back to the eye. Remember that your viewfinder is only a device to help you in aiming your camera and to give you a general idea of the area you are photographing. You can usually see more through the viewfinder than the picture will show.

add 1 - photography

6. If necessary, choose a new viewpoint to eliminate non-essentials which may be distracting. Background beyond the subject can help the picture tell the story or can detract. A plain background such as sky, grass, shrubbery or a plain wall makes the subject stand out.

7. Squeeze the shutter release when the subject is still. A jab, punch or push on the release will move the camera and you'll have a blurred picture as a result.

8. Wind the film to the next exposure. This is a safety measure to prevent taking two pictures on one negative.

9. Write down exposure or other information to help you improve your pictures.

10. Remove film in the shade and put in the box or wrapper. Never leave a roll of film, exposed or unexposed, in your camera any longer than necessary. Send your exposed film immediately to your dealer for processing.

One further tip: learn from your mistakes.

-smk-

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
February 23, 1965

To all counties
ATT: HOME AGENTS
Immediate release

MARCH IS
EGG MONTH

March is National Egg Month -- and, appropriately, eggs head the U. S. Department of Agriculture's list of plentiful foods for the month.

Vying in abundance with eggs are peanuts and peanut products. In good supply also for March meals are canned pink salmon, rice, frozen and canned red tart cherries, canned pears, fresh apples, cabbage, carrots and celery. All of these foods should be good buys.

Supplies of eggs in March will be above those of a year ago. The attractive retail prices should be an inducement to homemakers to feature egg dishes often -- at breakfast and from main course to dessert and other meals. Extension nutritionists at the University of Minnesota point out that eggs are nature's convenience food and that egg protein is of such high quality that it is used as a standard for measuring the value of all other proteins.

Peanuts and peanut butter provide protein, too. The crop of peanuts is the largest since 1948.

Canned pink salmon, along with eggs, will be an excellent protein buy for Lent. Since the 1964 Alaskan pack was a fifth larger than the year before, large supplies should continue through Easter.

With the 1964 rice harvest up from a year ago -- and 34 percent greater than average -- there will be ample quantities for use in casserole dishes and in other ways.

Plentiful fruits for the month include canned and frozen cherries from the biggest pack on record, canned pears and fresh apples. Because so many fresh apples went into controlled atmosphere storage this year, consumers can still find high quality apples.

Cabbage for slaw and salads and celery and carrots for the relish plate are the fresh vegetables that should be reasonably priced this month because of high production.

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
February 23, 1965

To all counties
Immediate release

IN BRIEF.....

Recommended crop varieties can benefit growers, but to obtain these benefits a grower must plant seed of varietal purity. And according to extension agronomist Harley Otto at the University of Minnesota, the best assurance is through use of certified seed. This is seed which is no more than three generations removed from foundation seed maintained by the University and known to be pure for variety. Production and processing of certified seed are supervised by the Minnesota Crop Improvement Association through field and laboratory inspections.

* * * *

Results from Corn Hybrid trials have been published by the University of Minnesota. Compiled by agronomists R. H. Peterson and J. C. Sentz, the report deals with comparative performance of 109 commercially available corn hybrids grown in 11 test locations in 7 districts of the state. Copies are available from county extension offices and the Agricultural Bulletin Room, University of Minnesota, St. Paul 55101. Ask for Miscellaneous Report No. 28, "Minnesota's 1964 Hybrid Corn Performance Trials."

* * * *

Blacktop is a satisfactory paving material for cattle yards, if it is top quality and properly applied, according to D. W. Bates, extension agricultural engineer at the University of Minnesota. Bates says a suitable cattle barnyard pavement is a hot-mix, hot-laid asphalt concrete made from good quality aggregate and straight asphalt cement. He says the best guide for getting quality blacktop is to specify that it meet the requirements for high type asphalt concrete as set up by the State Highway Department. Caution: Blacktop paving material should not be used for hog yards; hogs can be poisoned by it.

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Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
February 23, 1965

To all counties
Immediate release

WEED SPRAY
TIMING AFFECTS
CROP DEVELOPMENT

When you're planning that weed control program for 1965, remember that chemical sprays call for some careful timing.

The best time is when the crop is most tolerant and when the weeds are most susceptible, according to R. E. Nylund, horticulturist at the University of Minnesota.

Nylund's first advice is to read the herbicide label carefully. It usually gives precautions regarding susceptible crop stages. Keep in mind that these stages can vary both with the crop and with the chemical.

Once the resistant period of a crop is determined, the idea is to apply herbicides when weeds are most susceptible. Such timing requires less herbicide per acre, thereby reducing cost, and means less possibility of injury to the crop.

As a general rule, weeds are most susceptible in their early stages and it is therefore usually wise to spray as early as the crop permits.

Why do different crops vary in tolerance to specific herbicides? Nylund says selective effects of herbicides are based on many factors. These include physiological differences in plants, differential absorption, differential wetting, differential translocation, and morphological differences.

These characteristics vary between different weed species as well as between different crop plants. They may also vary for a plant depending on the variety, age, and the environment preceding, during or following application of the chemical.

Nylund points out a number of differences in tolerance of various crops.

-more-

add 1 - weed spray timing

Spring wheat and barley are more resistant than oats to 2,4-D and MCPA. All are sensitive as seedlings, but are almost immune to 2,4-D after they have headed out and after the early milk stage. Wheat and barley are relatively tolerant from the five leaf to the boot stage, but are susceptible when in the boot stage.

Flax is most sensitive to MCPA between the bud stage and when ninety percent of the bolls are formed.

Corn is susceptible to 2,4-D from emergence to tasselling. This is especially true when corn is growing rapidly. To minimize this injury, drop nozzles should be used on corn more than eight inches tall, to avoid spraying the upper leaves and leaf whorl.

Sorghum is susceptible to 2,4-D in the seedling, early boot, and pollination stages. It is most tolerant when 4-12 inches tall but injury may occur at this stage also.

Seedling legumes are the least sensitive to 4-(2,4-DB) if they are allowed to attain the two to three inch stage before spraying.

Established legumes are susceptible to 2,4-D and MCPA when growing actively. Such herbicides, if used, should be applied during the dormant period of late fall or very early spring. Legumes are much more tolerant to 4-(2,4-DB).

Perennial forage grasses have increased tolerance to 2,4-D after the 2- to 4 leaf stage.

These are a few examples of varying susceptibility of crop plants to herbicides. As a final note, Nyland urges the importance of reading the herbicide label carefully for precautions regarding timing of herbicide application.

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Department of Information
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St. Paul, Minnesota 55101
February 23, 1965

To all counties
Immediate release

MINNESOTA FARM
INCOME DROPPED
SLIGHTLY IN 1964

Minnesota farmers last year saw crop production drop, livestock receipts remain about the same and direct government payments increase. As a result, the total sales of Minnesota farm products declined slightly compared to 1963.

Preliminary estimates indicate that cash receipts from farm marketings went from \$1,473 million in 1963 to \$1,435 million in 1964.

Decreases in hog and crop receipts were the main factors in the decline while increased receipts from dairy products bolstered total cash receipts last year, according to W. Keith Bryant, assistant professor of agricultural economics at the University of Minnesota.

Total crop production in the state dropped 17 percent from 1963's record crop. At the same time, however, total crop production was down only eight percent compared to the average for the past five years.

Bryant explains the decrease to be due mainly to midsummer weather conditions which mainly affected corn production as well as other grain and hay crops. Cash receipts from marketing all crops were about \$413 million last year compared to \$441 million in 1963.

Corn prices averaged slightly higher last year, but production of corn for grain was only 272 million bushels compared with the record 1963 crop of 354 million bushels. Bryant explains the decrease resulted from fewer acres harvested plus a 14 percent drop in per acre yield.

The number of acres of soybeans harvested last year rose 20 percent, but soybean yields dropped nearly $4\frac{1}{2}$ bushels per acre. As a result, the 57 million bushels produced nearly equaled the record crop in 1963. Prices rose from \$2.43 per bushel in 1963 to \$2.60.

add 1 - Minnesota farm income

The sale of livestock and livestock products dropped only one percent to \$1,022 million. Hog receipts declined while receipts from dairy products rose.

Cattle and calves marketed in the state rose about five percent while their weights remained about constant. And Bryant says that partly because of the extensive government purchase program of beef last year, the drop in cattle prices was only four percent.

Cash receipts from cattle and calves remained about the same since the increased marketings nearly offset the price decline. Total cash receipts were \$332 million last year compared to \$337 million the year before.

About seven percent fewer hogs were marked last year. Since hog prices also dropped from 1963 levels, cash receipts declined about 10 percent to \$199 million.

Cash receipts for sheep and lambs remained about the same. The number of sheep and lambs marketed declined for the third straight year, but prices responded to the lower marketings resulting in an average increase per hundredweight.

Increased milk production of about five percent per cow along with a slightly higher price meant a six to seven percent increase in cash receipts from dairy products in 1964.

Turkey production increased to 15.3 million birds, the second largest turkey crop on record. Last year Minnesota was second only to California in turkey production. However, cash receipts remained about the same as in 1963.

Egg production declined for the ninth consecutive year, but Bryant explains that an increase in average egg prices partially offset the decrease in egg marketings.

Direct government payments increased about 23 percent over 1963. Payments totaled \$125 million. This increase, the economist explains, almost offset the drop in cash receipts.

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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
February 23, 1965

Immediate release

TURF MANAGEMENT SHORT COURSE AT U IN MARCH

The second annual short course in turf management will be held on the University of Minnesota's St. Paul Campus March 16, La Vern A. Freeh, head of the Department of Agricultural Short Courses, has announced.

The course is designed for people professionally concerned with the care and management of turf for golf courses, parks, sodding institutional grounds and recreational areas. Sponsoring the short course are the University's Department of Agricultural Short Courses and the Department of Horticultural Science.

Leading authorities in sod production and turf management will speak during the morning session. Panel discussions during the afternoon will deal with problems of weed, insect and disease control; equipment and maintenance; cultural practices, fertility, water requirements and establishment of turf. Representatives from industry and University of Minnesota staff members will appear on the panels. Guest speakers will include Ben Warren, Warren's Turf Nursery, Palos Park, Ill., and E. C. Roberts, ^{professor and} turf specialist at Iowa State University and Howard Kaerwer, Northrup King and Co., Minneapolis.

Fee for the short course is \$5. Advance registration is recommended. Information about the program and registration materials may be obtained by writing Department of Agricultural Short Courses, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101 or by calling 647-3211.

D. B. White, associate professor of horticultural science at the University, is program coordinator.

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
February 23, 1965

Immediate release

ROBERT W. SNYDER APPOINTED TO U OF M AG EXTENSION STAFF

Robert W. Snyder, Ithaca, N. Y., has joined the staff of the University of Minnesota Agricultural Extension Service as an economist in land use, according to Luther J. Fickrel, Extension director.

Snyder's educational activities will deal with education relating to the broad range of problems in human and natural resource development in Minnesota.

The Agricultural Extension Service is currently expanding its educational efforts in resource development, particularly in relation to problems of rural communities and agriculture in northeastern Minnesota.

Snyder received his collegiate training at Cornell University in New York, and this year received his Ph. D. in agricultural policy and economic development, with a minor in public administration and finance and in city and regional planning. He recently completed a research project on the use of rural land by non-farm households in a county of upstate New York.

In 1961, he received his M.S. at Cornell, and research for this degree was based upon agriculture and suburbanization in a county on the fringe of New York City.

He is originally from Alfred, New York, and received his undergraduate training at Cornell between 1949 and 1953.

From 1963 to 1964, Snyder was an Extension Associate in Land Economics and Resource Development at Cornell University.

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 649-3205
February 23, 1965

Immediate release

FILLERS FOR WOMEN'S PAGES

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

An opened jar of peanut butter keeps best in the refrigerator.

Drying a king-size cotton bedspread? Stop the dryer at half the original setting and rearrange the spread so all areas will be dried. Then finish the drying. To line-dry, match the corners together, double the spread over and hang on two parallel lines.

If you keep a can of cookies in the freezer and remove a few as you need them, put sheets of a saran-type film or aluminum foil between the layers and on top to prevent moisture loss, advises Mrs. Shirley Munson, in charge of the University of Minnesota's food processing laboratory.

Whether you plan to start plants indoors or outside, it's a good idea to get a fresh supply of annual garden seeds each spring. Extension horticulturists at the University of Minnesota say last year's seeds may give disappointing results because of poor germination.

The term "preshrunk" is no guarantee against shrinkage. University of Minnesota extension clothing specialists say it has meaning only when followed by a statement telling how much the fabric will shrink--for example, "preshrunk--will not shrink more than 1 percent."

Art gum will usually remove finger marks on wallpaper or smudges made by picture frames. To remove children's art work done with wax crayons, rub lightly with alcohol or drycleaning fluid.

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65-56-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
February 23, 1965

Immediate release

SCHOOL OF FORESTRY RECEIVES NSF GRANT

The National Science Foundation has granted \$62,575 to the University of Minnesota School of Forestry for construction of a greenhouse to be used with other facilities in conducting graduate training and basic research in forest biology.

The greenhouse will have a basement containing controlled environment and service rooms.

Research and graduate training will be conducted on the genetics, physiology, and ecology of forest trees. The studies will deal with how moisture, light, heat, and nutrients control the growth of forest trees and associated forest vegetation; how water moves through trees; and genetic variation in trees and production of hybrids between certain species.

The greenhouse is to be completed by January 1966.

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65-57-pjt

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
February 23, 1965

Immediate release

NEW PUBLICATION GIVES TIPS ON BUYING FREEZER

In the market for a food freezer? Puzzled about whether to choose an upright or a chest type? How economical is a freezer?

A new University of Minnesota Agricultural Extension Service publication, "Choosing and Using Your Food Freezer," Extension Bulletin 315, gives you answers to these and other questions you may have on selecting a freezer. Free copies are available from county extension offices or from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101.

There are pros and cons for both upright and chest-type freezers, says Mary Muller, extension home improvement specialist at the University of Minnesota. Upright freezers have the advantage of occupying only about half the floor space required by a chest model. Many consumers prefer the uprights because they find it easier to locate packages placed on the shelves than in the chest type. However, probably more food can be frozen and stored in a chest freezer than in an upright, since little space is taken by dividers. A chest model also provides a good-sized counter top. An added advantage of the chest type is that there is less exchange of hot and cold air when raising the lid than in opening the door of an upright model.

You'll probably not save any money by buying a freezer, Miss Muller says. But it is a definite convenience, especially when both husband and wife are employed away from home or when the family entertains frequently.

If you are thinking of entering a contract for a food freezer plan, investigate it carefully, Miss Muller cautions. The "package deal" that includes purchase of a freezer may be less to your advantage than buying a freezer separately. The food items included with the plan may or may not measure up to your usual purchases. In any case, be sure to read the contract carefully before signing it.

In shopping for a freezer, look for a reliable guarantee and read it carefully so you know what it includes. Check to see whether there is a food spoilage warranty in case of a breakdown. Make sure there is an Underwriters' Laboratory (UL) seal of approval indicating that electrical connections and refrigerating system are safe.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
February 25, 1965

Immediate release

COMBINE VEGETABLES WITH ANNUAL FLOWERS IN BORDER

If you have no room for a vegetable garden this year and yet would like to raise a few vegetables, a University of Minnesota extension horticulturist has a solution: combine them with annuals in the flower border.

Vegetable plants can serve a dual purpose, providing food as well as making an attractive addition to the flower border, according to Orrin C. Turnquist. But, he cautioned, you must be careful to plant vegetables and flowers together of about the same height, choose those whose colors blend well and select vegetables which will be interesting in appearance even after the fruits are harvested. For example, the purple and red pigment in the tassels and stalks of Midget and of Sugar and Gold sweet corn would add a colorful accent to the back of the border.

Vegetables may be used in the foreground, the middle of the flower border or the background, according to their height. But be sure to use a number of plants--half a dozen, eight or nine--rather than just one.

Turnquist suggests taking time now to make a plan on paper of the combination flower border, to be ready for planting time. Here are some of the dual-purpose vegetables the University horticulturist recommends as possibilities for combining with appropriate annuals:

(more)

add 1 -- vegetables

For the background - pole beans (which could be used on a trellis as a screen) such as Frizetaker, King of the Garden, North Pole limas, Glacier; Sugar and Gold sweet corn; Midget sweet corn; Big Boy or Morton Hybrid tomatoes.

Middle of the border - vegetables of medium height - Royalty Purple bush bean; Ruby Queen or King Red beets; eggplant; purple and green kale; Jade or Catskill Brussels sprouts; Nantes carrots; purple cauliflower; Savoy King or Emerald Cross cabbage; Nosegay, Pinocchio, Sweet Chocolate or Peter Piper peppers; Rhubarb or Burgundy chard; Zucchini or Patty Pan squash.

Edging plants - parsley; Ruby or Salad Trim leaf lettuce; Bibb head lettuce; purple and green kohlrabi; endive; herbs of various kinds.

More families should use planters to add beauty to the patio, Turnquist believes. Dwarf vegetable plants like Early Salad Hybrid and Patio tomatoes with their small fruits lend themselves especially well to planting in combination with flowers in tubs and special containers for the patio. Other appropriate vegetable plants Turnquist suggests for patio planters are King Red or Ruby Queen beets for their colorful foliage, the very ornamental Nosegay and Pinocchio peppers, and parsley interplanted with Salad Trim lettuce and purple kohlrabi.

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65-60-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
February 25, 1965

Immediate release

DISTRICT 4-H RADIO SPEAKING CONTEST WINNERS ANNOUNCED

Seventeen young people have won championships in district contests completed this week in the 23rd annual statewide 4-H radio speaking contest.

The 17 district winners will compete in state finals March 8 and 9 on the University of Minnesota's / St. Paul Campus. Original talks will be given on the subject, "What Does the Separation of Church and State Mean to Me?"

District champions, as announced by William A. Milbrath, assistant 4-H leader at the University, are: Susan Erkel, 567 Rice Creek Terrace, Minneapolis; Craig Aase, Tamarack; Roy Nord, Bemidji; Tamra Holme, Crtonville; Myrene Jones, New Ulm; Margaret Kragnes, Felton; Roslyn Flaten, Dennison; Mary Ann Rumreich, Naytahwaush; Becky Krenz, Truman; Marjorie Gustafson, Little Falls; Steven Boots, Rushmore; John Clement, Eyota; John Borgos, Fergus Falls; Marina Markl, Edgerton; Jean Stepan, 23 Oak Knoll, St. Paul; Kathy Stenberg, Oklee; and Kathleen Josephson, Virginia.

Reserve district championships went to Larry Olsen, Pequot Lakes; Shirley Erler, West Concord; Eileen Smith, Winnebago; Nancy Nicholson, Elbow Lake; Thomas Tweeten, Spring Grove; Neil Radke, Park Rapids; Carole Anderson, Stanchfield; Donald Mattson, Willmar; Maurice Milsten, Middle River; Sandra Bolstad, St. Peter; Myrna Hagen, Belview; Mary Peterson, Duluth; Mary Jean Plonske, Belle Plaine; Mary Jane Ley, Richmond; Richard Fields, Jasper; Cynthia Karlsson, Roseau; and Susan Emerson, Wolverton.

District radio speaking contests were conducted over local radio stations. Contenders were county champions.

The champions and reserve champions will receive all-expense paid trips to the Twin Cities for two days of planned activities.

Awards are given by the Jewish Community Relations Council of Minnesota which sponsors the 4-H radio speaking contest with the University's Agricultural Extension Service.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
February 26, 1965

*For release *
*Monday, March 1 *

NEW WHEAT VARIETY RELEASED BY U OF M AND USDA

A new variety of hard red spring wheat has been released by the University of Minnesota and the U.S. Department of Agriculture (Monday, March 1).

The variety is named Chris, in recognition of the late Professor Jonas J. Christensen, head of the Department of Plant Pathology and Physiology at the University from 1953-61.

The wheat breeding research which resulted in development of Chris wheat began more than a decade ago at the University. The variety has undergone several years of extensive field tests in Minnesota, nearby states, and Canada.

All available seed of Chris wheat for 1965 has been distributed through county seed distribution committees to foundation and registered seed growers.

Chris is a beardless wheat of medium height and maturity, with moderately stiff straw. It is resistant to prevalent races of stem rust and leaf rust and to black chaff, and is moderately resistant to bunt.

(more)

add 1 -- new wheat variety

The variety has good test weight, averaging about one pound per bushel heavier than the best of the present recommended varieties, which include Selkirk, Pembina, Crim and Justin.

Furthermore, Chris wheat has averaged two or more bushels per acre higher in yield than the best of the other recommended varieties. It has satisfactory milling and baking characteristics.

This variety was developed from a breeding procedure which involved four other varieties--Thatcher and Newthatch, formerly recommended varieties in Minnesota, and Frontana and Kenya. Frontana is a South American variety, and Kenya is from the African nation of that name.

The variety was first entered in yield trials in 1956, and since then has been tested in Canada, Wisconsin, South Dakota, North Dakota, Colorado, Montana, Wyoming and Idaho.

Seed sources of the new variety for 1966 will be published in the Seed Directory of the Minnesota Crop Improvement Association, which will be available about September 1 of this year.

Release of the variety was announced jointly by the Agricultural Experiment Station at the University and the Crops Research Division of the Agricultural Research Service of the USDA. Development of the variety was the result of research by a team of scientists of the Agricultural Experiment Station and the USDA.

Last year, about 830,000 acres of spring wheat were raised in Minnesota, compared with about 11,000 acres of winter wheat and some 75,000 acres of durum.

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65-pjt

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
March 1, 1965

To all counties
Immediate release

SOIL MOISTURE
LEVELS ARE LOW
IN MUCH OF STATE

Much of Minnesota's soil will be low in moisture at the start of the 1965 crop year.

Except for the northern third of Minnesota and some south-central counties, the soil moisture outlook is rather disturbing, according to soil climatologist Donald G. Baker at the University of Minnesota.

Soil moisture measurements were made at 29 locations in the state in fall, 1964.

Appreciable moisture increases over fall, 1963, occurred only at Bellingham and Marietta in Lac qui Parle county and in Polk, Sibley, Watonwan and Yellow Medicine counties.

Most remaining sites were much drier than a year earlier, which in turn was generally drier than 1962.

As an example, tests at the Bellingham site showed 12.45 inches of total available water present, which is 78 percent of the amount possible. In contrast, a site in Redwood county disclosed about a fourth of an inch of total available water in an alfalfa field, which uses nearly 23 inches of water in a given season.

In summary, Baker has this to say about various areas:

* Soil moisture supplies are good north of a line from about Crookston to Duluth and, in some cases, may be in excess.

* South of the Crookston-Duluth line, with some exceptions, soil moisture is low, with the most critical areas in the southeastern and southwestern corners of the state.

-more-

add 1 - soil moisture

* South-central Minnesota to the Iowa border appears to be adequately supplied with soil moisture.

* In a few scattered areas, such as parts of Lac qui Parle and Yellow Medicine counties, moisture seems adequate.

Will this winter's snow make a difference? Probably not a great deal. Baker says studies over the past 5 years indicate that only about a fourth of the overwinter precipitation enters the soil to become part of the soil moisture reserve.

The main effect of snow seems to be in insulating the soil and decreasing upward migration of moisture. Without a snow cover, moisture from several feet down may move up during the winter and create a temporary zone of moisture saturation at the surface. Until this moisture drains down, usually about 2 weeks after spring thaw, it may actually prevent spring rains from entering the soil.

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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
March 1, 1965

To all counties
Immediate release

FARMERS ADVISED
TO PLAN CAREFULLY
FOR 1965 PRODUCTION

Agricultural economists at the University of Minnesota advise farmers to consider two important questions before completing production plans for 1965.

First, does the outlook for agricultural commodities and government programs suggest any changes in your farm plans? And second, what volume of business and level of efficiency do you need for 1965 and following years?

S. A. Engene, agricultural economics professor, and Paul S. Hasbargen, extension economist, discuss crops, livestock and other long-run opportunities in the recent issue of Minnesota Farm Business Notes, a publication of the University's Agricultural Extension Service.

Concerning crop production, the economists expect corn to continue to bring the highest return on most farms in the southern part of the state. But total corn production is expected to increase in 1965, causing a downward pressure on prices.

Although the support price will remain at \$1.25 nationally, the loan level will be down five cents to \$1.05, thus permitting market prices to drop. On the other hand, the support payment on normal production is raised to 20 cents, making participation in the program somewhat more attractive.

Soybeans will continue to be the "wonder crop," according to Engene and Hasbargen. Since room still exists for more beans next year, some farmers might consider increasing their acreage in 1965. However, soybean acreage may well be overexpanded in response to currently good prices.

add 1 - farmers advise

Wheat prospects are about the same as last year. Since the historical base won't be hurt by overplanting, farmers will have greater freedom in planning. Flax prospects are somewhat better. Potato production may well be overstimulated, causing a return to the lower price levels of past years.

The dairy picture looks brighter since increased population, larger exports and increased commercial use consumed most of the accumulated surplus of solids-not-fat. The depressing factor is butterfat. Diet consciousness, the cholesterol scare and competition from vegetable oils are holding down the markets for fats.

Engene and Hasbargen say that lower prices or government subsidies will be needed to move the butterfat supplies. And the present situation prevents any material increase in whole milk prices. On the whole, dairying will be profitable only for the efficient producer with a large volume in the longer run.

The beef picture looks brighter than a year ago. Although price relief is not going to be immediate, increased population and decreased supplies may well cut the amount of meat on a per person basis, thus raising prices.

Hog prospects look better for this year. Like the fall crop, the spring pig crop will be down, meaning better hog prices in spite of competition from large beef supplies.

Prospects for sheep and wool are very favorable for 1965, but the poultry picture is dim. Egg production, like turkey production, will be up slightly, bringing prices down somewhat.

The economists point out that farmers should not overlook the excellent opportunities for off-farm employment, due to the currently strong economic growth period.

Another area to consider is the administration's "war on poverty." Engene and Hasbargen say that there is the possibility that new programs will be introduced to help small volume farmers whose incomes are little affected by traditional farm price improvement programs.

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University of Minnesota
St. Paul, Minnesota 55101
March 1, 1965

To all counties
4-H NEWS
Immediate release

CORRECT YOUR
MISTAKES IN
PICTURE TAKING

Streaks in the pictures you've been taking? Or do your negatives come out blank when they're developed? What's wrong?

4-H'ers are being challenged by the art of photography, a new project added to the list now available to club members.

Gerald McKay, extension visual aids specialist at the University of Minnesota, discusses a few common mistakes made by beginning amateur photographers and how to correct them.

White, foggy edges or irregular white streaks and areas in the snapshot are usually the results of a leaking light or loading or unloading film improperly. Always load and unload camera in the shade and keep film tightly rolled. Seal film securely with the sticker.

A finger, camera strap, or other object too near the lens will obscure or black out part of the picture. Check to see that nothing covers part of the lens while taking a picture.

A fixed-focus camera too close to the subject or a camera with adjustable focus not properly set will produce a picture blurred in the foreground but sharp in the background. Do not get closer than five feet to the subject.

The picture may show part of the subject blurred because the subject was moving too fast. Shoot when the subject is standing still or try to catch the point of least motion.

A fuzzy or blurred picture in all areas may be caused by moving the camera as the shutter is operated. Stand firmly and brace arms against body. Press the shutter release slowly.

-more-

add 1 - picture taking

A dirty camera lens will cause a foggy or misty picture. Clean lens with a soft brush, a lintless cloth, or lens cleaning tissue. Moisture will collect on the camera lens when you bring a cold camera into a warm room. Be sure the lens is clean and dry before taking a picture.

Is part of the subject, such as the top of the head, cut off? More than likely enough space wasn't allowed, particularly if the picture was a closeup. A little extra space above the subject in the viewfinder corrects this mistake. If the viewfinder is to one side of lens, allow a little extra space on the side as you look through the viewfinder.

-smk-

Department of Information
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University of Minnesota
St. Paul, Minnesota 55101
March 1, 1965

To all counties
ATT: HOME AGENTS
Immediate release

MAKE SOME CHANGES
WHEN SEWING
STRETCH FABRICS

Including some woven stretch with other fabrics you sew this spring will provide a new experience and challenge.

A professional-looking garment can result if you give special attention to the selection of pattern, fabric and construction details, says Thelma Baierl, extension clothing specialist at the University of Minnesota.

Three types of woven stretch fabrics are on the consumer market.

Warp stretch used for ski pants and slacks gives lengthwise stretch; skirts, blouses, work shirts and work clothing use the crosswise or filling stretch; and two-way stretch, as the name implies, stretches in both the crosswise and lengthwise direction. The two-way stretch would be suitable for swimsuits and upholstery.

Because of the new qualities in stretch fabrics it's necessary to make some adaptations in sewing techniques. Here are some suggestions from Miss Baierl:

- Choose a pattern that will benefit from stretch.
- Buy your regular pattern size.
- Relax the stretch fabric on a flat surface for about 24 hours.
- Lay the pattern so the stretch will be in the correct direction.
- Use sharp pins and shears.
- Use thread that has some elasticity, such as Taslan, textured nylon or regular nylon.
- Use a loose tension, about 15 stitches to the inch, to provide a give in the garment when it is finished.
- Stitch-test the tension before sewing on the garment.
- Do not use interfacing or underlining or lining that will inhibit the stretch.
- Avoid using seam tape on hems, since it will curtail the stretch also.
- Use seam finish that will permit stretching.

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
March 1, 1965

To all counties
Immediate release

IN BRIEF.....

Results of potato variety demonstrations are now available in Horticulture Fact Sheet No. 4 from county extension offices and from the Agricultural Bulletin Room at the University of Minnesota's St. Paul campus. Demonstrations were conducted at 8 locations among 25 varieties.

* * * *

Oak tree pruning should be done before spring. Cuts made this winter will be dried out by spring so the spores of the oak wilt fungus can't use them to enter the tree, according to Herbert Johnson, extension plant pathologist at the University of Minnesota. Insects and wind carry the spores which appear in greatest number shortly after the growing season starts. Spores can enter an oak only through a fresh cut.

* * * *

Percentage of Minnesota milk cows being tested in Dairy Herd Improvement Association programs continues to rise. According to Ralph Wayne, extension dairyman at the University of Minnesota, a total of 182,151 cows in 5,942 herds were on standard or owner-sampler programs as of January 1 of this year. The average DHIA cow in Minnesota produces over 3,000 pounds of milk per year and returns nearly \$100 more per year for her owner's labor than the average Minnesota cow.

* * * *

Keeping older hens a second year usually doesn't pay. They lay 25 to 30 percent less eggs of a larger size and poorer quality. And they require more feed per dozen eggs, according to Robert Berg, extension poultryman at the University of Minnesota. He advises planning programs now to start with well-bred thrifty pullets in the fall.

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Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
March 2, 1965

Immediate release

BUY GOODS AND SERVICES--NOT TRADING STAMPS

Trading stamps aren't free, as many consumers think; they are a cost of doing business to the retailer who uses them.

Because such stamps have value, as a consumer you should be as careful in making decisions about "spending" them as you are in spending money, according to Mary Ryan, extension consumer marketing specialist at the University of Minnesota. She points out that if you make a poor choice in the merchandise you select in redeeming your stamps, your loss is just as great as it would be if you made an equivalent cash outlay.

Retailers give trading stamps at the rate of 10 for every dollar's worth of business. But to consumers 10 stamps are actually worth from 1 1/2 to 2 1/2 cents, since the only real measure of stamps is their value when they are used to purchase an item, Miss Ryan explains. For example, if stamps are used to buy a toaster which sells for \$8 in one store but for \$6.50 in another, you could say the stamps were worth either \$8 or \$6.50. Because prices do vary for the same item in different outlets, the value of the stamps can only be estimated.

(more)

add 1 -- trading stamps

Nearly all food chains and more than a third of the independent food stores in this country now use trading stamps, Miss Ryan reports. More than half of the food sold in the United States is accompanied by stamps, according to one estimate. Second to grocery stores--which account for about 60 percent of all stamps used--are gasoline stations, which use about 20 percent of all stamps.

Retailers use stamps for the same reason they employ other means of advertising or promotion--to increase or maintain profits. In 1965 it is expected that merchants will buy about \$1 billion worth of trading stamps from some 300 trading companies.

To pay for the cost of stamps, supermarkets estimate that they must increase their sales 15 to 20 percent. Other alternatives are to cut back on other means of promotion or service, to reduce profits or to shift the cost of stamps to the consumer through higher across-the-board prices. Some stores lower costs by increasing efficiency, reduce the number of specials or offer them less frequently, or refrain from reducing prices when it might be possible to do so.

Not only are stamps in wide usage, they are also widely saved. Eight out of every 10 households now save stamps. A 1963 survey showed that 87 percent of the households in the Twin Cities area saved stamps. More women seemed to change their shopping habits than men in order to get stamps, although only about a fifth of the families studied claimed they geared their shopping to stamp distribution.

Yet 5 to 10 percent of all stamps are never redeemed. This fact means extra money for the trading stamp company because the retailer pays for the stamps when he buys them for distribution to his customers.

Miss Ryan gives this advice to consumers: think first about buying goods and services when you shop--not about the stamps that are offered. Comparisons of price, quality and service should be of more importance than trading stamps in making buying decisions, she says.

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March 2, 1965

Immediate release

STATE 4-H RADIO SPEAKING CONTEST MARCH 8-9

Two days of special events are planned for 34 4-H district and reserve district champions in the statewide 4-H radio speaking program to be held in the Twin Cities on March 8-9.

The main event of the two days will be the contest finals Monday at 9 a.m. in Coffey Hall on the University of Minnesota's St. Paul Campus. The state radio speaking champion, to be chosen from 17 district winners, will receive a \$100 cash award and \$50 for the purchase of books for the champion's local or school library. This year's topic is "What Does the Separation of Church and State Mean to Me?"

For the 23rd year the Jewish Community Relations Council of Minnesota and the University of Minnesota Agricultural Extension Service, sponsors of the contest, will host the 34 club members during the two days of activities. The Jewish Community Relations Council is donor of all awards.

Monday afternoon the contestants will tour KTCA-TV and observe a TV show being set up and produced. The star of the TV program will be the winner of the state 4-H radio speaking contest.

The Centennial Methodist Senior High Youth Fellowship group will be host to the 4-H'ers Monday evening. The youth of the church will present "Barrier," a skit on race relationships.

Other scheduled activities include an assembly program with North High School of Minneapolis, a tour of Mount Zion Temple and a luncheon honoring the district and state winners at Mount Zion Temple on Tuesday. Featured speaker at the luncheon will be the Right Reverend Philip F. McNairy of the Episcopal Diocese of Minnesota.

Competing in the state contest are Susan Erkel, 567 Rice Creek Terrace, Minneapolis; Craig Aase, Tamarack; Roy Nord, Bemidji; Tamra Holme, Ortonville; Myrene Jones, New Ulm; Margaret Kragnes, Felton; Roslyn Flaten, Dennison; Mary Ann Rumreich, Naytahwaush; Becky Krenz, Truman; Marjorie Gustafson, Little Falls; Steven Boots, Rushmore; John Clement, Eyota; John Borgos, Fergus Falls; Marina Markl, Edgerton; Jean Stepan, 23 Oak Knoll, St. Paul; Kathy Stenberg, Oklee; and Kathleen Josephson, Virginia.

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65-63-smk

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University of Minnesota
St. Paul 55101 -- Tel. 647-3205
March 2, 1965

Immediate release

RURAL POPULATION MOBILITY DISCUSSED AT SEMINAR

FERGUS FALLS--Further outmigration and population decline can be expected in Minnesota's rural areas unless alternative nonfarm job opportunities are found for persons displaced from agriculture, participants in a public affairs leadership seminar were told here Thursday (March 4).

George Donohue, professor of sociology at the University of Minnesota, told the group that projection on returns to farm investments for the next couple of decades point to a continued low level of return on capital investment in agriculture.

Land in smaller units will in many cases be consolidated with larger ones, he said, and many families will continue to see larger size as necessary for satisfactory incomes in commercial agriculture.

Concerning the possibility of a general price increase for reversing the rural population decline, Donohue said that if the economy were to become more prosperous than expected in the next decade, and if returns to agriculture increased, the results might be even more investment in capital inputs substituting for labor in farming.

(more)

add 1 -- rural population

He added that a more prosperous general economy would mean even more "pull" toward metropolitan and urban areas. The overall result would probably be an even more rapid depopulation of rural areas.

"Further farm consolidation may be necessary," Donohue said, "and rural people may also find it necessary to consolidate services of the rural community, such as education, religion and economic and political services."

He explained that while the "14-mile community" still exists in much of Minnesota's agricultural area, the 30-minute community may be more functional and more realistic.

Donohue agreed that consolidating institutional services would mean fewer communities, but he explained that a declining population base, with relatively low level of income does not give a tax base adequate for an ever-expanding increase in public services.

According to the 1960 census, 38 Minnesota counties had median family incomes from all sources for rural farm people under \$3,000. Donohue pointed out that the \$3,000 per year income level is currently the criterion for being on the "edge of poverty."

"As the cost of public services is shifted from the local tax sources to state and federal sources," he said, "conditions governing the nature and use of these funds will in all probability be in terms of the interest of the state and nation as a whole, rather than primarily in terms of needs of local residents."

"Rural communities based primarily upon agriculture, with little or no prospect for development of nonfarm activities, do not appear to be in a position to provide the necessary funds for public services comparable to those of more densely populated industrial communities," he said.

The Leadership Seminar is sponsored by the University of Minnesota Agricultural Extension Service.

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St. Paul 55101 -- Tel. 647-3205
March 8, 1965

Immediate release

ADULT 4-H LEADERS TO ATTEND FORUM IN WASHINGTON

Twenty-three 4-H adult leaders from 14 Minnesota counties will attend a leadership training forum at the National 4-H Center in Washington, D. C., March 22-26.

Purpose of the forum is to acquaint adult leaders with the national scope of the 4-H program, to meet leaders from other states and to sharpen leadership techniques, according to Stanley R. Meinen, assistant state 4-H leader at the University of Minnesota, who is in charge of arrangements.

The adult leaders include Mrs. Uno Murto and Mrs. Lyle Colberg, Cloquet; Mr. and Mrs. George Collins, Backus; Mrs. Erwin Sumption, Longville; Mrs. Lester Martin, Blue Earth; Mrs. Lloyd Stavem, Stanchfield; Mrs. Albert Dahlquist, Cambridge; Mr. and Mrs. Ernest Carlson, Williams; Mr. and Mrs. Robert Malo, Sherburn; Mrs. Knud Basballe, Sr., Morgan; Mrs. Maynard L. Thompson, Warroad; Mrs. Merlon Lagerstedt, Gibbon; Mrs. Eldon Marks, Amboy; Mrs. Arthur Adams, Cosmos; Rudolph Boline, Watkins; Mrs. Everett Floodman and Mrs. Malon Schmiede, Zimmerman; Mr. and Mrs. Lowell Walstrom, Maynard; Mrs. Darrell Kahl, Grand Meadow.

Highlights of the forum will be discussions and lectures on such topics as understanding young people's needs and actions, applying abilities and talents for leadership, the "how" of group leadership and the nature of freedom. The week's events will also feature educational trips to national monuments and memorials in and near Washington, to Mount Vernon, Capitol Hill, the Supreme Court, Library of Congress and the U. S. Department of Agriculture.

The group will meet in St. Paul for an orientation session Saturday afternoon, March 20, and will leave for Washington Sunday morning.

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March 8, 1965

Immediate release

YAC PLANS THIRD ANNUAL STATE CONFERENCE IN WASECA

"Learning Today and Leading Tomorrow" is the theme of the third annual state Young Adult Citizens (YAC) conference to be held April 2, 3 and 4 at the University of Minnesota's Southern School of Agriculture in Waseca.

Purpose of YAC is to develop a program of study and training to help young adults in becoming more informed and effective citizens, according to William Milbrath, extension specialist, young adult program, University of Minnesota. Sponsor of the program is the University's Agricultural Extension Service.

The three-day program begins at 8 p.m. Friday, April 2, with registration, a mixer and a hootenanny.

Workshops, led by members of the state 4-H staff, will be conducted on membership, program planning, leading discussions and recreation. Four Waseca citizens will present a panel discussion on "Young Adults and Community Participation."

E. C. Frederick, superintendent of the Southern School of Agriculture and Experiment Station, will be luncheon speaker on Saturday. In the afternoon June Cunningham will relate her experiences as a 1964 IFYE to Poland. Presentation of community service awards and a talk by William Rogers, director of World Affairs Center, University of Minnesota, on "World Affairs and You" will highlight the Saturday evening banquet program.

Sunday, April 4, the president and past state president of YAC will summarize the state convention. Darla Frautnick, St. James, is 1965-66 president.

All single young people between the ages of 17 and 27 are welcome to attend the three-day event. Cost of the entire conference including meals, lodging and registration is \$12.50. Registration should be sent to Joseph Spetz, Minneiska, Minnesota, by March 26 with \$1.00 and registration form. For part-time attendance the cost will be adjusted accordingly, Milbrath says.

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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
March 8, 1965

Immediate release

AUTHORITIES ON TURF TO APPEAR AT U SHORT COURSE

Nationally known leaders in sod production and turf management will headline the program for the second annual short course in turf management to be held in the University of Minnesota's St. Paul Campus Student Center, Tuesday, March 16.

Ben Warren, Warren's Turf Nursery, Palos Park, Ill., will speak at the morning session on "Sod Production and Its Role in Turf Management." E. C. Roberts, turf specialist in the Departments of Horticulture and Agronomy at Iowa State University, Ames, will discuss the preparation and establishment of large turf areas.

Howard E. Kaerwer, manager of the research department, Northrup King and Co., Minneapolis, will explain what can be expected of new and old grass varieties. At the conclusion of the morning program findings in turf research will be reported by members of five different University departments.

The afternoon will be devoted to panel discussions geared to the particular needs of professional people attending the short course. Three different panels will deal with problems of weed, insect and disease control; equipment and maintenance; cultural practices, fertility, water requirements and establishment of turf.

Participating in the panels will be Warren, Roberts and Kaerwer; V. C. Fish and J. R. Watson, Toro Manufacturing Co., Minneapolis; R. E. Rose, Ryan Landscape Equipment Co., St. Paul; J. W. Haun, chief engineer, Brillion Iron Works, Brillion, Wis.; and University of Minnesota staff members R. D. Wilcoxson, plant pathologist; J. A. Lofgren, entomologist; D. B. White, horticulturist; A. M. Flikke, agricultural engineer; G. R. Blake and R. S. Farnham, soil scientists; and H. L. Thomas, agronomist. Panel moderators will be L. R. Blomquist, golf course superintendent, Brookview Country Club, Minneapolis; J. L. Kolb, golf course superintendent, Minikahda Club, Minneapolis; and R. A. McLaughlin, president of Minnesota Golf Course Superintendents' Association.

The University Departments of Agricultural Short Courses and Horticultural Science are sponsoring the short course. It is planned for individuals professionally concerned with management and care of turf. D. B. White, associate professor of horticultural science, is program coordinator.

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March 8, 1965

Immediate release

STATE CHAMPION NAMED IN 4-H SPEAKING CONTEST

State champion in the 1964-65 4-H radio speaking contest is Marjorie Gustafson, 18, Little Falls. Roy Nord, 16, Bemidji, was named reserve champion.

The two young people won state honors in the finals in which 17 district winners competed on the St. Paul Campus Monday (March 8). Approximately 1400 4-H'ers have taken part in the competition at local, county and district levels this year. All contestants gave original speeches on the subject, "What Does the Separation of Church and State Mean to Me?"

As state champion, Marjorie received a \$100 cash award and \$50 for the purchase of books on citizenship and human relationships for the local school or public library. Roy won a \$50 cash prize and \$25 to buy books for the local library.

Donor of the awards for the 23rd year was the Jewish Community Relations Council of Minnesota, co-sponsor of the contest with the University of Minnesota Agricultural Extension Service. The Jewish Council was also host at a luncheon honoring the state winners, district and reserve district champions at a luncheon Tuesday at Mount Zion Temple.

(more)

add 1 -- 4-H speaking contest

Marjorie has been in the radio speaking contest only once before--but never above the county level. She has been a 4-H member for five years and is presently secretary of the Little Elk Anonas 4-H Club. Her favorite 4-H projects are clothing, junior leadership and photography.

A senior in Little Falls High School, she plans to attend either St. Cloud State College or Bemidji State College to major in speech and dramatics. She has set either teaching or radio-television as her vocational goal. She is co-editor in chief of her school annual and is active in dramatics.

She is the daughter of Mr. and Mrs. Hjalmer Gustafson.

In the seven years Roy has been a 4-H member, he has held all the offices in the Moccasin 4-H Club and is now president of the Beltrami County 4-H Leaders' Federation. His favorite projects are junior leadership and conservation. He was Beltrami County winner in the 4-H speaking contest last year.

Public speaking is one of his hobbies. In Bemidji High School, where he is a junior, he is active in the Speech Club, Ski Club, Math Club, German Club, Junior Academy of Science, Student Council, Madrigal Singers and goes out for intramural basketball and cross country track.

After graduation he plans to go on to school to take engineering, chemistry or law.

He is the son of Mr. and Mrs. David E. Nord.

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65-65-jbn

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
March 8, 1965

To all counties
4-H NEWS
Immediate release

4-H'ERS EXPRESS
IDEAS THROUGH
SPEAKING CONTEST

_____ County 4-H members are among nearly 17,000 Minnesota young people who have received training in organizing and writing original speeches through the statewide 4-H Radio Speaking Contest in the 22 years of its existence.

The contest has grown on the average of 278 new participants every five years -- an increase of 30 percent every year.

First held in 1943, the radio speaking competition has been sponsored each year by the Minnesota Jewish Community Relations Council and the University of Minnesota Agricultural Extension Service. Participation has grown from 335 the first year to approximately 1,400 this year. All but two counties were represented by contestants in this year's event.

Topic of the first contest was "What the Four Freedoms Mean to Me." This year 4-H'ers wrote original speeches on "What Does the Separation of Church and State Mean to Me?" Subjects over the years have dealt with the world refugee problem, world peace, responsible citizenship and the individual's responsibility in bettering inter-racial and inter-religious understanding.

Among the benefits of the program, according to William Milbrath, University of Minnesota extension specialist, young adult programs, is that it gives 4-H'ers the opportunity to do research and inspires them to think and speak logically and objectively on problems facing the world and themselves. They gain experience in organizing material and in expressing themselves clearly through writing and speaking and, in the case of county winners, broadcasting over a radio station.

County (and district -- if district winner also) winner in this year's contest was _____ . Other county participants were _____
(list, if you wish.)

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota
March 8, 1965

To all counties
ATT: HOME AGENTS
Immediate release

**veneers provide
beauty, strength
and economy**

Beauty, strength and economy are three advantages of modern veneers in furniture.

Occasionally someone will question the advantages of veneered construction, not realizing that the beauty, quality and durability of wood today exists largely because of veneers, according to extension home furnishings specialists at the University of Minnesota.

Virtually all the larger flat visible furniture surfaces are now made with veneers, including tops, fronts, ends and cabinet doors. Legs and other parts which must be shaped by turning on a lathe or which are carved are made from solid wood.

What is veneer? It refers to a series of thin slices of strong hardwood, layered and laminated together with adhesives that hold them in an unbreakable bond. The core and inner layers are hardwoods selected especially for their tough grain structure. This "sandwich" may consist of five, seven or more layers. The face veneer is chosen by the designer as the most perfect pattern to express his design.

Many effects in furniture are possible because of veneer -- matching woods, contrasts, bandings, overlays and inlays. Exotic patterns are available in some furniture because veneer sheets are thin and many such sheets may be cut from different sections of a tree.

Because of their construction, veneers are resistant to warping and splitting. Since the wood has been almost dehydrated, it is less likely to shrink or swell. The veneer process equalizes the stress and strain and thereby provides greater strength.

Another advantage of veneer is economy. Veneers bring the beauty of fine hardwoods into every price range. Without veneers, the cost of such beauty would be prohibitive to most people.

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University of Minnesota
St. Paul, Minnesota 55101
March 8, 1965

To all counties
Immediate release

VOLUME, EFFICIENCY
IMPORTANT ASPECTS
OF FARM PLANNING

The trend toward larger farms continues--partly because of the availability of more and larger farm machines, and partly because of narrower profit margins.

Agricultural economists at the University of Minnesota explain that the continued manufacturing of more and larger machinery makes it possible for one farmer to handle more and more land. Also, narrower profit margins require larger gross incomes.

S. A. Engene, agricultural economics professor, and Paul Hasbargen, extension economist, point out that records of farmers in the Southeast and Southwest Minnesota Farm Management Services show that 67 cents out of every dollar of income were used to pay farm costs other than interest.

As a result, only 33 cents remained for paying interest and giving a return for the family labor and management. If the farmer had borrowed about half of his farm capital at six percent interest, nearly one-fourth of the 33 cents would have gone into interest payments.

How much gross income do you need for your family? The economists explain that if you own all your farm capital, your gross income must be about three times as large as the net income you need. On the other hand, if you must borrow half the money, your gross income must be four or five times the net income.

Engene and Hasbargen say that it is possible to increase volume either by adding more land or by intensifying on your present acreage. Since land values have been climbing steadily, it is necessary to study land investments carefully to be sure that additional land will increase net income.

add 1 - volume, efficiency

Many farmers can increase income from their present land by using better seeds, improved cultural practices and recommended fertilizers and sprays. The economists add that while hard work is still an important ingredient in successful farming, good management is becoming increasingly more important.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
March 8, 1965

To all counties
Immediate release

IN BRIEF.....

Tree seedlings planted in Minnesota last year suffered more than average mortality losses because of the relatively severe drought conditions over much of the state. Land owners who planted seedlings last year are reminded to take care of replacement plantings this spring. Marvin Smith, University of Minnesota extension forester says that unless gaps in windbreak or shelterbelts are replaced in the first year or two, it is difficult to re-establish trees in the "fail" spots. He urges individuals to order their replacement plantings as soon as possible, since it won't be long until nurseries throughout the state will be "swamped" with orders for tree seedlings.

* * * *

Calving time is close at hand. And A. L. Harvey, professor of animal husbandry at the University of Minnesota, reminds cattlemen to make sure that their cows have clean water and minerals available at all times. If the cow is thin and not gaining, she should be fed high quality legume hay, silage and a little grain. He adds that cattlemen should see that their cows get ample exercise, and that they should watch for signs of calving.

* * * *

Milk Producers: The dry milk your processor sells to the government has to meet even more rigid quality requirements now than ever before, since the federal government recently raised its standards for dry milk by decreasing its maximum allowable bacteria count. Thus, if your milk has a high bacteria count, it will be reflected in the count for the finished product, even though processing may have killed most bacteria. Washing and sanitizing equipment after each use is important to help keep bacteria numbers down.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
March 8, 1965

To all counties
Immediate release

BACKTAGGING AIDS
SCREENING FOR
LIVESTOCK DISEASES

Brucellosis and tuberculosis in cattle may have been brought a step closer to eradication through a development started a year ago in Minnesota.

Backtagging has been used in a modified way, to screen cattle for presence of both diseases without slowing the slaughtering process. It also provides a basis for establishing and maintaining accredited TB-Free and Certified Brucellosis-Free areas.

In the past, backtagging alone was satisfactory for brucellosis testing. However, the animal's identity was lost before meat inspectors could check for presence of TB lesions.

The key to the new procedure is a small plastic bag which encases the backtag and a blood sample. This makes it possible to maintain identity of the cow's head, viscera, and carcass with the herd of origin throughout the meat inspection postmortem.

The procedure was developed by state regulatory veterinarians and ARS meat inspectors and animal disease eradication personnel of the U. S. Department of Agriculture. It was perfected in a St. Paul packing plant.

About 2 million cattle and calves are received annually at the St. Paul market, and nearly all eligible cattle are backtagged, mostly by commission companies under contract with the USDA Agricultural Research Service.

As the cattle move into slaughter, the backtag is put in a plastic bag, and the bag is attached to the carcass. After skinning, the viscera is removed, examined, and a blood sample is taken and placed in the plastic bag.

add 1 - backtagging aids

If no tuberculosis lesions are found, the bag is removed. If lesions are found, the bag is left on the carcass which is then diverted for further examination. If tuberculosis is then confirmed, the herd of origin is easily and positively identified.

The bags with backtags and blood samples are all forwarded to the State-Federal serology laboratory, where the blood test for brucellosis is conducted.

Each time a livestock producer markets identified cattle free of brucellosis or tuberculosis, he has further assurance that infection has not entered his herd. This information may be the basis for establishing and maintaining accredited TB-Free and Certified Brucellosis-Free areas.

When the program began in Minnesota in February 1964, about 2,500 cattle were backtagged that month. In December over 16,000 animals were backtagged, approaching 100 percent of the eligible animals entering the St. Paul stockyards.

The plastic bag procedure has been adopted by all eight federally inspected slaughtering plants in Minnesota, plus one plant in North Dakota that has rail inspection. Five Minnesota plants using bed-type slaughtering practices follow a modified procedure.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
March 9, 1965

FOR RELEASE: Thursday P.M., March 11, 1965

IMPROVEMENT PROGRAMS DISCUSSED AT SWINE DAY

LONG PRAIRIE--Swine producers learned here today (March 11) that they can increase profits through sound breeding programs utilizing superior performance tested boars in conjunction with up-to-date nutritional and management practices.

Charles J. Christians, University of Minnesota extension animal husbandman, told participants in a Swine Day Program held in the Courthouse, that hog producers can make both temporary and permanent improvements in their swine operation.

Temporary improvement, he said, can be achieved through prescribed feeding and management practices that will increase litter size, weaning weight and growth rate of the pigs. But as soon as these practices are discontinued, production will regress back to its original level.

On the other hand, permanent improvement can be achieved by following a breeding program that will improve the genetical makeup of the breeding stock. Christians explained that there are two ways in which the breeding system can be permanently improved.

First, the producer can correct the faults in his sow herd by purchasing a sire that is strong in the traits in which his sows are weak. This system is called "corrective mating" and will improve the average merit of the herd.

(more)

add 1 -- swine day

Crossbreeding is the second way to permanently improve hog breeding systems. According to Christians, the basic goal of crossbreeding is to increase profits for commercial hog production through hybrid vigor (heterosis), which results from crossing genetically different breeds. By so doing, he said, the producer can utilize the strong points from different breeds of hogs.

Through crossbreeding the breeder can obtain his greatest advantage in those traits that exhibit the lowest heritabilities and in turn the greatest hybrid vigor. Reproductive traits, such as number of pigs farrowed, number of pigs weaned and litter weaning weights generally exhibit hybrid vigor.

Christians explained that a swine producer could expect to find a 12 to 14 percent advantage of crossbred pigs over purebreds in the number of pigs farrowed and weaned. Also, crossbred weaning weight will be nearly 35 percent greater than purebred litters.

While crossbreeding can increase litter size, livability or ruggedness and growth rate of pigs, it will not increase meatiness, cover up poor management or substantially increase feed efficiency, Christians said. And in order to realize full benefits from crossbreeding, breeders must follow a well organized, systematic plan.

He said a successful crossing program depends on the merit of the parent stock, regardless of breed. Both sows and boars must be of a meat-type and have good performance records.

Christians pointed out that hog producers can greatly strengthen their breeding programs by identifying superior stock through test station evaluation and on-the-farm testing.

The Swine Day Program was sponsored by the University's Agricultural Extension Service. Speakers included extension specialists and faculty members from the University.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
March 9, 1965

Immediate release

DAIRY SEMINAR TO BE FEATURED AT MINN. LIVESTOCK BREEDERS' MEETING

Recent events in mastitis control will come under scrutiny during a dairy seminar to be held in conjunction with the Minnesota Livestock Breeders' Meeting Thursday, March 25, at the St. Paul Campus of the University of Minnesota.

The seminar will be from 10 a.m. until noon in the St. Paul Student Center. It will feature three staff members of the University and two Minnesota dairymen.

Paul Pierson, Lake Elmo, a member of the Board of Directors of the Minnesota Livestock Breeders' Association, will discuss general techniques in setting up a herd for mastitis control. Dean Fisk, South St. Paul, will discuss his experience with the mastitis control program.

Pierson has been cooperating in the mastitis control program with the University for about five years, and Fisk for about a year and a half.

William Mudge, Extension dairyman, will discuss management as it affects mastitis control and Dr. Ralph Farnsworth, Director of the Field and Laboratory Mastitis Control Program for the College of Veterinary Medicine, will talk on "What is Mastitis?"

(more)

add 1 -- dairy seminar

The panel will be moderated by C. L. Cole, head of the Department of Dairy Husbandry.

Mastitis is generally considered to be the greatest single cause of loss of dairy production. Average losses per cow milked are estimated to go as high as \$20 annually.

Furthermore, losses to mastitis are not confined to the time when the disease is active in the mammary glands. There is always a residual effect which, in quarters affected, reduce the production for the life of the cow.

Research and experience indicate that probably no herd is entirely free from this disease. It may be mild, and the clinical symptoms may be undetected.

Mastitis is generally defined as an inflammation of the mammary glands, but one of the problems is that several different organisms may invade the gland and cause specific types of inflammation. Thus, different kinds of treatments are required for different kinds of inflammation.

The afternoon session will be devoted to a business meeting of the Minnesota Livestock Breeders' Association. Dean S. O. Berg of the University's Institute of Agriculture will be keynote speaker at a luncheon session. He will discuss "Projected Plans for the St. Paul Campus and Their Implications for the Livestock Industry."

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65-70-pjt

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
March 10, 1965

FOR RELEASE 11:11. Thursday, March 11

STATE TAX OFFICIAL DISCUSSES PROPERTY TAX

MARCUS FALLS--The continuing importance of the property tax in state and local governments was one of the main topics discussed here today (Thursday, March 11) at a leadership seminar in public affairs.

Lloyd Woodruff, director of research and planning for the Minnesota Tax Department, told the seminar participants that considerable lack of understanding of the property tax seems to exist among many of the state's taxpayers.

He said that while the property tax is by far the largest single source of tax revenue in Minnesota as it is in other states, it is nevertheless the least understood, the most underdeveloped and the one tax subject to the greatest amount of criticism.

He explained that criticism of the property tax usually falls into three major categories--its classification system, assessment system and tax levying system. He added that all three categories merit major consideration by citizen study groups.

Minnesota is one of the few states that has such a complex classification system for its property tax, he said. And this tendency to classify property in a variety of different ways causes considerable confusion among taxpayers, which in turn tends to generate mistrust and suspicion between taxpayer and tax administrator.

The assessment system is also frequently criticized, Woodruff said, mainly in terms of the lack of adequately trained assessors. But, he added, the extent to which we should move toward a more professionalized assessment system in which full-time professional assessors are employed throughout the state is a question that warrants careful consideration.

(more)

add 1 -- property tax

Regarding the present system of tax levying, Woodruff explained that the property tax has retained its position of pre-eminence because it is the "residual tax source out of which shortages in current revenue needs are met."

He explained that the property tax rate is not determined along with alternative means. Since the property tax is, in fact, the only major tax source granted the local governments, he said, "local governmental units are forced to find out how much revenue will be received from other sources, such as state aids, and then decide how much it will have to impose on the property tax."

"Separate from each other, the county, village, city or township and the school district decide how much each is going to impose on the same property tax base," Woodruff said. "No one knows what the total property tax rate will be until all demands have been received by the county auditor."

In contrast with the procedure at the state level, he added, there is no chance to debate or even to see the total property tax rate before it is an accomplished fact.

Woodruff concluded that "it is rather ironic that the most haphazard procedure for determining a tax levy is found in the operation of our most important single source of tax revenue."

The Leadership Seminar is sponsored by the University of Minnesota Agricultural Extension Service.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel, 647-3205
March 10, 1965

Immediate release

MINNESOTA TOWN/COUNTRY ART SHOW OPENS MARCH 14

Beginning Sunday, March 14, 277 paintings and pieces of sculpture by Minnesota rural artists will be exhibited in the 14th annual Minnesota Town/Country Art Show in the University of Minnesota's Student Center Galleries on the St. Paul Campus.

Located on the second floor of the Student Center, the galleries will be opened to the public at noon on Sunday. The show will continue through April 2. Hours for viewing the exhibits will be 9 a.m. to 10 p.m. week days and Saturday, and 12 noon to 10 p.m. Sundays.

More than 200 oils are in the collection, which also includes watercolors, pastels, pencil drawings and a few pieces of sculpture. A head of former President John F. Kennedy is one of the sculptures.

The number of new names among exhibitors is larger this year than it has ever been, according to A. Russell Barton, chairman of the University's Town/Country Art Show. However, familiar names also appear. Mrs. Gladys Sewerson, Nerstrand, for example, entered a mosaic this year. She has missed only one show. This year's exhibition is the 12th for both Mrs. Jennie Arkins, White Bear Lake, and Mrs. Hazel Burtzlaff, Stillwater.

(more)

add 1 -- art show

Sixty of Minnesota's counties are represented by 271 amateur artists--an increase from 47 the first year of the show. All the artists live in rural Minnesota or in towns of 25,000 or less.

Climax of the Minnesota Town/Country Art Show will be a four-day program for rural artists beginning March 30. Featured will be gallery tours, lectures and the annual Minnesota Rural Artists' Association luncheon and business meeting. Included in the program this year will be a seminar on creative writing on Wednesday, March 31, of special interest to individuals who entered the creative writing competition, a new phase of the Town/Country Art Show this year. Winning entries in the writing contest have been reproduced in a limited edition which will be available to visitors during the show.

Reservations for the Minnesota Rural Artists' Association luncheon on March 31 may be made by writing to Town/Country Art Show, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101. Reservations must be made by March 26.

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65-71-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
March 10, 1965

Immediate release

FUNDAMENTAL RESEARCH IN ENTOMOLOGY RECEIVES ADDITIONAL SUPPORT

A University of Minnesota research project on the role of certain bacteria in the lives of insects has received additional support from the U. S. Public Health Service.

The project, directed by Professor Marion A. Brooks in the Department of Entomology, Fisheries, and Wildlife, deals with the symbiotic relationship between insects and bacteria-like organisms (bacteroids) which live in the ovaries, eggs, and fat-body cells of those insects.

The project recently received \$20,067 from USPHS for the current year.

Of fundamental interest in this project is the fact that this symbiotic relationship in insects appears to be similar to the physiology of many disease-producing microorganisms, such as the polio virus and the malaria organism, which live in the tissues of other arthropods and man.

Miss Brooks is studying this symbiotic relationship in one kind of insect, the cockroach, which was chosen because of its value as an experimental animal. It is fairly large compared to many insects, is relatively easy to study, and grows well in the laboratory.

The bacteroids under study are present in every normal cockroach. They occur in the fat-body cells and in cells of the ovaries and eggs, thereby insuring that every newly-born insect also contains the bacteroids in its cells.

Without these bacteroids, these insects will not produce normal growth or color. Through special experimental techniques, the researchers have produced insects without bacteroids which can be kept alive only through feeding of special diets.

Such research has indicated that the bacteroids are involved in supply of vitamins and in amino acid nutrition of the insects.

More recently, the entomologists have been attempting to culture living cells, apart from the insects, which contain the bacteroids. If perfected, such techniques would make possible more intensive study of bacteroids and their relationship to the tissues of other organisms in which they live.

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65-72-pjt

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
March 15, 1965

To all counties
Immediate release

AGRICULTURAL EXPORTS
FROM UNITED STATES
ARE MOSTLY IN DOLLARS

U. S. agricultural exports, hitting an all time high of \$6.1 billion in 1964, may drop somewhat in the current year but the long-run outlook is for a continued rise.

The total may reach \$7 billion by 1970, according to agricultural economist Reynold P. Dahl at the University of Minnesota. This level would assume some increase in commercial sales and continuation and perhaps some enlargement of government disposal of surplus products abroad.

The largest share of our agricultural exports is commercial sales for dollars, accounting for \$4.5 billion of the \$6.1 billion in exports in the year ending June 30, 1964. The rest was under government programs, mostly Food-for-Peace.

Total U. S. agricultural exports nearly doubled from 1955-64. Farm exports for dollars increased a record \$1 billion from 1963 to 1964, partly owing to foreign market developments. Poor wheat harvests in Western Europe and the Soviet Union permitted larger U. S. wheat exports to those areas.

Dahl explains that not all export sales for dollars are without government assistance. Price support programs on wheat, cotton, rice, and dairy products keep their prices above world levels. The government makes export payments to exporters in cash or in kind and sells its stocks at less than domestic prices. About 30 percent of our \$4.5 billion in dollar exports benefitted from such payment assistance in 1964.

Last year, the export market accounted for three-fourths of the wheat production, three-fifths of the nonfat dry milk, a third of the cotton, and two-fifths of the soybeans.

add 1 - agricultural exports

Commodities differ in dependence upon government export programs. Last year U. S. wheat exports totalled about \$1.5 billion, of which 60 percent was exported under federal programs. Exports of oilseeds and oilseed products, in contrast, are mostly for dollars. These totalled \$852 million in 1964, and 90 percent were dollar sales. Soybeans are the most important in the oilseed group.

For the future, Dahl says the 1965 export total will probably decline slightly because of better crop prospects in Western and Eastern Europe. U. S. wheat exports are expected to decline from the 860 million bushel level of 1964 to about 675 million in 1965.

Industrial nations, especially Western Europe, Japan, and Canada, will probably increase their U. S. agricultural imports. Expanded livestock production in Western Europe and Japan will provide larger dollar markets for U. S. feed grains, protein meal, and soybeans.

Behind the expected rise to \$7 billion in exports by 1970 is the expectation that U. S. farm output will increase faster than the domestic market can absorb it at prices considered adequate. On the other hand, the world's food needs will probably increase faster than food output.

Economic growth will continue in industrial countries where the demand for livestock products will increase, Dahl says. This in turn will stimulate the dollar demand for livestock products, feed grains and oilseeds that can be produced cheaply in the U. S.

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Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
March 15, 1965

To all counties
Immediate release

TRENDS IN EARNINGS
OF FARM FAMILIES
ARE REVIEWED

Farm income patterns in recent years have shown at least two central trends.

First, average farm income per farm has increased steadily during the past ten years.

Secondly, the money that farm families receive from non-farm jobs is increasing.

Extension economist Paul Hasbargen at the University of Minnesota points out that realized gross income from the agricultural sector increased from \$32 billion to \$42 billion between 1950 and 1964. Total production expenses have increased at about the same pace.

Net farm income was about \$12.5 billion for each of the past four years and it is expected to be about the same again in 1965.

Behind these trends is the expectation that livestock receipts will set a new record in 1965. Also, anticipated larger government payments should help push gross farm income to a new high.

Increased farm production expenses, however, will prevent any sizeable gain in total net farm income.

The increase will come in realized net income per farm, through a decrease in farm numbers, which continues each year as more farmers reach retirement age and much of their land is consolidated into other farm units.

In 1963, the 1,587,000 farmers with gross sales of \$5,000 or more accounted for 91 percent of the cash receipts and 79 percent of the total realized net farm income.

Income from off-farm sources has been increasing for farms of all sizes, but the biggest increases are for families on "non-commercial" farms, those with gross farm sales of under \$5,000.

add 1 - farm income

For farms with less than \$2,500 gross sales, average off-farm income increased from \$2,574 in 1959 to \$3,222 in 1963. That was a larger increase than for any other size category.

In spite of the overall decrease in farm numbers, Hasbargen points out that the total number of commercial farms with gross sales of \$10,000 or more has actually increased since 1959. The earning of the million farm families now in this group is comparable to earnings of non-farm families.

The number of farms with sales between \$5,000 and \$9,999 decreased by 84,000 between 1959 and 1963. Hasbargen says this group will continue to decrease since such a size is no longer an economic farm unit. Many will "graduate" into the larger sales categories; others will turn more to non-farm income sources.

Among farms with sales of \$2,500 to \$4,999 about half their total income already comes from off-farm sources. And for farms with sales under \$2,500, three-fourths of their income was from off-farm sources. Sixty percent of this bottom group, in terms of farm sales, are classified as part-time farmers and earn five times as much off the farm as they do from the farm operations.

This bottom category in farm earnings totals slightly more than 1.5 million families. Rapid adjustments are already being made by them. Their numbers declined by almost 600,000 in the 1959 to 1963 period. And apparently, Hasbargen adds, only about 10 percent of these people moved up into one of the larger sales classes; the rest quit farming.

For the future, Hasbargen says families in the non-commercial category can be expected to show a decline in number, and to depend more and more upon off-farm income.

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Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
March 15, 1965

To all counties
4-H NEWS
Immediate release

4-H TRAINS MEMBERS
TO BE FUTURE
COMMUNITY LEADERS

Teenagers can be a real asset to Minnesota communities. Young adults can provide future community leadership when they are properly trained.

As one of its functions, 4-H clubs give members training in citizenship and leadership. Each year 4-H clubs in Minnesota enroll some 11,000 members in the junior leadership project. Responsibility through this project is assigned to 4-H'ers at the beginning of the 4-H year.

A junior leader is an older club member, usually between the ages of 14 or 19, who has had one or more years of successful work in 4-H. The junior leadership project is divided into four units: junior member leader, junior club activity leader, junior project leader and junior club leader.

Unit one, junior member leader, requires the 4-H'er to supervise the project work of two or more younger 4-H members. He assists the younger members with their records, project work and club activities. The junior member leader guides the interest of the younger 4-H'er by visiting his home, answering questions about his project, encouraging him to demonstrate or exhibit his project and assisting him with his project records.

The junior club activity leader (unit two) helps the adult leader plan, organize and carry out one or more major club activities during the year. He produces ideas for window displays, booths, floats, and club tours. The 4-H'er can communicate with community leaders, club leaders, and other teenagers about club programs which will improve the community.

-more-

add 1 - junior leadership

The major responsibility of the junior project leader (unit three) is to assist an adult leader in teaching part or all of a 4-H project. As an experienced project member, the junior leader will assist members in the proper use of their records, explain project materials to members, visit the homes of younger members, and assist the members to demonstrate, judge or exhibit.

A junior club leader (unit four) helps with general club operation. He may help provide leadership for planning and carrying out the yearly club program, give project and record keeping instruction, help with club enrollment campaigns, help the officers on parliamentary procedure or represent the club on special committees.

Junior leaders can receive leadership training at the State 4-H Junior Leadership Conference. Awards and trips are available to those junior leaders doing an outstanding job.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
March 15, 1965

To all counties
ATT: HOME AGENTS
Immediate release

LIGHT TOUCH
IMPORTANT IN
SEWING SILK

Gay floral silks rate fashion headlines this spring because 1965 styles are feminine, and there's nothing more feminine than a flowered silk print.

Silk shantung, flat crepes, tie silks, silk sheers are among the silks available in yard goods for the home sewer. But the woman who plans to make a silk dress, suit or blouse should remember that silk is a beautiful luxury fabric which needs to be handled with special care, cautions Thelma Baierl, extension clothing specialist at the University of Minnesota. Gently and lightly are words to remember in cutting and sewing silk, she points out.

When pinning a pattern on the fabric, use very fine pins, since silk marks easily. Use pins close together to prevent silk from slipping and moving when being cut.

Avoid machine basting, which may leave marks on the fabric. Instead, pin or hand-baste seams and darts. Silk thread and a fine needle for both basting and permanent stitching will help eliminate marking.

Light sewing machine pressure is important for silks. Have just enough pressure to carry the fabric gently and evenly under the pressure foot. The tension will probably have to be loosened so seams will not pucker. About 12 stitches per inch on heavy silk and 15 on lighter weight silk are recommended. Make a stitching test on a double strip of fabric before beginning to sew to be sure what adjustments you will need to make.

Before pressing, test a scrap of material to find the proper heat setting and to see whether a light steam will water spot the silk. Always press on the wrong side.

Most silks need interfacing and underlining that is related to the weight of the fabric and the styling of the garment. This is particularly important for sheers, Miss Baierl says.

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March 15, 1965

To all counties
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IN BRIEF.....

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Mastitis, generally considered the greatest single cause of loss of dairy production, causes average annual losses estimated to go as high as \$20 per cow milked, say University of Minnesota dairy husbandmen. There is always a residual effect which, in quarters affected reduce the production for the life of the cow. Research and experience indicate that probably no herd is entirely free from this disease. It may be mild, and the clinical symptoms may be undetected. One of the problems is that several different organisms may invade the gland and cause specific types of inflammation. Thus, different kinds of treatments are required for different kinds of inflammation.

* * * *

Increasing efficiency in lumber production is dictated by increasing competition within the lumber industry, says William Miles, extension forester at the University of Minnesota. He says this efficiency is most frequently met with technological improvements in machinery and new innovations in the sawmill.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
March 15, 1965

Immediate release

MERIT AWARD WINNERS NAMED AT MINN. TOWN/COUNTRY ART SHOW

Nineteen amateur rural artists have received merit award ribbons for works now on display at the University of Minnesota's Town/Country Art Show in the St. Paul Campus Student Center Galleries.

Receiving merit awards for oil paintings were Hilda Ammerman, Route 1, Willmar; Ruth Bendit, Lester Prairie; Mrs. Niel Freeberg and Esther M. Jacobson, St. Peter; Doris Gardas, Route 1, Red Wing; Bertha Andersen, Center City; Ada A. Johnson, Parkers Prairie; Loni Lindholm, New Brighton; Mrs. Lillian S. Ollila, Virginia; Lorene Schumacher, Perham; Fred Schapekahn, Route 1, New Ulm; Arnold Kramer, Wabasso.

Merit awards for water colors went to Patricia S. Backman, Waterville; Mrs. Dorothy Cina, Stanchfield; and George W. Larson, Falcon Heights. Other award winners were Betty Karas, Pine City, for wood sculpture; Shirley Hanson, 5112 Prescott Drive, Hopkins, for enamel on copper; John Durfey, Winona, mixed media; and Shirley Brown, 4 Thompson Lane, North Caks, water base paint.

The award-winning works will be exhibited at the American Swedish Institute in Minneapolis from April 11 to May 9, according to A. Russell Barton, chairman of the Town/Country Art Show. They were selected from works submitted by 277 Minnesota amateur rural artists.

The Town/Country Art Show opened for its 14th year on March 14 and will continue through April 2. It is presented by the Department of Agricultural Short Courses with the sponsorship of the Agricultural Extension Service and the General Extension Division.

The St. Paul Student Center Galleries will be open to the public daily from 9 a.m. to 10 p.m. daily except Sundays when the hours will be 12 noon to 10 p.m. The show will close at 5 p.m. on April 2. A writing workshop and a special program of art lectures, demonstrations and gallery tours are scheduled for four days beginning March 30.

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March 15, 1965

Immediate release

PROGRESS IN TURF RESEARCH REPORTED AT SHORT COURSE

Mixtures of grasses that will grow well in shade, chemical controls that will eliminate the chore of mowing, a long-lasting, slow-releasing fertilizer that needs to be applied only once a season--these are some of the problems engaging the attention of University of Minnesota researchers in the Institute of Agriculture.

When the research is completed, it will be of value to the home owner as well as to individuals professionally concerned with management and care of turf for golf courses, parks, sodding institutional grounds and recreational areas, according to D. B. White, associate professor of horticultural science at the University.

Progress reports of the research were given at the Turf Management Short Course Tuesday (March 16) on the University's St. Paul Campus. The turf research is a cooperative venture of University horticulturists, agronomists, plant pathologists, agricultural engineers, soil scientists and entomologists.

Twenty-four different varieties of grasses are now being tested by horticulturists at the arboretum and at the branch agricultural experiment stations to see how they perform in different areas of the state, White reported. Other research includes an ecological study to ascertain the performance of mixtures of grasses in shade, a selection program with bent, rye and fescues to develop superior grasses for the home lawn and highway, and testing of growth control chemicals that may be substituted for mowing. Thus far the performance of the growth control chemicals has been too variable in Minnesota to warrant recommending, White said.

(more)

add 1 -- turf research

As a result of the Kentucky bluegrass breeding program, some promising strains have been developed, H. L. Thomas, associate professor of agronomy and plant genetics, reported. One dark green grass which is especially promising is disease resistant and will probably tolerate low mowing but will need more testing before it is introduced.

A. M. Flikke, professor of agricultural engineering, described experimental plots at Rosemount Agricultural Experiment Station where electric heat is used to expedite the growing season in spring and extend it in the fall--an experiment of special interest to managers of golf greens and athletic fields.

Testing of nitrogen fertilizers to find one that can be applied only once a year to home lawns is only one phase of the turf fertility research carried on by the Department of Soil Science, according to Rouse Farnham, assistant professor of soil science.

Ben Warren, Palos Park, Ill., told the group that using sod to establish desired turf cover greatly simplifies the early stages of management, whether one is concerned with a putting green or a roadside embankment.

Putting greens illustrate the ultimate in care, and preparing grass for this use is a sod nursery's greatest challenge, Warren declared. However, residential and industrial lawns comprise the largest market for most turf nurseries. Sod is offered to amateur buyers in such a competitive market that hardening off to facilitate transplanting is impossible, because more succulent grass looks and sells better, he said.

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65-76-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
March 16, 1965

Immediate release

REVIEW OF 'FOOD-FOR-PEACE' PROGRAM PROPOSED

A review of this country's "Food-for-Peace" program has been suggested by a pair of agricultural economists at the University of Minnesota.

According to J. S. Mann and W. W. Cochrane, the present program, although an important aspect of American foreign policy, is not realizing its full potential in promoting economic development.

In the March issue of Minnesota Farm Business Notes, a publication of the University's Agricultural Extension Service, the economists state that the time has come to review, appraise and recast the program in order to increase its effectiveness in helping to lift the world out of poverty.

The idea of using food to promote peace dates back to the days of World War I. While early efforts were aimed primarily at providing relief after wars and natural calamities, during the past decade food has been used as an effective tool in economic development.

Over the years, food programs have helped to lessen famine and hunger in many parts of the world. They have also helped to provide resources for economic developments of developing countries, and to find new markets for U. S. farm products.

(more)

add 1 -- food for peace

The economists explain that the greatest landmark in the history of "Food-for-Peace" was the passage in 1954 of the Agricultural Trade Development and Assistance Act, better known as Public Law 480.

The original law included provisions for the sale of U. S. surplus farm products for foreign currencies; for donations of such products to foreign governments for disaster relief; and for grants of commodities to promote economic and community development.

The law was amended in 1959 to include provisions for long-term dollar credits to facilitate foreign buying of U. S. farm products.

Foreign currencies received from the sale of surplus farm products under PL 480 are to be allocated for--among other things--loans and grants to foreign nations for economic development.

The economists point out, however, that so far utilization of these allocated funds has been extremely slow. In June of 1963, only 48 percent of loan funds, and 30 percent of grant funds allocated to underdeveloped countries had been dispersed.

Another aspect of the present program which needs review, according to Mann and Cochrane, has to do with the granting of food commodities to developing countries.

They explain that many recipient countries view PL 480 as a shortrun measure adopted by the U. S. to reduce its farm surpluses. Because of the uncertainty of the length of food aid programs, they fail to adequately integrate such food aid into their development programs.

According to the economists, these programs should be formulated for several year's duration, and the length of the program should be defined and agreed upon by both countries.

They also suggest that the United States make better use of food aid as a leverage for requiring recipient countries to take needed action for supporting and pressing their development programs.

(more)

add 2 -- food for peace

They explain that even with the best efforts to increase food production, many countries are not able to fill the food gap which results from having to provide more food for surplus labor employed on other development projects.

Also, since most countries consider better public health and medical facilities as important aspects of their development programs, populations increase with increased life span. This increase in population then consumes any increase in food production that has resulted from efforts to develop local agricultural programs.

According to Mann and Cochrane, the United States can contribute significantly to the economic development of these nations through expanded use of our "Food-for-Peace" program.

They add that if these countries could be helped through their early development periods, poverty and misery of two-thirds of the world could be greatly improved. And foreign food aid through PL 480 should be an important part of that assistance.

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65-77-vak

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
March 19, 1965

Immediate Release

NEW STAFF MEMBER NAMED AT UM

William F. Bear, who has been on the staff at Iowa State University since 1957, has been named associate professor of agricultural engineering and agricultural education at the University of Minnesota.

His appointment, approved Friday (March 19) by the Minnesota Board of Regents, will be effective June 1.

According to L.L. Boyd, head of the department of agricultural engineering at the University, Bear will be involved primarily in developing a continuing education program for vocational teachers throughout the state.

In addition, he will be teaching at the University and conducting research in the area of farm mechanics.

A native of Iowa, Bear received his B.S., M.S., and Ph.D. degrees from Iowa State University, Ames, Iowa. His doctoral work was in the areas of education, agricultural engineering and agronomy.

Before joining the staff at ISU, he taught vocational agriculture at high schools in Sumner and Eralham, Iowa. He served in the U.S. Navy from 1944 to 1946.

Bear held positions of treasurer, vice president and president of Phi Delta Kappa while on the staff at ISU. He is also a member of Phi Kappa Phi, Gamma Sigma Delta, the Iowa State Education Association and the American Society of Agricultural Engineers.

He is married and has five children.

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65-78-vak

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
March 22, 1965

To all counties
ATT: HOME AGENTS
Immediate release

EGGS, PRUNES
TOP LIST OF
APRIL FOODS

Eggs will continue to give consumers one of their best protein buys during April. Along with prunes, eggs head the U. S. Department of Agriculture's list of plentiful foods for the month in which Easter falls.

Broiler-fryer chickens, canned pink salmon, cabbage, carrots, onions, dry peas, canned pears and honey are other foods consumers will want to put on their shopping lists. All of these foods are expected to be in abundant supply and good buys.

Figuring cost per pound, eggs are an unusually good buy. Their low cost should be good news for the youngsters who want to dye eggs for Easter. Egg dishes, such as omelets and souffles, can come to the aid of the homemaker in planning Lenten menus. This is the time, too, to splurge on some of those tempting desserts that feature many eggs.

Prune cake, prune pie, prunes for breakfast -- these are some of the ways to use the plentiful supply of prunes. U. S. dried prune production in 1964 was some 38 thousand tons more than the year before.

Budget-conscious homemakers will find canned pink salmon and chicken two excellent buys. For chilly April days, a split pea soup will make a nutritious, inexpensive meal.

Supplies of fresh cabbage and carrots will be heavy, because both of these vegetables survived freeze damage that hurt many other crops in the south. Minnesota medium-size yellow globe onions are also plentiful to add flavor to main-dish foods.

A record-setting pack of pears during the 1964-65 season will make canned pears one of our most abundant foods this month. April will be a good time to take advantage of specials on this canned fruit, so popular for salad.

Look for plenty of honey for sweetening for breakfast toast, cereal and grapefruit.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
March 22, 1965

To all counties
4-H NEWS
Immediate release

4-H'ERS SHARE
FUN IN SPECIAL
FESTIVAL

This year some 12,000 4-H members, including many (or exact no.) from _____ County are participating in a program that gives them an opportunity for creativity and sheer fun, as well as expression of their talents.

The Share-the-Fun program recognizes the need for self-expression, development of latent talent and encouragement of creativity, says Wayne Bath, associate state 4-H club leader at the University of Minnesota. "Learning by doing," the 4-H motto, is demonstrated in this program as 4-H'ers display their talents through their own efforts.

Performing on the stage gives 4-H members confidence and helps them build poise and self-assurance. Not the least important aspect of the program, Bath adds, is the fun and fellowship young people share as they work together in preparing Share-the-Fun acts for their festival.

(Use this paragraph to describe present county activities in the 4-H Share-the-Fun festival).

County residents will have an opportunity to see the 4-H talent displayed in county, district and state 4-H Share-the-Fun festivals. These events will feature musical, dramatic, folk dancing and novelty numbers. Each county will nominate two acts for possible participation in district events. The final selection of one act for the district festival will be made by a state selection committee. Approximately 16 to 18 acts will be chosen at the district festivals for a state 4-H Share-the-Fun program to be given during the Minnesota State Fair. Numbers will be picked on the basis of presenting a well rounded program for the enjoyment of the listening audience.

Originated in 1949, the Share-the-Fun program is sponsored now, as it was then, by the University of Minnesota Agricultural Extension Service and Cargill, Inc., Minneapolis.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
March 22, 1965

To all counties
Immediate release

IN BRIEF.....

Cost is certainly an important consideration when buying herbicides. But Gerald Miller, extension agronomist at the University of Minnesota, reminds farmers to consider other important factors such as herbicide performance and selectivity, soil type, crop rotation and kinds of weeds present.

* * * *

Hog Producers looking for ways to increase profits might consider entering pigs at the Minnesota Swine Evaluation Stations. Charles J. Christians, extension animal husbandman at the University of Minnesota, explains that pigs there are fed out under uniform conditions and evaluated for rate and efficiency of gain and meatiness. With this information, producers can upgrade their herds for faster, cheaper gains, and for producing the kind of pork products consumers prefer. For further information contact Christians at Extension Animal Husbandry, University of Minnesota, St. Paul, Minnesota 55101.

* * * *

Woodland Owners: If you're one of the 10,000 woodland owners in Minnesota who will be purchasing tree seedlings from nurseries this spring, remember this bit of advice from William Miles, extension forester at the University of Minnesota: Keep seedlings moist at all times. When you get your seedlings, open the bundle and thoroughly saturate the roots. Store the trees in a cool moist place out of the wind and sun and keep the roots in water when planting. He adds that if you have lots of trees to plant and level on gently rolling ground, the tree planting machine can save considerable time and labor. Planting machines can be scheduled through either county agents' offices, the SCS office, or local forestry offices.

* * * *

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
March 22, 1965

To all counties

County agent: This
is the first of
several articles on
Fungicides and Food
Production.

FUNGICIDAL CONTROL
OF PLANT DISEASES
VITAL TO ECONOMY

Immediate release

Are chemicals necessary for control of plant diseases?

Yes, says James Froyd, extension plant pathologist at the University of Minnesota. He says U. S. Department of Agriculture estimates put crop loss at \$3 billion each year, due to plant diseases.

Plant diseases are more of a problem now than 100 years ago. Several aspects of modern agriculture lend themselves to disease initiation and spread. Cultivation of vast areas of land, planting hundreds of thousands of acres to one crop variety, and interstate distribution of seed, plants, and produce contribute to an increasing disease problem.

Fungicides are not the only tools used in disease control. Crop rotation, sanitation, weed control, resistant varieties, and adjusting planting and harvest dates to avoid diseases all help control plant diseases. In greenhouses, temperature and moisture control plus soil sterilization are additional disease control measures.

Yet, many practices do not apply in all disease situations. Sometimes the only alternative is chemical control, and then only if a suitable fungicide is available for the problem.

Fungicides have been valuable for the control of certain plant diseases. Late blight of potato is one example. Just over 100 years ago, this disease ruined the potato crop in Ireland for several years in succession. Since potatoes were the staple diet, millions of Irishmen starved to death or left the country, unable to control the disease.

add 1 - fungicidal control

Famines are not much of a worry at present in our part of the world but crop yields and quality are of first concern. Plant diseases can harm both. Fungicides provide additional assurance that we can continue to produce high quality crops in large quantities.

Fungicides are used not only on food crops but on ornamental plants as well. Disease-causing organisms are not fussy about the plants they attack. Whether on the farm, in the greenhouse, garden, home, or recreational area, all plants are susceptible to one or more diseases.

A fungicide must meet several requirements to adequately protect plants from diseases. First, it must be able to kill or inhibit the growth and development of the disease-causing organism in question. And it must do so without being too injurious to the plant.

Also, a fungicide should be easy to apply, effective for a fairly long time, economical to use, and nontoxic to humans if remaining on the crop after harvest.

These requirements, plus many others, make the job of producing new fungicides a costly venture. It is not uncommon for a manufacturer to spend several million dollars testing a promising fungicide before marketing it.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
March 22, 1965

To all counties
Immediate release

MAPLE HARVEST
CLOSE AT HAND

It won't be long now until Minnesota woodland owners by the hundreds will be busy with the annual harvest of maple syrup.

According to Marvin Smith, extension forester at the University of Minnesota, moderately warm days followed by freezing nights are ideal conditions for starting the sap to flow.

Smith says that any woodland owner in the state who has a maple grove on his land is passing up a good spring crop if he fails to harvest maple syrup. Farmers can expect to net as much as \$3 for every hour they spend making maple syrup. And this includes tree tapping and cleaning up after the season.

Not only that, he says, but the maple syrup harvest takes place during a relatively slack time in the farmer's year. It occurs in the late winter and early spring when most other farm activities are slowed down.

For the woodland owners who have already discovered this source of extra income, Smith explains that despite recent technological developments in syrup-making, sanitation remains a big factor in the quality of the final product.

He says that every item of equipment that comes in contact with the sap should be thoroughly cleaned and sanitized, since contamination of the sap with molds, bacteria and yeasts down-grades syrup quality considerably.

Buckets, covers, spiles (spouts), storage tanks and evaporating pans should be washed with plenty of hot water and detergent to remove all grease, dirt and sediment. After the equipment is washed in a mixture of nine parts water with one part household chlorine bleach, it should be air dried without rinsing.

On the day tree tapping begins, spiles should be carried in a bucket containing one part chlorine bleach to 20 parts water. Spiles should be removed wet from the bucket and placed in the tap hole to reduce the possibility of bacterial infection.

add 1 - maple harvest

Smith says that research has identified the taphole as a primary source of infection of the sap. Thus, power driven bits, spiles and the taphole itself should be rinsed with a 10 percent solution of chlorine compound to reduce the number of micro-organisms in the taphole.

He adds that it is also advisable to apply germicidal pellets to the taphole before the spile is inserted. The pellets dissolve slowly in the sap, preventing growth of contaminating organisms.

By holding down the growth of micro-organisms in the taphole, sap will flow more freely for a longer period of time, resulting in higher sap yields. Smith explains that some producers have reported as much as a 50 percent increase in sap yields from trees protected with germicidal pellets.

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Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
March 22, 1965

To all counties

Immediate release

RED PINE MAY
STAGE COMEBACK
IN MINNESOTA

Minnesotans are witnessing the beginning of a red pine renaissance in the northern reaches of their state.

The red pine, or Norway pine to many, will probably never take over the throne once occupied by the white pine, which for more than 250 years was the king of the American woods and the center of lumber supply from New England to the Lake States.

Yet, the Norway pine will be the predominant pine of the future, say extension foresters Bill Miles and Marvin Smith at the University of Minnesota.

With more than 25 million Norway pine planted annually over the past 5 years, these stately, reddish-barked trees will grace more and more forest land in the future.

But there is a long way to go. White and red pine together account for a little more than 400 thousand acres, which is less than 2 percent of the entire forested acreage of the state. The demise of the white pine, while underlining one of the dramatic chapters of the state's history, also spells out one of the challenges in development of natural resources in most of the state.

In the era of the white pine, foresters estimate, more than 500 billion board feet were cut in the U. S., of which 70 billion was taken in Minnesota. The white pine was known in colonial days as "crown" timber and was widely used as ship masts.

Norway and jack pine were in the virgin forests, but in far less volume than white pine.

-more-

add 1 - pine trees

Today, the pines total about 17 million cords in Minnesota, and about 10 million cords are jack pine.

The current rate of red pine planting in the state will apparently continue some time into the future, the foresters say. Jack and white pine acreages will probably decline.

White pine is imperiled by white pine blister rust and insects. A genetic breakthrough leading to resistant white pine species, or some kind of antibiotic or other development in drugs would probably be necessary to make white pine a tree with economic potential.

Yet, the white pine is highly desirable from the standpoint of construction and finishing.

Also in Norway pine's favor is its superiority to other pine species for saw logs, veneer, Christmas trees, pulpwood and other uses. It is adaptable to a wider range of site conditions, and grows faster than most others. It has a high survival rate as a seedling and fewer insect and disease problems.

Its popularity as a Christmas tree reduces the cost of establishing Norway pine plantations.

Norway pine has harvest potential throughout the life of a plantation. After the Christmas tree cuttings, early thinnings can be used for posts, pulpwood, and small poles. Later on, intermediate thinnings are used for small saw logs, utility poles, and larger posts. Still later thinnings yield large utility poles, saw logs and piling. And at final harvest, the Norway pine is a product for the saw log, pile and pole market.

How about the other pines? The jack pine is unlikely to ever find a place among the important timber trees of the country, because of its small size. But it is useful as a pulp species.

Scotch pine is a relative newcomer to the state, and has gained wide popularity as a Christmas tree. In 1960, scotch pine accounted for 11 percent of the Twin Cities market, and commanded 26 percent of the market in 1964.

add 2 - pine trees

Norway pine, meanwhile, held its position at about 30 percent of the Twin City market over this same period.

Norway pine, then, continues to ride the crest of a popularity wave. State nurseries produced about 5 million seedlings of this species in 1958, over 13 million in 1960, and have produced more than 20 million since then. This, in addition to the 5 million seedlings from federal and private nurseries, has brought the total production of Norway pine seedlings and transplants to about 26 million per year.

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Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul 55101 --Tel. 647-3205
March 23, 1965

* Research *
* Feature *

Immediate Release

RESEARCH SEEKS ANSWERS TO WINTER HARDINESS QUESTIONS

A way to protect a popular evergreen tree against Minnesota's rugged winters is one recent outcome of a long-term research project on plant hardiness at the St. Paul Campus of the University of Minnesota.

The recent finding concerns the arborvitae, a small tree coveted by homeowners and landscape planners, but susceptible to winter injury if exposed to open sunlight all winter. Arborvitae on south sides of buildings often show heavy winter burn-killing of branch tips.

In the past, the most common explanation was that the injury was a result of excessive drying out. But in the University's Department of Horticultural Science, W.C. White and C.J. Weiser found such was not the case.

They studied desiccation in the field and laboratory, finding that reducing it ordinarily did not reduce winter burn. And where they produced desiccation injury in the laboratory, in controlled growth chambers, the entire plant would die--not merely the branch tips.

The explanation, the research showed, was that the principal factor was rapid changes in temperature--rather than drying. In an exposed area, the temperature may drop as much as 15 to 20 degrees within a minute when the sun goes behind an object during winter. On the north side of a building, where the shrub is in the shadows all day, such quick temperature changes are avoided.

These rapid changes, in the laboratory, killed tissues of arborvitae taken from outdoors.

Thus, to protect arborvitae in locations exposed to the winter sun the important thing is to somehow avoid sudden temperature changes. Nurseries are now experimenting with burlap as a winter shade for arborvitae, and a variety of adhesives which could be used to stick a reflective flocking material on plants are being studied by University horticulturists.

(more)

add 1 -- winter hardiness

Such flocking might be sprayed on in fall and washed off in spring by rains. They protect the plant through reflecting part of the sun's rays and thereby reduce the rate of temperature change.

The arborvitae research is one illustration of studies being done under a project currently funded by a seven year grant totalling \$195,065 from the Louis W. and Maud Hill Family Foundation.

Weiser, who is in charge of the project, says the long-term intent is to learn more about what winter hardiness is. In spite of scores of years of research, much is yet to be explained.

Weiser says the problem may be stated in three general questions.

How does low temperature injure plants? Why are some more resistant to cold injury than others? And how does a given plant change its resistance to cold stress from one time of year to another?

Many Minnesotans would like answers for a number of plants and crops. Winter injury to fruit and ornamental and crop plants costs millions of dollars each year.

While those three basic questions still escape complete understanding, many things are known. One is that low temperature alone is seldom the problem. There must be ice crystals in plant cells for injury to occur in normally hardy plants.

Yet, not all kinds of freezing are harmful. Ice crystals may form in areas between cells, draw moisture from within the cells and, in most cases, cause no injury. That is termed extracellular freezing.

If, on the other hand, the freezing is intracellular (ice crystals form inside the cells) the cell is invariably killed.

In studying plant hardiness, then, scientists such as Weiser and his colleagues are looking for any mechanism that may prevent intracellular freezing.

Is cold injury resistance in plants similar to such resistance in the animal kingdom? Some insects contain an antifreeze agent in their blood, but such compounds have not been found in plants.

(more)

add 2 -- winter hardiness

Weiser and his associates are studying a number of theoretical leads. One hypothesis among scientists is that the plant changes some starch to sugar in the fall, thereby perhaps explaining at least one kind of winter hardiness. Sugar solutions do not freeze at as high a temperature as water.

Yet, the potato also undergoes a starch-to-sugar conversion if left in the cold, and it has little resistance to cold.

Working with the red-osier dogwood (a handy plant for plant hardiness experiments) Weiser and others looked more closely at the starch-to-sugar conversion. They found that the sugar content of this dogwood undergoes an overall change of under one percent during the entire period of acclimation to cold weather, which occurs during late summer and fall.

Such a small amount of change could hardly explain the fact that the red-osier dogwood, which in summer would be injured at 20 degrees Fahrenheit, can withstand temperatures as low as -125 degrees (shown in freezer tests) in midwinter.

Yet, Weiser has not ruled out the role of starch and sugar. Research has shown that adding certain kinds of sugars, such as raffinose, may reduce the temperature which a dogwood can withstand.

The possibility, Weiser and others suspect, is that certain types of carbohydrates may somehow protect certain enzymes of plants, and that enzymes may ultimately explain how hardiness develops. Thus the conversion of starch to sugar may add to hardiness if certain kinds of sugars become more prominent in the plant.

Cold injury has been studied more than 200 years, and by the University's Department of Horticultural Science since 1912. Why haven't more breakthroughs been made in the problem?

Weiser suggests that one problem has been that research in the early years centered on susceptible plants, rather than on the resistant ones. He intends to work intensively on plants such as the red-osier dogwood, which have effective hardiness and therefore contain the mechanism which scientists hope to discover.

At least five years of the project, Weiser says, will include learning everything there is to know about this dogwood, eliminating the explanations that don't fit.

(more)

add 3 -- winter hardiness

The project is continuing along various lines. In cooperation with plant breeders, research men are screening seedling populations, freezing them in chambers to quickly and efficiently rule out those which are nonhardy and of no further use.

Genetic studies are being conducted on azaleas, redbud, forsythia, and tree fruits, to determine whether certain changes in chromosomes are related to stress resistance. The scientists will create plants with a polyploid chromosome complement and compare hardiness of these plants with others having the standard diploid number of chromosomes.

Overall metabolism of the red-osier dogwood and arborvitae is being studied. Scientists are feeding it radioactive carbon to determine overall changes in sugars, starch, amino acids, organic acids and organic phosphate compounds.

Dwarfing apple rootstock hardiness is being evaluated. Weiser says evidence indicates that some rootstocks used in Minnesota are marginal in hardiness. Roots can acclimate to cold weather, but not as markedly as tops of plants.

A related line of study is effect of scion variety on root hardiness. There is evidence that when a scion is grafted to a root, survival of that root over winter may depend on what is grafted to it.

Several chemicals, which might increase cold resistance a few degrees, are being tested. Two are DMSO (dimethylsulfoxide) and decenylsuccinic acid, which if successful, could be useful for partial protection from frosts on fruit trees in the blossom stage, annual seedlings, and fall flowering and fruiting ornamental and crop plants.

Since Weiser's winter hardiness project began in 1961, it has received about \$300,000 in grant monies, most of it from the Hill Foundation.

Weiser is planning a tour of winter hardiness research stations around the world this spring. He will visit stations in England, continental Europe, the Scandinavian countries, Russia, and Japan.

Along with drouth, winter injury is the major limiting factor in outdoor plant production, Weiser says. He believes that practical field treatments to reduce winter injury could save millions of dollars on horticultural crops in Minnesota alone. Such treatments are a prime goal of his research. ### 65-78-pjt

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
March 24, 1965

Immediate release

MINIMUM TILLAGE FIELD DAY SCHEDULED FOR MAY 4 IN SOUTHWEST MINN.

Minimum tillage, a modern approach to soil management, will be the focal point of a special field day May 4 at Currie in southwestern Minnesota.

Sponsors of the event include the agricultural extension service of the University of Minnesota, the University's southwest experiment station at Lamberton, the soil conservation service, the Murray County soil and water conservation district, and radio WNAX, Yankton, South Dakota.

Farm people from southwestern Minnesota, South Dakota, Nebraska, and northwestern Iowa will be invited to the event, to be held on the Ray Ruppert farm near Currie in Murray County.

The event will feature a variety of minimum tillage equipment in actual operation, planting corn either in stalk ground or in spring or fall plowing. Tillage systems to be demonstrated will include wheel track--planting, planting behind a disc, field cultivator, or chisel, till-planting, strip-tillage, ground preparation with a rotary tiller, and others.

More than ten different implement firms will provide equipment for the various demonstrations.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
March 24, 1965

FOR RELEASE at 2 p.m., Thursday, March 25

CHARLES EWALD PORTRAIT PLACED IN UM LIVESTOCK HALL OF FAME

Charles Ewald, Janesville, Minn., a widely-known figure in livestock circles in the upper midwest, was honored today during the annual meeting of the Minnesota Livestock Breeders Association at the University of Minnesota.

A portrait of Mr. Ewald, 79, was presented by the Association to the University, and was placed in the University's Livestock Hall of Fame in Peters Hall.

The citation noted Ewald's lifetime of efforts in Shorthorn cattle breeding. In the 1940s, he brought into his herd a number of cattle from Scotland and developed several families of Shorthorn cattle.

He has shown his cattle extensively in the upper midwest, including the Minnesota State Fair, the Black Hills Winter Show, the Sioux Empire Winter Show, the South Dakota State Fair, and other events.

Ewald has been a director of his local creamery board, cooperative elevator board, has been director and president of the Minnesota Shorthorn Breeders' association, and director of the Waseca County Fair.

He served for 20 years on the Minnesota Livestock Sanitary board.

Mr. Ewald is the 48th person to be recognized with a portrait in the Livestock Hall of Fame.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
March 24, 1965

Immediate release

ADMINISTRATIVE ASSISTANT NAMED BY UM AGRICULTURAL EXTENSION SERVICE

Earl B. Peterson, Raleigh, N. C., has been appointed instructor and administrative assistant for the Agricultural Extension Service at the University of Minnesota, according to Luther Pickrel, Agricultural Extension Director.

His duties will include both educational and administrative assignments. His educational activities will be focused on in-service training of state and county staff members and extension teaching in economics and public administration.

Administrative assignments will include business and some personnel development programs.

For the past year, he has been administrative officer in the office of the Dean of Agriculture at North Carolina State University at Raleigh, N. C.

Originally from North Dakota, he received his B. S. degree in agricultural education at North Dakota State University, Fargo, in 1958, and his M. S. in agricultural economics at Montana State University, Bozeman, in 1963. He has done additional graduate work in public administration and completed a year and a half of study in agricultural economics at North Carolina State.

His experience includes a year of vocational agriculture teaching at McClusky, N. D.; two years as an agricultural representative for a bank at Beach, N. D.; and work as administrative officer in the Agricultural Experiment Station of Montana State University.

He was a fellow in the Agricultural Policy Institute at North Carolina State from fall, 1963, until becoming agricultural administrative officer there in January, 1964.

He is married and has two children.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
March 24, 1965

Immediate release

SPECIAL ARTS PROGRAM ON U ST. PAUL CAMPUS

A special program of gallery tours, demonstration lectures and a writing seminar will highlight the final week of the University of Minnesota's Town/Country Art show in the St. Paul Campus Student Center March 30-April 2.

The program is designed especially for amateur rural artists but is open to anyone interested, according to A. Russell Barton, coordinator. It is free of charge.

Louis Safer, University professor of art, will conduct the first gallery tour at 2 p.m. on Tuesday, March 30. Robert Forsyth, instructor in related art in the School of Home Economics, will lead the last gallery tour at 10 a.m. Friday, April 2. The art show will close at 5 p.m. April 2.

New this year is the Minnesota Writers' Seminar to be held at 2 p.m. Wednesday. William Marchand, Andrew King and Richard Horberg of the University Department of Rhetoric will discuss writing techniques.

Richard Abell, assistant professor of related art in the School of Home Economics, will give a demonstration lecture on "Materials and Techniques" at 10 a.m. Thursday (April 1). Scheduled for 2 p.m. is a talk by Keith Havens, Mound, well known professional artist and teacher in the Twin City area, on the artist's attitudes and philosophies.

Activities of the Minnesota Rural Artists' Association during the week include their annual luncheon at 12 noon Wednesday (March 31) in the North Star Ballroom and their annual business meeting Wednesday afternoon. State art organizations will be the topic of a roundtable discussion following the luncheon. Taking part will be Huldah Curl, state extension arts coordinator; Mrs. Phyllis Ames, Minneapolis artist; Ray Berg, president of the International Falls Artists' Association; Lawrence C. Peichel, Brown County agricultural agent; and Mrs. Marjorie Vogel, Red Wing Artists' Association.

Reservations for the Wednesday luncheon for rural artists should be made by March 26 by writing to Town/Country Art Show, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101.

Barton also announced three purchase award winners in the 1965 show; Doris Gardas, Red Wing; Nels J. Saltness, Solway; and Lorene Schumacher, Perham. Their oil paintings exhibited in this year's show were purchased by the University for its permanent art collection.

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65-81-jbn

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
March 24, 1965

Immediate release

UM TO OFFER AGRICULTURE COURSES IN 4 CITIES

The University of Minnesota's Institute of Agriculture will offer special courses in four Minnesota cities during the 1965 Spring Quarter, according to Institute Dean S. O. Berg.

Graduate-level courses for professional people in agriculture and related fields will be conducted in Litchfield, New Ulm, Fergus Falls and St. Paul. Instructors will be faculty members in the College of Agriculture, Forestry and Home Economics.

Students must register in advance by mail no later than Monday, March 29, Berg said. Tuition is \$30 per course. Each course carries three credits which can be applied toward a master's degree.

The schedule of courses is as follows:

Litchfield--Dairy Husbandry 124, "Dairy Cattle Nutrition," deals with application of principles of nutrition and economics of feeding dairy cattle. It will be taught Thursdays from 4:30 to 8:30 p.m., beginning April 1 and continuing through June 3. Instructor will be Donald Otterby, assistant professor of dairy husbandry.

New Ulm--Agricultural Economics 105, "Advanced Farm Management," will cover factors affecting a farmer's success and methods for evaluating a farm business. Conducted Thursdays from 4:30 to 8:30 p.m., April 1-June 3, by Edgar Shaudys, visiting professor from Ohio State University.

(more)

add 1 -- agriculture courses

Fergus Falls--Home Economics Education 160a, "Curriculum in Home Economics," covers home economics instruction on the secondary level. It will be taught by Fern M. Horn, home economics professor and director of Statewide Home Economics Curriculum. First meeting will be Friday, April 2, from 6:30-9:30 p.m. Dates and times of remaining class meetings will be adjusted at first session.

St. Paul--Rhetoric 169, "Communications Problems and Processes," covering contemporary communication theories and research and their relation to work and professional activities in which participants are involved. Conducted Saturdays from 9-12 a.m. on the St. Paul Campus April 3-June 5. Instructor will be Ralph Nichols, professor and head of the Rhetoric Department.

The courses are being offered by the Institute of Agriculture in cooperation with the University's General Extension Division.

Further information and application materials can be obtained from the Department of Off-Campus Classes, 154 Nicholson Hall, University of Minnesota, Minneapolis, Minnesota 55455.

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65-83-vak

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
March 29, 1965

To all counties
Immediate release

MILKER OPERATOR
KEY TO SUCCESS
IN DAIRYING

The man operating the milking machine is a key to a good dairy operation, according to William Mudge, extension dairyman at the University of Minnesota.

But for a milker operator to do a good job, he must have good equipment, properly installed and adequately maintained, Mudge says.

He explains that operating milking machines differs from operating any other farm machinery since the operator must constantly strive for both proper mechanical operation of the machine and the best physiological response of the cow.

In other words, he says, the dairyman operating the machines must try to get the most milk possible with a minimum amount of udder trouble which can result in the possible occurrence of mastitis.

He explains that mastitis is costing on the average of \$19.50 per cow each year through lower production, unsalable milk from treated cows, cost of treatment and extra time spent in milking problem cows.

Mudge lists three management practices which can help the machine operator get the most milk from his cows and still keep mastitis at a minimum.

1. Stimulate milk letdown by washing and massaging the udder and teats with a sanitizing solution using single service towels.
2. Attach machine within a minute after milk letdown. If it is attached before letdown, there is a tendency for the teatcup to crawl on the teat. If you wait too long to attach the teatcup, the result will be slower milking with less milk.
3. Remove the machine promptly after machine stripping to prevent over-milking.

add 1 - milker operator key to success in dairying

Mudge points out that adequate preparation of the cow and prompt removal of the machines requires that the dairyman limit the milker units to two in stanchion barns or three units with pipeline or parlor.

The milking machine requires steady vacuum to move the milk and proper pulsation to prevent blood congestion in the teats, he explains. And small or worn vacuum pumps or undersized partially plugged vacuum lines can cause fluctuating vacuum which results in udder irritation.

He adds that vacuum regulators, which are the "safety valves" on the milking system, must be kept clean to operate freely. Also, he says that two sets of teatcup inflations used on alternate weeks will retain their shape better and last longer than three sets used continuously.

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Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
March 29, 1965

To all counties

Immediate release

SPRAY COMBINATION
CAN REDUCE INJURY
TO CORN CROP

One way corn producers can reduce residue or potential carryover injury to their crops from weed sprays is to combine lower rates of atrazine with linuron (Lorox).

According to Gerald Miller, extension agronomist at the University of Minnesota, the atrazine-linuron combination has been cleared for use as a pre-emergence weed spray for corn.

He adds, however, that the combination should never be used as an early post-emergence spray since the linuron can kill the corn. Also, since corn is less tolerant to atrazine and linuron combined than it is to atrazine alone, the combination should not be used on sand or loamy soils.

Miller explains that atrazine used alone has proven to be more effective on quackgrass than the combination of atrazine with linuron. Control of annual weeds is about the same with either atrazine or the combination spray.

By applying the combination as a pre-emergence spray, you can plant small grains, soybeans and crops such as canning peas with less risk of damage from atrazine residue, since the rate of atrazine is thus reduced.

Miller adds that it is not advisable to plant susceptible crops such as sugar beets and vegetables in the year following treatment with the combination.

Atrazine and linuron are sold separately and have to be mixed. The agronomist points out that it is extremely important to select the proper rates for the particular soil type, and to mix the materials correctly in order to obtain adequate weed control and avoid crop injury.

-more-

add 1 - spray combination

He says the rates of the combination of atrazine and linuron for pre-emergence application on corn vary by soil type from one-half to one and one-half pounds per acre. These rates, he explains, are the amounts of active ingredient of each material broadcast per acre.

Atrazine and linuron should be mixed to give a one-to-one ratio of active ingredients. Atrazine is sold in five pound containers of 80 percent active ingredients, while linuron (Lorox) is sold in four pound containers of 50 percent active ingredient. Both are wettable powders.

Miller advises farmers who plan to use the atrazine-linuron combination to read the labels carefully and check with their county agricultural extension agents for additional information and instructions.

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Department of Information
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St. Paul, Minnesota 55101
March 29, 1965

To all counties
Immediate release

STALK ROT, LODGING
MAY BE REDUCED
IN CORN PRODUCTION

A few simple steps in crop management now can reduce corn losses from stalk rot and lodging next fall.

But measures must be taken before the crop is planted, according to Herbert Johnson, extension plant pathologist at the University of Minnesota. After planting, little can be done.

Johnson recommends practices which are in line with good crop management and which may have a definite effect on stalk rot and lodging. And they do not add to the cost for disease control above what should be invested for a good corn crop. These suggested steps are:

1. Select hybrids that have shown good standing ability in tests. Data on comparisons with other hybrids are presented in Miscellaneous Report 28 "Hybrid Corn Performance Trials," from the University's Agricultural Experiment Station. It is a good idea to try several good hybrids on your farm and see which ones perform best.

2. Be sure the potash level is not low in your soil. Even a medium level may lead to some lodging. High potash levels should be maintained both for top yield and to keep lodging at a minimum.

3. Plant enough seed for high yield, but keep in mind that excessively high populations do tend to increase lodging. For most hybrids, about 20,000 plants per acre is sufficient.

4. Control rootworms if they have been a problem in previous years. Johnson says these recommendations may not prevent all stalk rot and lodging, but should keep losses at a minimum.

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Department of Information
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St. Paul, Minnesota 55101
March 29, 1965

To all counties

Immediate release

SOME POSSIBLE IN BRIEFS.....

Unfavorable weather conditions and other non-living agents can cause tree injury and damage which is hard to diagnose because of the lack of any obvious symptoms. A recent fact sheet published by the University of Minnesota's Agricultural Extension Service, lists nearly a dozen and a half such injuries and diseases which are common in Minnesota. Plant Pathology Fact Sheet No. 12 offers information as to their cause and prevention. Copies can be obtained from county agents or the Agricultural Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

* * * *

Many woodland owners "can't see the forest for the trees." Marvin Smith, extension forester at the University of Minnesota, explains that these owners' emphasis on growing wood often obscures the fact that many lesser known forest products can provide a woodland owner with extra income, over and above what he will make from the primary tree harvest. For example, he can supply well-seasoned hardwood for home fireplaces and cookouts, or harvest the available foodstuffs that come from the forest, or market small pieces of wood that are cast aside during harvests. Possible markets for these wood pieces include the home workshop, wood carvers, rustic furniture manufacturers and toy makers.

* * * *

Winter hardiness of plants is the subject of a long-term research project at the University of Minnesota's Department of Horticultural Science. A recent finding reported by W. C. White and C. J. Weiser has led to a way to protect the popular arborvitae against winter injury when exposed to open sunlight all winter. The finding is that injury in exposed locations is due to rapid temperature changes, as when the sun goes behind an object. Thus, ways to avoid rapid temperature shifts are being experimented with by nurseries and University horticulturists.

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Department of Information
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St. Paul, Minnesota 55101
March 29, 1965

To all counties
ATT: HOME AGENTS
Immediate release

PLAN GARDEN
FOR FREEZING

A freezer filled with an array of tender, taste-tempting vegetables can become a reality if you include in your garden vegetables that freeze well.

But selecting varieties adapted to freezing is extremely important, according to Mrs. Shirley Munson, in charge of the food processing laboratory at the University of Minnesota.

Extensive testing of vegetables in the food processing laboratory has shown that some varieties retain their original good quality when frozen much better than others. Hence Mrs. Munson suggests that you choose varieties for planting on the basis of their performance in freezing.

Varieties of different vegetables recommended for freezing are listed in two different University publications. In Freezing Foods for Home Use, Extension Bulletin 244, varieties that freeze most successfully are suggested preceding the directions for freezing each vegetable. A list of dependable vegetables for Minnesota gardens is given in the newly revised 1965 Vegetable Varieties, Extension Folder 154. Varieties starred on that list are suitable for freezing. Both publications are available from the county extension office and are free of charge.

Two vegetables Mrs. Munson suggests to add interest to family meals are edible-podded peas (sometimes called sugar or Chinese peas) and Italian green beans. Good garden varieties of these vegetables will freeze well.

Among other vegetable varieties Mrs. Munson suggests for freezing, on the basis of tests in the University's food processing laboratory are these: asparagus - Washington, F₁ Hybrid; green beans - Tendergreen, Topcrop, Tendercrop; peas - Thomas Laxton and Perfection types; summer squash - Black Zucchini, Early Prolific Straightneck; spinach - Bloomsdale Long Standing, America; Swiss chard - Lucullus, Fordhook; sweet corn - Sugar King, Golden Beauty and Golden Bantam hybrids.

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St. Paul, Minnesota 55101
March 29, 1965

To all counties
4-H NEWS
Immediate release

4-H FILLERS

Boys and girls of 75 other countries around the world are benefiting from training received in 4-H clubs and similar groups.

* * * *

The 4-H tractor program has trained well over a million youths to drive safely, handle the big machines and keep them in working order the year around.

* * * *

Georgia Bergstrom, Oak Park, Minnesota IFYE to Thailand, was one of 30 young people who returned to this country March 23 after six months of living in the host country.

More than 3,500 youths in the United States and 67 cooperating nations have participated in the International Farm Youth Exchange (IFYE) program which is now in its 17th year. Some 25,000 families and groups have been hosts to IFYEs. By the end of 1964 Minnesota had sent 49 IFYEs to live and work overseas, and 128 exchangees had come to Minnesota to live with farm families.

The International Farm Youth Exchange is a cultural exchange program sponsored by the Cooperative Extension Service and the National 4-H Club Foundation to increase international understanding at the community level.

* * * *

Minnesota's IFYEs for 1965 are Kent Ringkob, 22, Jackson and Richard Krueger, 23, Litchfield. Ringkob will leave in early April to spend six months living and working on farms in Finland. Krueger, a former State 4-H Federation president, will go to India in September.

* * * *

The 4-H club program gives each member opportunities for practical experience in real life situations. Projects provide educational experiences which help the member "learn by doing." More and more of these projects are delving into the "why" of certain situations and happenings. Purpose of the program is the over-all development of the 4-H member.

* * * *

Any boy or girl between the ages of 9 and 19 can be a 4-H member. A member must have passed his 9th birthday but not his 19th by January 1 of the current club year.

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
March 30, 1965

Immediate release

STATE FFA CONVENTION SET FOR MAY 2-5

Nearly 2,500 boys from rural Minnesota will be on the St. Paul Campus of the University of Minnesota May 2-5 to take part in the 1965 Future Farmers of America (FFA) State Convention and Leadership Training Program.

The four-day meeting will kick off Sunday evening with a talent show and a pageant by state officers, and wind up Wednesday with a training session for newly-elected state FFA officers. Theme for this year's event is "Agriculture--Our American Heritage."

An annual highlight is the hand milking contest between the State Star Dairy Farmer and Minnesota's Princess Kay of the Milky Way. This unique event will take place in front of Coffey Hall on Tuesday at 8:45 a.m.

Monday's events will include judging contests, the third annual Creed Contest, an awards luncheon honoring State Farmers, District Star Farmers and National FFA Foundation Award winners, and special educational classes for delegates and advisers.

The educational classes will allow faculty members to explain teaching, research and professional opportunities at the University.

(more)

add 1 -- State FFA

The delegates will leave the campus Monday evening for the 29th annual convention banquet in Aldrich Arena. Governor Karl Rolvaag, Mayor Vavoulis of St. Paul and National FFA vice president Larry Prewitt of Thayer, Mo., will be the principle speakers.

Another banquet highlight will be the presentation of the FFA Chapter Sweethearts.

On Tuesday a dutch treat noon luncheon and meeting will be held for chapter members and advisers who are involved in the state-wide FFA duck raising and releasing program.

Other special features will include a student panel review of FFA's Anti-Smoking Education Program on Tuesday morning, a parliamentary procedure contest, a public speaking contest, a trip to Metropolitan Stadium for a Twins baseball game, and the State FFA band and chorus concert.

Newly named state convention band director is David Gleason of Howard Lake. L. Y. Peters of Sanborn will direct the state chorus.

This year the delegates will take part in "Operation Books to Philippines." The chapters will collect agriculture and science books before the convention and leave them at a special depository in Coffey Hall. The books will be shipped to Future Farmers Chapters in the Philippines.

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65-85-vak

Department of Information
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St. Paul 55101 -- Tel. 647-3205
March 30, 1965

Immediate release

U PUBLICATION OUT ON RECOMMENDED VEGETABLE VARIETIES

Don't get into a rut with your gardening this year, a University of Minnesota horticulturist has advised.

Add interest to your hobby by selecting a few vegetables you haven't grown before and by choosing a few new varieties of the vegetables the family likes best, Orrin C. Turnquist, extension horticulturist, suggests.

Turnquist is author of a newly revised University Agricultural Extension Service publication, Extension Folder 154, 1965 Vegetable Varieties which contains a list of varieties that have been found suitable for Minnesota and also discusses some of the newer varieties recommended for trial. The publication summarizes information concerning vegetable varieties tested in Minnesota in 1964. The tests were conducted by the Agricultural Extension Service in cooperation with home and commercial gardeners.

Many of the newer introductions are better producers, disease resistant and of higher quality than the old standbys, the University horticulturist says. He points out, however, that selection of varieties adapted to Minnesota conditions is an important step to a successful garden.

Among newer varieties of some vegetables Turnquist suggests for home gardens are: Cleopatra broccoli, a new early F_1 hybrid, that produces large, compact heads of uniform maturity; Spartan Early broccoli, especially desirable for northern gardens where the season is short; Emerald Cross cabbage, a small, compact, high quality hybrid that takes up less room than most cabbage; Pinocchio pepper, an ornamental plant producing bright red fruits excellent for salads; Black Magic hybrid eggplant, which ripens early and produces heavily all season.

Extension folder 154, 1965 Vegetable Varieties, is available free of charge at county extension offices or by writing Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101.

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65-86-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
March 30, 1965

Immediate release

MINNESOTA IFYE TO FINLAND

Kent Ringkob, 22, Jackson, will spend the next six months living and working with farm families in Finland as one of Minnesota's 1965 International Farm Youth Exchange (IFYE) delegates.

He will leave Wednesday (March 31) from the Twin Cities for Washington, D.C., where he will receive a week's orientation for his overseas assignment. On April 9 he will sail ^{from} New York on the S. S. Statendam and will arrive in Helsinki April 20, according to William Milbrath, extension specialist, young adult program, University of Minnesota.

Since September Ringkob has been a graduate student in animal husbandry at the University of Minnesota. He holds a B.S. degree from Iowa State University.

The son of Mr. and Mrs. Thomas Ringkob, he was an active 4-H member in Jackson County for 12 years. He was president of the county 4-H organization, president of his local club and was winner of a trip to the National 4-H Club Congress in Chicago for his livestock achievements.

Ringkob will be one of 45 young men and women throughout the United States who will go overseas in April as IFYEs to get a better understanding of the problems of rural families in 15 different countries and to introduce these people to American customs and ideals. Other groups of International Farm Youth exchange delegates will leave from the United States in June and September. Rural young people from foreign countries will come to this country this summer in the two-way exchange.

Another Minnesota youth, Richard Krueger, 23, Litchfield, will go to India in September as an IFYE delegate. Georgia Bergstrom, 22, Oak Park, 2 1964 Minnesota IFYE, has just returned from her assignment in Thailand.

The International Farm Youth Exchange program is a cultural exchange sponsored by the Cooperative Extension Service and the National 4-H Club Foundation for the 17th year. Its basic premise is that understanding other people and their countries at the community level can contribute to international good will and world peace. Major support for the program comes from business and industry. ### 65-84-jbn

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
April 1, 1965

Immediate release

INSTITUTE OF AGRICULTURE CALENDAR

APRIL

- 2-4 Young Adult Citizens Conference, Southern School of Agriculture, Waseca.
- 6-8 Landscape Design School, St. Paul Campus.
- 8 Commercial Fruit Growers Short Course, St. Paul Campus.
- 24 Alumni Reunion, College of Agriculture, Forestry and Home Economics, St. Paul Campus Student Center.
- 26-29 Minnesota State Fire School, St. Paul Campus.
- 30-May 1-2 4-H Camp Counselor Workshop, Camp Ihduhapi, Loretto.

MAY

- 2-5 Minnesota FFA State Convention and Leadership Training Program, St. Paul Campus.
- 7-8 Beekeepers Short Course, St. Paul Campus.
Minnesota Royal, All-Campus Celebration, St. Paul Campus.
- 11 St. Paul Campus Recognition Assembly, North Star Ballroom, Student Center.
- 12 Cap and Gown Day Activities, St. Paul Campus.
- 19 St. Paul Campus Recognition Dinner, North Star Ballroom, Student Center.

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
April 1, 1965

Immediate release

AGRICULTURE COLLEGE PLANS APRIL 24 REUNION

Alumni of the University of Minnesota's College of Agriculture, Forestry and Home Economics will return to the St. Paul Campus Saturday, April 24, for their annual reunion.

Highlights of their visit to the campus will be an afternoon coffee hour and an evening banquet, both in the Student Center.

"All alumni and former students along with their husbands or wives are invited to attend the reunion," according to Ralph E. Miller, associate professor in the College of Agriculture, Forestry and Home Economics.

Classes to be honored at the gathering will be the nine five-year classes from 1915 to 1955. All of these classes will gather individually during the 4:15 p.m. coffee hour.

Special recognition will be given at the alumni banquet to all past recipients of the "Freeman Medal Leadership Award," which is given each year to an outstanding student for his leadership contributions to the campus.

Two Outstanding Achievement Awards will be presented at the banquet by University President O. Meredith Wilson. The awards will be in agriculture and forestry. A special Alumni Citation will also be awarded in Home Economics.

Miller reminds alumni who plan to attend to make their reservations for the banquet as soon as possible.

Reservations are \$3.75 per plate and checks should be mailed to the Minnesota Alumni Association, 205 Coffman Memorial Union, University of Minnesota, Minneapolis, Minnesota, 55455.

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6 5-90-vak

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
April 1, 1965

* DO NOT RELEASE BEFORE *
* 6 P.M., Sat., April 3 *

COMMUNITY SERVICE AWARD GOES TO WINONA COUNTY YOUNG ADULT

WASECA--Three Young Adult Citizens (YAC) groups in Minnesota have won awards for outstanding service to their local communities.

First prize of \$ 50 went to the Winona County Adult Citizens Club; Kandiyohi County Young Adult Citizens received second place and \$25; and Benton County YAC Club won third place and \$10.

Award winners were announced this evening (Sat., April 3) at the annual banquet, one of the events of the state YAC conference held there this week (April 2-4).

The contest is sponsored by Midland Cooperatives, Inc., in cooperation with the University of Minnesota Agricultural Extension Service. The awards are given by Midland Cooperatives, Inc., to stimulate community service activity on the part of each YAC group in the state.

Cooperation and organization resulted in a successful Winona County Red Cross drive sponsored by the winning Winona County YAC group. Their work consisted of securing chairmen and solicitors for each township, scheduling a kick-off meeting and explaining and distributing materials to people in the county. Other activities of the group included cleaning the 4-H building before the county fair and making favors for four rest homes. One of their special projects has been teaching 4-H members how to fill out their records and standard report forms.

Kandiyohi County YAC members placed markers at historical sites, donated 240 hours of time to paint the dairy building at the county fair grounds, contributed to an educational fund for a student at an agricultural school in Africa, had a Christmas "bake" for nursing homes and the Willmar State Hospital and helped with patient therapy at the State Hospital.

Cleaning a roadside park area, setting up a community chest fund for local needy families and raising money for this and other projects by sponsoring square dances were among activities of the Benton County YAC. The group also carried on an extensive membership campaign and set up an enrollment committee to start another YAC organization in a nearby county. ### 65-87-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 1, 1965

To all counties

Immediate release

C O R R E C T I O N

In the March 29 release titled "Spray Combination Can Reduce Injury to
Corn Crop," the headline should read as follows:

SPRAY COMBINATION
CAN REDUCE
SOIL RESIDUES

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 1, 1965

Immediate Release

EXTENT OF DELAY IN SOIL WARMUP ANALYZED BY SOILS MEN

Farmers and gardeners expecting a late start in spring planting this year, because of slow soil warmup, today were given an idea of how serious the problem is.

Soil climatologist Don Baker at the University of Minnesota reported that on March 31, the average temperature of the top 8 inches of soil in University test plots was 25 degrees Fahrenheit.

For the past four years, the average date when soil was still that cold was Feb. 19--meaning the soil this year is 40 days behind in warming up. Ordinarily, the top 8 inches averages about 34 degrees by the time April rolls around.

Furthermore, depth of frost in these soil plots on March 31 of this year was 55 inches. That compares with a frost depth of only 13 inches for the same day from 1961-64.

These figures don't mean it will take 40 days longer to reach soil temperatures suitable for planting. But they do point to a much later spring and indicate how extreme the effects of the 1964-65 winter have been on the soil.

Those same field plots, representative of many at least in East Central Minnesota, were covered with a snow and ice accumulation equal to about 6 inches of water on March 31.

Melting this snow and ice is a tremendous task for nature -- requiring heat, from radiant energy and warm winds, while for each acre would be equal to the

(more)

add 1 -- soil warmup

heat given off by about 60-70 tons of coal.

Until that moisture above the surface is gone, the temperature of the soil underneath will not rise above 32 degrees.

Soil temperature, of course, is a key to successful crop production. While it varies for different crops, the soil must be well above freezing for seed germination.

Doesn't snow insulate soil? The answer is yes--but insulation now has a reverse effect from what farmers might prefer. The snow and ice are insulating the soil from radiant energy of the sun, and therefore keeping it cold.

Even if we had July temperatures tomorrow, the soil wouldn't rise above 32 degrees, until the surface moisture is gone. Snow can reflect as much as 85 percent of the radiant energy of the sun, and can radiate the long-wave energy (terrestrial energy) at night. Both effects add to keeping soil cold as long as there is snow cover.

The problem for farmers doesn't stop here. With all this snow, the soils will be extremely wet after the surface snow and ice melts, and wet soils require more heat to warm up. For example, a dry clay soil with little water needs about 4.9 calories of heat to raise the temperature of a cubic inch of that soil about 2 degrees Fahrenheit. The same soil wet needs 8.2 calories or 66 percent more heat.

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65-pjt

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 5, 1965

To all counties
Immediate release

TOTAL MANAGEMENT
IMPORTANT IN
ALFALFA PRODUCTION

Total management in alfalfa production has resulted in yields of five and six tons per acre on some Minnesota farms, according to James R. Justin, extension agronomist at the University of Minnesota.

By total management he means satisfying lime and fertility requirements before planting, maintaining fertility during the life of the stand, planting the best seed available of an adapted variety, preparing the seedbed adequately, controlling weeds, cutting early and handling and storing the crop properly.

Failure in any one or a number of these management practices, he says, can mean total crop failure.

Buying uncertified seed or seed of low quality is probably the first step toward alfalfa crop failure, he explains. Farmers are advised to look closely at the variety and quality of seed they choose.

In order to insure that the alfalfa stand will survive winter and escape bacterial wilt, Justin urges farmers to select either Vernal or Ranger. These varieties, he explains, have consistently proven to have the best winter hardiness and wilt resistance in trials conducted over the past years at the University.

High purity and germination are essential for good, productive stands, he continues. And according to state law, seed tags must show germination and mechanical purity of the seed in the bag.

Farmers using low priced seed with either low germination or low purity may find that they are paying more per pound of good seed than if they had selected a higher-priced seed.

Certification means varietal purity, Justin explains, and certified seed is the farmer's only assurance of getting the variety he pays for.

For example, he points out that some uncertified Vernal and Ranger lack the winter hardiness and wilt resistance of the certified seeds.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 5, 1965

To all counties

Immediate release

IN BRIEF.....

Expecting a late start in spring planting? Soil temperature data suggest how serious the problem is. Soil climatologist Don Baker at the University of Minnesota reported that on March 31, the average temperature of the top 8 inches of soil in University test plots was 25 degrees. For the past four years, the average date when soil was still that cold was February 19--meaning the soil this year in that location is 40 days behind in warming up. Ordinarily, the top 8 inches averages about 34 degrees by the time April rolls around. Also: depth of frost on these plots on March 31 was 55 inches, compared with only 13 inches for that day from 1961-64. While these figures don't mean it will take 40 days longer to reach soil temperatures suitable for planting, they do point to a much later spring and indicate how extreme the effects of the 1964-65 winter were on the soil.

* * * *

First Aid for Flooded Homes and Farms, a publication of the U. S. Department of Agriculture, gives a variety of information on how to deal with the results of flood damage. Copies of this publication are available from county extension offices and from the Agricultural Bulletin Room, University of Minnesota, St. Paul 55101.

* * * *

Raising of seedling plants from seed indoors for later planting outside is big business and often a fascinating hobby. Loss of these plants by disease sometimes occurs, but may be prevented, according to Herbert Johnson, extension plant pathologist at the University of Minnesota. Or in many cases where trouble has started, control measures can be applied to reduce the potential damage. Form PL-11, "Damping-Off of Seedlings" gives information on this problem, together with control measures. Copies are available from county extension offices and the Agricultural Bulletin Room, University of Minnesota, St. Paul 55101.

* * * *

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 5, 1965

To all counties
ATT: HOME AGENTS
Immediate release

USE SPECIAL
RECIPES FOR
INSTANT FLOUR

Homemakers who have purchased the new instant all-purpose flour are asking whether it differs in use from the ordinary all-purpose flour because of its granular texture.

For best results, extension nutritionists at the University of Minnesota point out that it's wise to use recipes especially developed for the instant all-purpose flour. Such recipes are given on the package or in a little folder that's found in the bag.

The consistency of cookie and pie crust mixtures made with the new flour is drier and more crumbly than usual, the nutritionists caution. Instead of adding water, pat or mold the dough together with the hands to give it the right consistency for rolling. For rolled cookies, add the flour gradually until the dough reaches a good consistency.

The new instant all-purpose flour has a number of advantages. It pours evenly like sugar and without dust; it needs no sifting; it can be measured more accurately, since it does not pack down; and it mixes easily and quickly with other ingredients. Because it disperses instantly in cold liquid, many homemakers are finding the new flour especially satisfactory for making gravies and whitesauces without lumping. In making gravy with the new flour, combine cold liquid and flour in the pan and then cook till thickened. For sauces, omit melting the butter, combine all ingredients and proceed as directed in the recipe.

Since the instant all-purpose flour may tend to absorb moisture, re-roll the bag after each use or keep it in a tightly covered canister in a cool, dry place.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 5, 1965

To all counties
4-H NEWS
Immediate release

4-H'ERS PREPARE
THEMSELVES FOR
FUTURE HOMEMAKING

Today, more than 10,000 girls and young women in Minnesota are preparing for their future task as responsible homemakers.

They are 4-H'ers enrolled in the home improvement-family living project. Helping to make their homes a more pleasant place to live is the purpose of the 4-H home improvement-family living project. The project members begin with such simple things as helping Mom "pick up," taking care of younger brothers and sisters, to the more advanced phases of studying, selecting and applying color schemes or studying and arranging furniture.

The home improvement-family living project is divided into three phases: beginner, junior and advanced. Each phase is divided into four units: household routines and home planning, money management, baby sitting and modern laundry.

Beginners do tasks that are simple and short. Washing dishes, setting the table and cleaning the sink are a few of the suggested items. 4-H'ers also learn to sew articles for the home such as dishtowels, place mats and other table linens. Or they make small items which are functional such as wastebaskets or decorative-like pictures, wall hangings or plaques.

Experience is gained in the junior phase when the members do a greater variety of jobs. Interesting areas are the selection of floor coverings, learning about color, studying storage areas and more advanced work in the laundry. 4-H'ers may conduct experiments showing the effects of bleach on various fabrics, for example.

Talks, demonstrations and helping new members in the project are suggested requirements for the advanced members. In the home the advanced members learn to select or make curtains, draperies and other accessories. Some members redecorate rooms in the home such as their bedroom, or they refinish furniture.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 5, 1965

To all counties
Immediate release

CHEMICAL FUNGICIDES
ARE NOT ALL TOXIC

If names and label directions of agricultural chemicals sometimes seem hard to keep straight, remember that the hardest work has been done before the product ever reaches the dealer's shelf.

Chemicals vary widely in composition, toxicity, and uses to which they can be put. The packaged product and its label which you buy represent months or years of painstaking laboratory research and testing.

Read those labels and follow them. You'll get the best results--and without worry.

Extension plant pathologist James D. Froyd at the University of Minnesota explains why label directions and restrictions vary so much from one chemical to another, and from one use to another for a given chemical.

His concern is with one group of chemicals--fungicides used to control plant diseases.

Not all fungicides are toxic to human beings and other animals. Sulfur, lime and lime-sulfur may be applied to certain crops either before or after harvest.

Similarly, fixed or neutral coppers and that old stand-by Bordeaux mixture, are exempt from tolerance restrictions, when applied before harvest.

Certain other fungicides leave no residues if applied a specified number of days before harvest. These include chloranil (Spargon), and dinocap (karathane).

A fungicide tolerance on a crop reflects the residue that will not be exceeded with good agricultural practice. It is always low enough to involve no hazard to the consumer.

-more-

add 1 - chemical fungicides

Some tolerances are set at zero, if a fungicide is toxic to animals or if the manufacturer hasn't proven lack of toxicity. All mercury-containing fungicides have zero tolerances. Restrictions limit their use for seed treatments or foliage applications on certain crops before fruit set. These restrictions eliminate possible mercury contamination of harvested produce.

Tolerances are changed by the FDA only when scientific evidence shows they are necessary. Froyd urges users to keep informed of these changes, not only in tolerances but in time limitations and crops involved. Chemical dealers, county agents, and others have recent literature on fungicides. Always consult recent chemical labels, since these must by law contain correct information.

Fungicides for ornamental shrubs, trees, flowers, and lawns currently have fewer restrictions than those for food or feed crops. However, strict adherence to label directions for use is recommended to avoid chemical injury to foliage or loss of protection from inadequate coverage.

Careful fungicide use involves not only proper application procedures, but proper storage and disposal facilities too.

Chemical disposal should be no problem. You can burn empty paper containers, but avoid inhaling the smoke. Empty excess fungicides into a pit at least 2 feet deep. Keep such pits away from wells, streams, drainage systems, farm animals, crops, and play areas of children. Open both ends of metal containers, break glass containers, and bury these items too. Do not reuse empty fungicide containers for any purpose.

Unused fungicides should be stored away from children and pets. Behind a locked door is best. Most deaths caused by agricultural chemicals occur in children under 10 years of age.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 5, 1965

To all counties
(except Southwest
district)

Immediate release

ASPEN: WEED TREE
OR CINDERELLA?

Lumbermen in the 19th century called it a weed, foresters thought it might make a nurse crop for better trees, and sportsmen allowed that it might do wildlife some good.

But only in recent times has the much-maligned quaking aspen, or popple if you wish, achieved status in Minnesota as a real timber species.

It isn't too far-fetched to call aspen the Cinderella of the woodlands, say extension foresters Bill Miles and Marvin Smith at the University of Minnesota.

Fact is, since 1946, aspen has led all Minnesota species in pulpwood production and is therefore the most-used species in the state. About half of all roundwood produced for pulp in 1963 was aspen.

Furthermore, aspen is being harvested for match stock, veneer, particle board, pallet stock, lumber and specialty items.

Not that we suddenly have a use for every aspen tree in the state. Far from it. Aspen and birch forests cover over 6 million acres, or about 37 percent of the commercial forest land in the state. This aspen, mostly in northern parts of the state, is reaching commercial size and is expanding the timber supply.

What is the future for aspen? Miles and Smith answer with some cautious optimism, and point to some of the problems. Minnesota's production of pulp and paper has been keeping pace with the national increase in consumption, running about 3 percent per year. However, this production won't handle the growth on the 6 million acres of aspen.

Thus, barring revolutionary changes in utilization, many acres of over-mature aspen will create future wood surplus problems.

-more-

add 1 - aspen

In stands of pure aspen, the species will reproduce itself and again predominate. But where it is mixed with other hardwoods or conifers, other species with longer life spans will take over.

Miles and Smith say forest management goals should be to retain areas of high quality and volume aspen production, but to convert off-site aspen stands to production of other species. Such conversion is expensive and requires much research.

Another possibility is development of new uses for this excess wood. And this in turn depends on research on the composition, breakdown, and technological processing of aspen.

The term "aspen" includes the quaking aspen and the big-tooth aspen. Before the lumbering days in Minnesota, aspen grew in small patches where fires had burned and was scattered here and there in the forest.

As other species were cut, the aspen was often the only tree to persist because of its "suckers" from stumps and roots. Gradually, vast acres of land once covered with pines were taken over by aspen.

With its small size and rather short life (about 60 years) lumbermen thought of aspen as a weed tree. It is easily injured, susceptible to decay, and the wood is not strong.

None of the three pulp mills in Minnesota in 1905 were using aspen, although the idea had been mentioned. Use of aspen for pulp really began in the 1930's, and by 1963, nearly 450,000 cords of aspen were used in the dozen pulp and paper mills of the state.

This is phenomenal growth, and the increase in aspen probably won't be so sharp in the future; expansion of the pulp industry in the South and West Coast will hold it back, Miles and Smith say. The best hope is that the Minnesota industry keep pace with the national average.

-more-

add 2 - aspen

In Minnesota's veneer industry, about 1 million board feet of production in 1963, or a tenth of the total, was in aspen. This is a relatively small industry and growth will probably be slow in the near future.

To sum up then, the outlook for aspen is about as bright as it ever has been since the species began taking over vast acreages of forest land. But to overwork the old cliché, it isn't quite out of the woods yet.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
April 6, 1965

Immediate release

53 FOREIGN STUDENTS TO LIVE ON MINNESOTA FARMS

Fifty-three foreign students from 10 countries will spend the next nine months on Minnesota farms in 29 counties throughout the state under a special work-study program of the University of Minnesota.

Following the nine months of living and working with a host farm family, the students will study for three months, or one academic quarter, at the University. After that they will spend from six to nine months traveling and working in other parts of the United States.

The group includes 21 students from West Germany, five each from Sweden, Norway and the Netherlands, six from Finland, four from Denmark, three from England, two from South Africa and one each from Ceylon and Tanzania.

Counties involved in this year's program are Blue Earth, Carver, Dakota, Faribault, Freeborn, Goodhue, Hennepin, Jackson, Lake of the Woods, Le Sueur, Lyon, McLeod, Meeker, Murray, Nicollet, Olmsted, West Otter Tail, West Polk, Pope, Redwood, Renville, Rice, Stearns, Wabasha, Waseca, Washington, Watonwan, Wilkin and Winona.

This two-way program began in 1949 with Sweden. Since then 370 students have come to Minnesota and 28 Institute of Agriculture students have gone overseas, according to LaVern A. Freeh, head of the Department of Agricultural Short Courses, the University department administratively responsible for the program.

(more)

add 1 -- foreign students

The program is coordinated in each county by the county agent and the nearest vocational agriculture instructor who will work with the host family to help plan a work-study program for the student while he is on the host farm.

Al W. Keating, coordinator of foreign training programs for the Department of Agricultural Short Courses, is the program coordinator. He works closely with an advisory committee made up of representatives of the organizations involved in the program, as well as with a series of nationality committees.

Professor Ralph E. Miller of the College of Agriculture, Forestry and Home Economics serves as the advisor for the students while they attend the University.

"This program offers a great potential for creating a clearer understanding between peoples of different nations," Freeh said. Plans are now being made to expand the program to make it possible for a larger number of Institute of Agriculture students to go overseas each year, he added.

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65-91-vak

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
April 4, 1965

Immediate release

PRUNE NOW--IF YOU CAN

An extension horticulturist at the University of Minnesota has suggested that this is a good time to prune your fruit and shade trees--if, he adds, you don't get lost in snowdrifts in the attempt.

At any rate, University horticulturist O. C. Turnquist recommends pruning fruit/^{trees} in early April--as soon as it's possible, because trees are still dormant and cuts, therefore, will not bleed.

Some pruning should be done every year--on old as well as young fruit trees. Pruning makes the tree productive, repairs damage and helps to develop a strong framework.

The objective in pruning a mature apple tree is to encourage new wood and get rid of thin, crooked old wood, which bears only small, poorly colored fruit. Old wood is characterized by its slow growth--as little as 2 inches a year--in contrast to young wood, which makes very rapid growth--up to 40 inches annually.

(more)

add 1 -- prune now

Severe pruning of old wood is the only way to make mature apple trees profitable, according to the University horticulturist. If such trees are very tall, he recommends cutting the top back to 10 or 12 feet. Cut to a side branch so no stub is left and so the tree maintains a natural shape. Cut out all the weak, thin, drooping wood as well as branches that are broken or that cross or rub each other. The strong new growth remaining will produce fruit similar to that of young trees. If branches are too crowded, it may be necessary to cut out some of them to let in light to the lower part of the tree. Old neglected trees may require more than a year for such renovation.

Turnquist gives these suggestions for proper pruning of all fruit trees:

- . Use only sharp tools.
- . Prune a young tree right after it is planted.
- . Never leave stubs when you prune.
- . Undercut all big branches before pruning,
- . Prune so the lowest branch is 2 or 3 feet from the ground and all branches are well separated up the trunk.
- . In deciding what branches to keep, choose those with wide crotches.
- . Paint wounds 2 inches or larger with orange shellac or tree-preserving compound.

Further information on pruning is given in Extension Folder 161, Pruning Fruit Trees, available from county extension offices or from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101. The publication contains sketches showing recommended pruning procedures for young fruit trees.

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65-88-jbn

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
April 8, 1965

Immediate release

UM TO CONDUCT STATE FIRE SCHOOL APRIL 26-29

Over 500 firemen from throughout the state are expected to attend the 14th annual Minnesota State Fire School April 26-29 on the St. Paul Campus of the University of Minnesota.

The four-day program, coordinated by the Institute of Agriculture's Department of Agricultural Short Courses, will cover instruction in fire fighting and fire rescue techniques as well as the latest developments in fire prevention.

Registration will begin at 7:30 a.m. Monday (April 26) in Coffey Hall Auditorium. The Monday morning session will feature talks by University officials as well as authorities in fire control and prevention. Minnesota Governor Karl F. Rolvaag will address the session at 10:35 a.m.

Tom McCormick, offensive backfield coach of the Minnesota Vikings, will be the guest speaker at the annual banquet set for 5:30 p.m. Monday in the Arizona Room of the Prom Center, 1190 University Avenue, St. Paul.

Tuesday has been designated as "City Officials Day" with invitations extended to all municipal officials throughout the state.

Wednesday is "Demonstrations and Exhibits Day" with sessions to be held at the State Fair Grounds. There will be demonstrations of new fire fighting techniques and new equipment as well as displays of fire fighting apparatus in the Hippodrome Building and Livestock Judging Pavilion.

A team from the emergency room of St. Mary's Hospital in Rochester will demonstrate automobile accident simulation techniques as a highlight of Wednesday's program.

The Thursday session will feature talks by experts such as Rexford Wilson, field representative for National Fire Protection Association of Boston, Mass., and Ambrose B. Kelly of the Associated Factory Mutual Fire Insurance Companies, Providence, R. I.

The school is offered each year through the Department of Agricultural Short Courses in cooperation with state fire fighting and fire insurance underwriting groups.

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65-92-vak

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
April 8, 1965

Immediate release

U ARBORETUM INTRODUCES NEW PLANTS FOR MINN. GARDENS

The University of Minnesota Landscape Arboretum is playing an important role in introducing new plants to Minnesota gardens.

If you were to check the list of plants offered for sale at Minnesota nurseries this spring, you would be aware of many new plant materials unheard of in this area just a few years ago. Some of these new plants were grown in Minnesota for the first time in the arboretum, according to Leon C. Snyder, superintendent of the arboretum and head of the University's Department of Horticultural Science. In some cases, nurserymen have introduced the new varieties and furnished plants for arboretum collections so the public would be able to see and study them.

At the end of the 1964 growing season, the arboretum had nearly 10,000 plants representing more than 2,000 species and cultivars in the various plant collections. In addition, more than 400 native species are now growing in the arboretum. This past year approximately 300 species and cultivars were added to the arboretum collections, and 77 were removed because they either lacked sufficient hardiness or had little ornamental value. An important objective of the arboretum is to carry on research in testing and developing hardy ornamentals for home landscaping.

Among the ornamentals of special interest to visitors this year will be the 90 varieties of flowering crabapple, the azalea and rhododendron collection which now has nearly 1400 plants which should bloom in May and June, more than 200 varieties of old-fashioned roses and 80 varieties of daylilies.

In addition to the plants added this past year, a number of projects were started, some were continued and others completed at the arboretum. One of the newer projects is the establishment of a bird area where trees, shrubs and vines could be planted to furnish food and shelter for song birds. On the 15 acres selected for this purpose, several rustic bridges were built and fruiting plants were started. The flowering crabapple collection was extended to furnish a background.

An ornamental grass area has been planted near the bird area. Seeds of the various ornamental grasses are expected to be a source of food for the birds.

(more)

add 1 -- arboretum

A major project just completed has been the addition of trellises designed by Edwin Lundie, a St. Paul architect, for the vine collection and contributed by the Minnetonka Garden Club. Clematis furnished by Lehman Gardens, Faribault, for these trellises will be planted this spring.

Work has continued on the bog trail, a project supported by the Federated Garden Clubs of Minnesota. Corduroy paths consisting of 4-foot lengths of elm logs were built from the main trail to give access to many new plants. Display labels have been made for about 150 plants along the trail. Popular for nature hikes, the bog trail can be reached after a short walk around the lake. The bog garden, one of the natural beauty spots in the arboretum, consists of a small lake surrounded by wetlands with rich native bog vegetation. Growing in the bog garden are such native and introduced plants as cattails, marsh marigolds, pitcher plants, orchids, wild calla lilies and highbush cranberry.

Early spring visitors to the arboretum should see evidence of many wildflowers in the woodland garden--trilliums, lady slippers, hepaticas, Dutchman's breeches, bloodroot. The trail through the woodland garden has now been resurfaced with wood chips and a wooden bench has been built. A printed arboretum guide enables visitors to tour the area on foot and to identify the wild flowers that provide color through most of the season.

Planted in a natural setting, the arboretum gives Minnesotans an opportunity to study plant materials in natural landscape groupings and to see the variety of plants available for landscaping. Woodland trails make it possible to walk through the arboretum to view the plantings. Size of the arboretum is now 322 acres, with the recent donation of 20 acres of rolling, tree-covered land by Mrs. John S. Pillsbury, Sr., Wayzata.

Some 25,000 people visited the arboretum in 1964, including 161 organized groups

An account of the progress of the arboretum during the past year is contained in the University Agricultural Experiment Station Miscellaneous Report 61, University of Minnesota Landscape Arboretum. Single copies of the report are available from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101.

The arboretum is located 2 miles east of Victoria or 4 miles west of Chanhassen on State Highway 5.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
April 8, 1965

Immediate release

LOGGING OPERATIONS HELPFUL TO DEER SURVIVAL

While some of the state's deer population is suffering heavily from a severe winter, the beneficial side effects of logging operations is one bright spot for their survival.

In spite of starvation in some areas, deer in many locations are actually enjoying a rather high standard of living by feeding on the tops of trees cut by the forest industries, according to Frank Irving, forester at the University of Minnesota.

Loggers have cut more than a million cords of timber during the past year in an area covering about 100,000 acres of northern and northeastern Minnesota.

Furthermore, many deer have been eating the sprout growth stimulated by cutting during the past five to 10 years.

Irving points out that not all logging operations are important to deer, but a high proportion of those in the primary deer range certainly are. Assuming an average annual cut of about 100,000 acres, increased browse production this winter was available from past cutting on between half a million and a million acres.

If only a fourth of this area is available during the deep snow period, it still represents a tremendous deer feeding operation that could be duplicated only at a cost of several hundred thousand dollars, Irving states.

He adds that the extent of these forest operations indicates their significance to the Minnesota deer herd and to citizens concerned with this resource.

In any severe winter, Irving says, some losses can be expected in the deer herd. However, because of the deer harvest program in Minnesota and the activities of loggers, these losses will be lower than they would be otherwise.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 12, 1965

To all Bureaus

ATT: HOME AGENTS

1st in a series of
three articles on
furniture selection.

FOLLOW ABC'S
IN SELECTING
YOUR FURNITURE

Immediate release

When you buy new furniture, a good rule to follow is to select pieces fitting your way of life so you individualize your home. Many styles in furniture are available for the large or small budget.

Follow the ABC's of furniture selection - analyze, budget and consider, suggests Rachel Munson, assistant extension specialist in home furnishings at the University of Minnesota.

Before you buy, analyze the furniture you own. Which pieces of furniture will you need to purchase now? What can be put off till later? Coordinate the interior of your home by selecting large furniture pieces that have the same or similar predominating lines and form as the furniture already purchased.

Budget the amount of money you can spend on furniture. Size of your family, the stage of the family cycle and amount of savings will influence the amount of money you will want to spend for furnishings. Investment in furniture relates to family needs and living comfort. Always give preference to quality over quantity in buying furniture.

Draw a floor plan working out a three- to five-year buying schedule providing for the purchase of some furnishings each year. A plan should be flexible enough to allow for change if the need arises. Changing a plan should be done deliberately, not on the spur of the moment.

Consider the opinion of experts and get their advice, showing them your floor plan. Ask your family to select certain styles that appeal to them and their activities. Read magazines and study furniture for quality, design and price. While browsing in good furniture stores ask the dealer about the quality and construction of parts you cannot see.

Your Furniture Selection Series I, Before You Buy, Extension Bulletin 317, will give you further information. It is available at your county extension office.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 12, 1965

To all counties
4-H NEWS
Immediate release

4-H'ERS CHECK FOR
HAZARDS DURING
SPRING CLEANING

Boys and girls can help eliminate hazards during spring cleanup around the home.

Thousands of home fires occur each year because of rubbish and litter accumulating in the attic and basement, says Earl Bergerud, assistant state 4-H club leader at the University of Minnesota. Home hazards can also be detected and removed while you are cleaning the home.

An objective of the 4-H safety project is to recognize safety hazards and correct them. Members should check their homes now for fire hazards during housecleaning time, suggests Bergerud.

Home safety is everyone's responsibility. Check for these hazards in your home:

- Old papers or other flammable materials such as rags in the attic, closets, cellars and garage.
- Little children playing near open flames.
- Articles arranged in the basement near heating units.
- Electrical cords and plugs that need repair.
- Top and bottom of basement steps hard to see. Paint these white to eliminate this hazard.
- Porch steps that need repair.
- Old medicine bottles that need to be thrown out or labeled and stored out of reach of children.

-more-

add 1 - 4-H spring cleaning

If you are a beginner in the safety project, study such areas in your home as the fire incinerator: Is it covered with a wire netting to deter the flying debris and flame? Even doing such seemingly little things as carrying out the rubbish or cleaning the porch steps will help to avoid home accidents and fire.

Junior members in the safety project should learn to repair electrical cords and plugs. When working around the home workshop, the 4-H member should guard against loose clothing catching in the electrical equipment. Home fire drills suggest another area for safety.

Members who are advanced can teach their younger brothers, sisters and 4-H members about safety hazards and how to avoid them. The advanced member should work towards a safety-conscious community, says Bergerud.

-smk-

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 12, 1965

To all counties
Immediate release

WATCH FOR SIGNS
OF WINTERKILL
IN FORAGE CROPS

Once the snow, ice and standing water finally disappear, farmers should carefully examine their alfalfa and other forage crops to see how well they survived the winter.

According to James R. Justin, extension agronomist at the University of Minnesota, the sprouting of strong, healthy buds and new shoots are good indications that the stand suffered little or no winterkill.

He advises farmers not to be too anxious to plow up stands where regrowth does not appear immediately. These crops may not be dead, he explains, just slow in getting started.

If a farmer has a stand which does not show any signs of immediate regrowth, he should keep a close check on the stand and give careful consideration to what to do if winterkill did take its toll.

In some cases, he says, if the entire crop is not killed, there may be considerable thinning of the stand. If this happens, farmers will have to decide whether or not stand reduction is extensive enough to seriously reduce production.

It might be better, he says, to keep a slightly thinned stand and be sure of some yield, than to plow the stand under, reseed it and possibly get no yield this year.

Justin says the important point is that farmers should check their fields early, keep a close watch on slow starting stands, and be absolutely certain that the stand is lost before plowing it under.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 12, 1965

To all counties
Immediate release

IN BRIEF.....

April is a good time to prune most shade trees and summer-flowering shrubs, explains Gus Hard, extension horticulturist at the University of Minnesota. He adds, however, that early spring-flowering trees and shrubs such as lilac, flowering crabapple and flowering almond should be pruned after they have flowered.

* * * *

Damaging floods over parts of the state this spring serve as a grim reminder that family and farm emergencies can and do occur without warning. In addition to such natural disasters as floods, tornadoes, windstorms and blizzards, nuclear attack has also been added to the list of disaster possibilities. In an effort to help rural people make emergency preparation plans, the University of Minnesota Agricultural Extension Service recently published a Family and Farm Defense Handbook. It was written by Clifton Halsey, state rural civil defense agent at the University. Copies are available from county agricultural agents or by writing to the Agricultural Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

* * * *

Dairymen: Proper cleaning is one of the best ways to prolong the life of rubber parts on your milking machines. These parts tend to absorb fat and will eventually break down if not cleaned properly. V. S. Packard, extension dairy products specialist at the University of Minnesota, says that the best thing to do is to boil the rubber parts every week or two in a solution of either lye or one of the common rubber cleaner compounds available commercially.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 12, 1965

To all counties
Immediate release

FUNGICIDE CONTROL
OF PLANT DISEASES
WORKS THREE WAYS

Fungicides--chemicals that fight plant diseases--do their work in one of three ways.

Their major use is in protecting plants from diseases, according to James D. Froyd, extension plant pathologist at the University of Minnesota. This means applying to healthy plants a fungicide which intercepts the disease organism before it penetrates plant tissues.

A second method is killing infection already in the plant. But only a few chemicals do this without harming the plant itself, Froyd adds. One that works safely and effectively is dodine, used to "burn out" apple scab infections.

The third approach is disease control through use of chemotherapeutants. This type of fungicide has a curative effect. It circulates throughout an infected plant, halting further disease development.

Thus far, chemotherapeutants have met with little success, but Froyd says they may be the fungicides of the future.

The first approach--fungicides as protectants--is the major one today. Fungicides are used as foliage and fruit protectants, seed treatments, and soil treatments.

In Minnesota, foliage spraying of field crops is limited to potatoes and sugarbeets. Vegetable growers, however, have a greater need for fungicides to control leaf diseases. Orchardists and greenhouse operators make extensive use of fungicides.

Homeowners can use fungicides on garden and landscape plants with less concern for the economics of disease control than can any of the previously mentioned persons.

add 1 - fungicide control

Seed treating for the control of seed and soil-borne diseases is a common practice on seed of most of our field crops. A fungicide is applied to the seed before it is sown for disease protection during the early stages of seedling growth.

Soil treatment is intended to kill disease-causing organisms in the soil before planting the crop. Because of the expense involved, this process is limited to high value crops, such as greenhouse and certain fruit and vegetable crops.

Unfortunately, no single fungicide will protect plants from all types of diseases. Certain fungicides are good foliage protectants while others are better seed protectants. Still others are specific for soil treatment and would kill plants if applied as foliar sprays. Thus, we have a long list of fungicides, each for a certain phase of disease control.

Crops differ in their degree of sensitivity to the same fungicide. For this reason application rates are adjusted to specific crops. Alteration of suggested application procedures can harm crops either by not providing adequate disease protection or by chemically burning the foliage or killing the seed.

Also, heavy chemical residues on raw agricultural products can be harmful to the consumer if ingested in large quantities. However, State and Federal laws prohibit residue accumulations higher than what is considered safe.

Where label directions for use are followed closely, fungicides are not dangerous to handle.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 12, 1965

To all counties
Immediate release

FERTILITY BUILDUP
MORE CRITICAL FOR
CERTAIN CROPS

"Fertility buildup" is more critical for some crops than others.

According to Curtis Overdahl, extension soils specialist at the University of Minnesota, fertility buildup programs are long-range plans designed to build up the available nutrient level of the soil.

He explains that such soil fertilization programs differ from crop fertilization where relatively lower rates of fertilizer are applied near the seed at planting time.

Farmers in many areas of southern Minnesota who apply more than 60 pounds of phosphate and 100 pounds of potash per acre in one year are, in effect, using a corrective fertility buildup program, Overdahl says.

He adds, however, that sandy soils growing such crops as irrigated potatoes may require as much as 200 to 400 pounds of potash per acre in one year to substantially raise the fertility level of the soil.

These applications, he says, are needed on low fertility fields to make efficient crop production possible. A rapid buildup is desirable where soil test levels are low for both phosphorus and potassium.

Among crops where low fertility should be immediately corrected are the high value crops like vegetables, sugar beets and potatoes. Legume hay crops should also have corrective applications since low fertility levels are a main cause of winterkill, stand failure and low yields.

If corn and soybeans are the predominate crops in the rotation, Overdahl recommends that corrective fertilizer be applied when yield potentials are above 85 bushels of corn per acre and soil tests are low.

add 1 - fertility buildup

He says that corrective, heavy fertilizer applications may not be necessary when the main crops in the rotation are small grains. In most cases a small amount of fertilizer applied in the row will be sufficient for these crops.

When heavy corrective applications are made, the cost should not be considered as a cost charged to one year's crop. Rather, he says, it should be considered over a period of years in terms of a capital improvement much like drainage or liming.

According to Overdahl, certain soils should not receive heavy corrective fertilizer applications because of low yield potential. Such situations, he explains, would be those of poor drainage, flooding hazard, steep slopes or droughtiness.

For additional information on fertility buildup programs and other aspects of fertilizer use, consult Special Report 1, published by the University's Agricultural Extension Service.

Copies of the report, titled "Interpretation of Minnesota Soil Tests for Fertilizer Use," are available from county agricultural agents, or from the Agricultural Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
April 13, 1965

FOR A.M. RELEASE, THURSDAY, APRIL 15

NEW SOYBEAN VARIETY RELEASED BY UM AND USDA

A new variety of soybeans, shown by preliminary tests to have potential value for the Japanese food market, has been released by the University of Minnesota and the U. S. Department of Agriculture (Thursday, April 15).

Named Traverse, for a western Minnesota county where the variety is well adapted, the variety is the result of an accelerated research and breeding program conducted on three continents by the University and the USDA Regional Soybean Laboratory.

A principal feature of the new variety is its yellow hilum, or seed spot, which overcomes one of Japan's objections to certain other varieties such as Chippewa, whose hilum is black.

The Japanese are among the major world buyers of U. S. soybeans, and make heavy use of soybeans for human food. But they prefer varieties with solid yellow seeds for a number of their major food products. Thus, their food industry makes only limited use of the Chippewa soybeans which were raised last year on two-thirds of Minnesota's soybean acreage.

Among the popular Japanese foods containing soybeans are Miso, Tofu, Shoyu, and Natto.

(more)

add 1 -- Traverse

Traverse is not the first soybean to have solid yellow seeds. Harosoy, adaptable to limited areas of Minnesota, also has yellow hila, but lacks other characteristics preferred by the Japanese food market, such as good water absorption and high soluble protein content.

In one test last summer by a Japanese firm, Traverse and Harosoy were compared for production of Tofu. Traverse gave a higher yield of Tofu, and scored higher than Harosoy on color, taste and consistency. Traverse also had better water absorption.

The ultimate test, of course, will be made by the Japanese market, but Traverse is definitely a promising variety, according to agronomists Jean Lambert and R. L. Cooper, in charge of the University's soybean breeding project.

Release of Traverse was speeded up a year through cooperation of a third nation--Chile. Agricultural experiment stations in Chile cooperated in the seed increase stage of development of the variety.

Soybean breeding involves a complex process of crossing and selecting to combine desirable characteristics of different varieties into a new one.

Breeding of Traverse soybeans began several years ago with selections from a cross between Lincoln and Ottawa Mandarin varieties. This seed was raised for further selection in successive years. Such a process can be slow business with only one crop a year.

To speed things up, plant breeders often seek nurseries in places where a second crop may be grown during our winter months. Barley and wheat, for example, are often increased during the winter in Southwestern states and Mexico.

Soybeans, however, cannot be raised during the winter in our Southwest or Mexico. After exploring various areas, Lambert and Cooper found soybeans did well in Chile, and in fall of 1963, they sent 7 bushels of precious Traverse seed to that nation. The seed was paired and harvested in early 1964, and the resulting seed came back to Minnesota for still further increase that summer.

(more)

add 2 -- Traverse

Traverse seed is not generally available for the 1965 crop year. According to Carl Borgeson, University seed specialist, 1,300 bushels have been distributed through county seed distribution committees to approved growers. Seed sources for 1966 will be published in the Seed Directory of the Minnesota Crop Improvement Association, available in September of this year.

Traverse soybeans are adapted to certain sections of Minnesota, Iowa and North Dakota. In addition to the yellow hila, the variety has white flowers and gray pubescence (hairy growth on stems).

Tests in Minnesota and the region show that Traverse is similar in maturity and yield to Grant, and is superior in lodging resistance. It has averaged about a bushel per acre less in yield than Chippewa and 4 days earlier in maturity.

Seed quality and composition of Traverse are similar to Grant and Chippewa.

Soybeans, a minor crop in Minnesota before World War II, have overtaken corn as the state's major cash crop. In 1963, farm receipts from soybean marketings in Minnesota were over \$126 million, and accounted for 8.6 percent of the total cash receipts from farm marketings. That compares with 8.1 percent for corn.

Acreage of soybeans averaged slightly over 2 million acres from 1950-60, reached 2.88 million in 1964 and, according to the State and Federal Crop Reporting Service, is expected to hit an all-time high of 3.22 million acres in 1965.

Japan is the biggest foreign buyer of U. S. soybeans. That nation took 48 million bushels in 1962-63 and 45 million in 1963-64. Recent studies indicate that Japan's import requirements for oilseeds will increase by about 140% in the next 10 years.

Exports of beans totaled 191 million bushels in the 1963-64 marketing year, and the U. S. Department of Agriculture has estimated exports during this year at 200 million bushels.

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
April 13, 1965

(with mat)

Immediate release

CUTLINE: Delegates to the National 4-H Conference in Washington, D. C., April 24-30 are l. to r., Joyce Thompson, Warroad; Peter Schmidt, Stephen; Edward Brophy, Brainerd; Elizabeth Covington, 3504 Clinton Ave. S., Minneapolis; and Colleen LeBlanc, Little Falls.

4-H'ERS TO WASHINGTON CONFERENCE

Five Minnesota young people will represent Minnesota's 55,000 4-H club members at the National 4-H Club Conference at the National 4-H Center in Washington, D. C., April 24-30.

They are Joyce Thompson, 18, Warroad; Peter Schmidt, 17, Stephen; Edward Brophy, 17, Brainerd; Elizabeth Covington, 17, 3504 Clinton Ave. S., Minneapolis; and Colleen LeBlanc, 18, Little Falls. Leonard Harkness, state 4-H club leader at the University of Minnesota, will accompany the group.

Selection of delegates to the national conference is based on achievements in project work as well as on service to the local 4-H club and county organization as officers and junior leaders. One of the highest awards that can come to a 4-H'er is to be chosen a delegate to the conference, according to Harkness.

The Minnesota Bankers' Association sponsors the trips to the conference each year.

Minnesota congressmen and senators will join the 4-H delegates for a luncheon on April 28 as guests of the Minnesota 4-H Federation. Vice President Hubert Humphrey and Secretary of Agriculture Freeman have also been invited to the luncheon.

Among purposes of the conference are to give delegates an opportunity to learn more about national issues and problems, to increase their understanding of democratic values and citizenship responsibilities and to give them greater appreciation of the nation's capital, its monuments and shrines.

All five delegates have been presidents of their local clubs, are active junior leaders and have been delegates to the State 4-H Junior Leadership Conference.

(more)

add 1 -- Nt'l. 4-H Club Conference

Miss Thompson, a 4-H'er for nine years, is president of the State 4-H Federation of more than 55,000 members. She is also president of the Roseau County 4-H Federation. She has received county achievement awards in leadership and achievement, was selected for the Court of Honor in the Roseau County 4-H dress revue six times and has won six purple ribbons on county fair exhibits. She is a freshman at Bemidji State College.

Schmidt is a senior in Stephen High School where he is a member of the school band, chorus and boys' glee club, plays basketball and is editor of the yearbook. His activity in conducting demonstration workshops for younger members and helping them in other ways won for him the top junior leader trophy in Marshall County. In 1963 he won reserve championship in the statewide 4-H radio speaking contest. He has been a 4-H member for eight years.

Brophy is president of the Crow Wing County 4-H Federation. He has been a counselor at the district 4-H club camp and this past year served on the continuation committee for the State 4-H Junior Leadership Conference. During the six years he has been a 4-H member, he has won awards in shop, swine, horse and rabbit projects.

As a delegate to the National 4-H Conference, Miss Covington represents the 12 percent of Minnesota's 4-H'ers living in urban areas. A club member for seven years, she has the distinction of being a charter member of the Trailblazers 4-H Club in Minneapolis. She specializes in home economics projects, has been junior project leader for health and takes responsibility for recreation at club meetings. In the four years she has been a junior leader she has helped plan programs for the year, encouraged new 4-H members and has assisted beginning sewers with their projects. She is a junior in Central High School in Minneapolis.

Now a sophomore in home economics at the University of Minnesota, Miss LeBlanc has been a 4-H member for nine years and a junior leader for four. She has been song and recreation leader of her local club, Gay Blades, and secretary of the Morrison County 4-H Federation. In 1962 she participated in the Maryland-Minnesota 4-H exchange program. She has won 4-H awards in the dress revue and in food preparation.

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
April 15, 1965

Immediate release

MINN. STUDY INVESTIGATES LAMB CONSUMPTION PATTERNS

Less lamb is appearing on the dining tables of American families, even though they are eating more red meat.

Low consumer preference and lack of availability of lamb have been given as reasons for the decline in lamb consumption from 4.8 pounds per person in the period 1947-49 to 4.5 pounds in 1964--a year when the average person was eating 16 percent more red meat.

To find out whether these reasons were valid in Minnesota, the Departments of Animal Husbandry and Agricultural Economics at the University of Minnesota surveyed nearly 4,300 persons attending the 1963 Minnesota State Fair. These people filled out questionnaires answering six questions about their lamb consumption and buying practices.

The study is discussed in detail in an article in the April issue of Minnesota Farm Business Notes, a publication of the University of Minnesota's Institute of Agriculture. Authors of the article are D. C. Dahl, University assistant professor of agricultural economics; C. E. Gates, University Agricultural Experiment Station statistician; and W. J. Aunan, formerly University professor of animal husbandry, now director of scientific activities for the American Meat Institute.

"Lamb must be more competitive in price, more broadly available, and be introduced to more consumers if the lamb industry is to share in an expanding red meat market," the authors conclude from the study. They emphasize that greater distribution of lamb to people in small towns must be encouraged if more lamb is to be sold.

(more)

add 1 -- lamb consumption

Over a fourth of the persons in the study said they preferred the taste of lamb chops to pork chops or beef steak. About a fifth said they preferred the taste of lamb roasts to pork or beef roasts. But only slightly more than one in 10 preferred chopped lamb meat to sausage or hamburger.

The older age groups had a greater preference for lamb than did the younger set and had tasted a greater number of lamb cuts. More men than women had tasted the lamb cuts listed in the questionnaire, but the women indicated a greater preference for lamb than men. Married people exhibited more lamb taste experiences than single people, though the latter apparently liked it better. Proportionately more people in higher education categories had tasted the lamb cuts listed than had those with lesser levels of education, but more of those with lower levels of education declared a liking for lamb than those with more education. Although people with low incomes had tasted fewer lamb cuts than had those with high incomes, they claimed a greater preference for lamb than the high income groups.

Nearly half of the respondents thought that seven of the eight lamb cuts listed were always available where they purchased meat. Only 9 percent said they could never get lamb. Most available lamb cuts were loin chops, shoulder chops and leg of lamb. Hardest to obtain was chopped lamb.

Size of the town made a difference as to availability--particularly if the towns were less than 10,000 in population. A fourth of the people living in towns of less than 2,500, for example, claimed that they could never get lamb.

Although so many respondents indicated a preference for lamb, the most important reason they gave for not buying lamb often was that they "never thought of it." Older people didn't buy more lamb, however, because it was either too high priced or not available to them. People under age 40 claimed they never thought of it. People from small towns listed the unavailability of lamb as the prime reason for not purchasing it.

The high price of lamb was listed by respondents with higher education as the greatest deterrent to more frequent lamb purchases. Respondents with lower levels of education failed to buy lamb more often either because they objected to its taste or said it was not available.

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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
April 15, 1965

Immediate release

AGRICULTURE COLLEGE TO HONOR 3 OUTSTANDING ALUMNI

Three outstanding alumni of the University of Minnesota's College of Agriculture, Forestry and Home Economics will be honored Saturday (April 24) at the evening banquet of the College's annual alumni reunion.

Arthur L. Anderson, Ames, Iowa, and T. Schantz-Hansen, Cloquet, former University faculty members, will receive Outstanding Achievement Awards in agriculture and forestry, respectively.

Mrs. Charlotte V. Jacobson, 1968 Cedar Lake Blvd., Minneapolis, who has been active over the years in University and home economics activities, will be awarded a special Alumni Citation.

Presenting the Outstanding Achievement Awards will be University President O. Meredith Wilson. Louise A. Stedman, director of the School of Home Economics, will award the Citation.

Anderson, who is now professor of animal science at Iowa State University, received his B.S. degree from Minnesota in 1916 and his M.S. degree in animal production and applied nutrition from ISU in 1922.

(more)

add 1 -- outstanding alumni

Following his graduation from Minnesota, he served for one year as an assistant in veterinary medicine. He then spent one year teaching in the high school at Fergus Falls. After serving in the U.S. Army in 1918-19, he returned to the University as an instructor in animal husbandry.

In 1920 Anderson moved to Ames, Iowa, to assume the position of assistant professor in animal science. He was promoted to associate professor in 1923 and in 1945 he was promoted to full professor.

From August of 1959 to February of 1960 he represented the University of Minnesota in Korea as advisor in agriculture, with special emphasis on swine production.

Anderson, who has long been active in the field of swine production and nutrition, is the author of numerous articles and several books. He was named Fellow of the American Association for the Advancement of Science in 1956, received the ISU Faculty Citation in 1961, was named Fellow of the American Society of Animal Science in 1962, and won the American Society of Animal Science distinguished award in 1962.

T. Schantz-Hansen, professor emeritus of the School of Forestry's Cloquet Forest Research Center, received his B.S. degree from Minnesota in 1915, his master's degree from the Yale Forestry School in 1917 and a Ph. D. degree from Yale University in 1935.

He was field assistant with the U.S. Forest Service from 1915-17. After a tour of duty with the U.S. Army, he returned to the UM School of Forestry in 1919. He retired in 1960.

He started as instructor in the Cloquet Forest Research Center. He was promoted to assistant professor in 1924 and associate professor in 1935. From 1933-38 he was in charge of the Civilian Conservation Corps work program there.

(more)

add 2 -- outstanding alumni

He was named director of the Itasca Forestry and Biological Station in 1940, was promoted to professor of forestry in charge of the Cloquet Forest Research Center in 1947, and in 1957 he was made director of the Center.

Schantz-Hansen, who has been active in research in the fields of silviculture and forest management, is the author of nearly 100 publications, including eight major bulletins and two books. He developed the fundamental and applied research programs at the Cloquet Center and was instrumental in rebuilding the Itasca Forestry and Biological Station.

He served for many years as an abstractor for forestry literature for Biological Abstracts and has been in charge of many local, state and national forestry committees.

In 1955 he received the Keep Minnesota Green, Inc., Senior Conservationist Award for his long period of contributions to forestry and other areas of conservation. He has been chairman for many years of the Forestry Committee of the Arrowhead Association.

Mrs. Jacobson will receive the Alumni Citation primarily for her contributions to the School of Home Economics and to the St. Paul Campus. She holds a B.S. degree in home economics.

Over the years, Mrs. Jacobson has promoted recruitment of students in home economics through her work with the Twin City Homemakers section of the Minnesota Home Economics Association.

She served as a member of the Board of the College Alumni Association, as a member of the board on the subcommittee for the naming of the home economics building, and as a member of the Institute of Agriculture Advisory Council.

Mrs. Jacobson taught high school at Mound, Minn., and at the University of Minnesota. She is a member of numerous groups and organizations, including the American Association of University Women, Friends of the Institute and the League of Women Voters.

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 19, 1965

To all counties
4-H NEWS
Immediate release

PLAN AHEAD
FOR PRODUCTIVE
VEGETABLE GARDEN

Vegetables picked from your own garden can perk up your summer meals.

Planning ahead is an important step toward productive summer vegetable gardens. Orrin C. Turnquist, extension horticulturist at the University of Minnesota, gives six planting aids for 4-H'ers and other garden enthusiasts to keep in mind.

1. Find a suitable location for your garden, preferably near the house. Well drained and level land characterize good garden planning. Shelters, such as trees, keep out sunlight and absorb the water and minerals that vegetables in the garden require.

2. Choose recommended varieties for Minnesota. Take into consideration the family's likes and dislikes, nutritive value of crops, and selection for your particular area. Each year a new list of recommended varieties is published by the University of Minnesota Agricultural Extension Service. Copies of this year's publication, 1965 Vegetable Varieties, Extension Folder 154, can be obtained from the county extension office.

3. Prepare soil properly. Give your soil plant food in the form of fertilizer and organic matter. Even heavy clay or light sandy soil will produce good crops if organic matter is properly applied. Barnyard manure, compost, peat and winter rye used as cover crops are good sources of organic matter.

4. Plant crops at the proper time. Plant cool season crops early. After the soil warms up plant warm season crops such as beans, corn, tomatoes, eggplant and peppers.

-more-

add 1 - garden aids

5. Control weeds, insects and disease regularly. A simple and effective way to control weeds is to stir the soil with a garden rake early in the season as the weed seeds are germinating. Mulching the soil with straw, hay or lawn clippings also controls weeds.

Spraying weeds with fungicides and insecticides will help greatly to control garden pests. A bulletin on insect control is available at your county agent office -- Entomology Fact Sheet No. 11, Controlling Insects in the Home Vegetable Garden.

6. Harvest for quality. Pick fruits frequently for more productivity and better quality. Pull root crops before they are over mature

-smk-

Department of Information
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Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 19, 1965

To all counties
ATT: HOME AGENTS
(2nd in a series on
furniture selection)

CHECK FABRIC,
CONSTRUCTION WHEN
BUYING FURNITURE

Know what you're looking for when you select a piece of upholstered furniture. Improved quality and styling are now available for the medium-priced budget.

Rachel Munson, assistant extension home furnishings specialist at the University of Minnesota, gives some points to look for when purchasing upholstered furniture:

- Outside upholstery construction. Good tailoring has the crosswise thread running parallel to the bottom edge of the frame. If the grain has been cut and placed correctly on the furniture piece, the hems and pleats will hang straight. Smooth, straight and firmly sewn cording is an indication of good quality. Reversible cushions will distribute wear.

- Inside construction. A good quality base, jute or rubber, will give support to springs and cushions. Steel is less resilient than jute or rubber. Avoid a base with wood slats.

Springs, to add resilience and prevent sagging, should be made of tempered carbon steel and placed close together. Look for at least eight coil springs in an average-size chair.

The label should list the contents of the filling used. Padding and filling can include (in order of quality) goose down, rubber foam, urethane, man-made fiberfills, rubberized or curled hair, moss, kapok, sisal or cotton.

- Upholstery fabrics. Upholstery fabrics include wool, nylon, linen, acetate, rayon, cotton and vinyl plastic. A good quality upholstery fabric is strong and closely woven, comfortable to the touch and pleasing to the eye.

add 1 - upholstery furniture

Vinyl plastic is easily cleaned, waterproof and colorfast. A low grade vinyl will split at corners or seams, resulting in a tear that cannot be repaired. Vinyl plastic when used on upholstered furniture with springs should be fabric backed.

- Finishes. Zelan and Sylmer, silicone finishes, protect fabrics against water-borne stains. Scotchguard repels oil and water stains. A permanent moth-proof finish will prevent moth damage in wool and wool blends.

- Comfort. The potential user should find armrests that fit naturally. Both the lower and upper part of the spine should be supported by the chair back. The depth of the seat should be slightly less than the length of the thigh.

For more information ask at your county extension office for Extension Bulletin 318, Upholstered Furniture.

-smk-

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 19, 1965

To all counties
Immediate release

IN BRIEF.....

Credit in emergency areas: Extension economist Paul Hasbargen at the University of Minnesota reminds farmers in officially-designated "emergency areas" that if they need more credit than normal lending agencies are able to supply, they may apply for credit from the Farmers' Home Administration. Flood damages may well raise the demand in some areas over what private credit institutions can handle. As a result, local offices of the FHA will be in a position to take on this overload, even for farmers who would otherwise not qualify for FHA loans. A related point: counties designated as emergency areas as a result of the drought last summer are still considered as such until December of this year.

* * * *

New soybean variety released. Traverse soybeans, shown by preliminary tests to have potential value for the Japanese food market, has been released by the University of Minnesota and the U. S. Department of Agriculture. A principal feature of the variety is its yellow hilum, or seed spot, which overcomes one of the objections of the Japanese food industry to certain other varieties, such as Chippewa which has a black hilum. Considering all their uses of soybeans, Japan is the biggest foreign buyer of soybeans grown in the U. S. Note: Traverse soybean seed is not generally available for 1965. About 1,300 bushels have been distributed to approved growers, and seed sources for 1966 will be published this fall in the Seed Directory of the Minnesota Crop Improvement Association.

* * * *

Safe and effective insect control with insecticides depends on proper identification of the pest, knowing its habits and biology, and intelligent choice of the best combination of practices and chemicals available. To help in these matters, the University of Minnesota has a new 32-page bulletin on "Insecticides and Their Uses in Minnesota." Copies are available from county agricultural agents and the Agricultural Bulletin Room, University of Minnesota, St. Paul 55101. Ask for Extension Bulletin Number 263.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 19, 1965

To all counties
Immediate release

IMPROVEMENT PROGRAM
AVAILABLE TO MINNESOTA
SHEEP PRODUCERS

A sheep improvement program is available again this year to the 15,000 flock owners throughout Minnesota, according to C. J. Christians, University of Minnesota extension animal husbandman.

Christians, who is also supervisor of the testing program, explains that the plan involves selecting flock replacements according to twinning ability, gaining ability and wool production.

Producers taking part in the program will record data for each ewe on such items as fleece weight, twins, weight of lambs at weaning time and age. This information is then used to compute a "selection index" for each ewe. Ewes with the lowest index are culled from the flock and replacements are saved from high indexing ewes.

According to Christians, many sheep producers in the state are already participating in and profiting from this program.

The sole purpose of the Minnesota Sheep Improvement Program, he says, is to help purebred and commercial sheep raisers locate the best producing ewes and rams in their flocks.

This is especially important to the purebred breeder because nearly all of the sires of market lambs come from purebred flocks. Rams that sire fast-gaining lambs which finish as desirable market lambs not only benefit the commercial sheep raiser, but can mean repeat sales for the purebred breeder.

Christians points out that although sheep numbers have declined about 30 percent in the last three years, sheep still contributed about \$14 million to the state's economy last year.

add 1 - improvement program

Greater efficiency of lamb and wool production must be obtained in order to maximize land usage. And Christians explains that the Minnesota Sheep Improvement Program is designed to help the Minnesota sheepman realize more profits from his enterprise.

Sheepmen who want more information on the improvement program should contact their county agricultural agents, or write to Christians at the Extension Animal Husbandry, University of Minnesota, St. Paul, Minnesota 55101.

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Department of Information
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University of Minnesota
St. Paul 55101 -- Tel. 647-3205
April 20, 1965

Immediate release

FILLERS FOR YOUR WOMEN'S PAGES

Meat supplies only about 10 percent of the calories for a day's needs, but 50 percent of the protein and 25 percent of the iron.

Nutrients most often found to be lower than the recommended amounts in the diets of children and adults in the United States are vitamins A and C, calcium and iron. Inclusion of more fruits and vegetables in the diet for vitamins A and C and iron and more milk for calcium are recommended by University of Minnesota extension nutritionists.

If you want more meat to serve at the table, always cook your meat at low to moderate temperatures.

Lean pork has no more fat than lean beef. Pork is an excellent source of thiamine, needed for a healthy nervous system.

Always use low heat when cooking eggs or any egg dishes. Extension nutritionists at the University of Minnesota, say that eggs, like other protein foods, will become tough if cooked at too high a temperature.

Boiling sour cream may cause it to curdle. To retain the smooth texture of dairy sour cream, avoid high temperatures.

A teaspoon of lemon juice and some chopped parsley added to 1/4 cut melted butter makes a good topping for broiled fish or green vegetables.

If you're bothered by the size of your food bill, deduct the cost of such non-food items as soap, paper towels, light bulbs and cigarettes--and you'll find your food bill isn't as big as you thought.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
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April 20, 1965

Immediate release

FAO RAISING LEVELS OF NUTRITION

From 10 to 15 percent of the world's population--300 to 450 million people--are hungry or undernourished, and up to a half of the population suffer from hunger or malnutrition or both.

By the year 2,000 food production must be trebled if an adequate food supply is to be provided for all the world's people, a nutrition official for the Food and Agriculture Organization of the United Nations said Tuesday (April 20).

In a talk on world food problems given on the University of Minnesota's St. Paul Campus, Mary A. Ross emphasized that world hunger is the problem that faces the nations and the people who are combining their efforts through FAO. Miss Ross recently assumed her duties as nutrition officer for FAO in the North American Regional Office in Washington, D. C.

FAO has taken up the active fight against world hunger through the United Nations Expanded Program of Technical Assistance. Thus far FAO has sent approximately 3,500 experts into about 60 countries to give technical assistance with their problems of development. Drawn from almost every country of the world, these experts have been sent into assisted countries only at the invitation of the governments. An important aspect of the work of FAO is training local personnel.

A major objective of FAO is to help member governments raise the levels of nutrition and standards of living. Home economists are making a direct and essential contribution by assisting governments in developing nutrition programs at all educational levels, Miss Ross said.

As an illustration of FAO's work in nutrition Miss Ross described a project in action in Basutoland, a British territory in southern Africa. The aim of the project is to raise the nutritional status of the rural population through a program of intensified nutrition education combined with practical demonstrations of a self-help nature. The nutrition education and the demonstrations are designed to promote local production and utilization of better foods and the training of personnel. Success of the program since 1961 has encouraged the Basutoland government to create two additional pilot areas in 1965. The program will now reach about 13.5 percent of the population of Basutoland.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
April 20, 1965

Immediate release

SUGGESTS STATUTE FOR COUNTY GOVERNMENT FLEXIBILITY

A permissive statute which would allow Minnesota counties to modify their governmental organizations to fit local conditions has been suggested by a U. S. Department of Agriculture social science analyst at the University of Minnesota.

Robert I. Wessel of the Farm Production Economics Division of the Economic Research Service points out that Minnesotans concerned with the organization of county government are looking for alternatives to alleviate some problems which now exist in county operation and finances.

So far, he says, some Minnesota counties have instituted governmental changes within present statutory limits. He adds that additional changes without statutory revision are also possible.

But a permissive statute allowing greater flexibility in county governmental organization would make it possible for local governments to adopt tried and proven practices or to innovate with new practices whenever the need arose.

In an article in Minnesota Farm Business Notes, a publication of the University's Agricultural Extension Service, Wessel describes some organizational variations that exist in county government in Minnesota and other states.

(more)

add 1 -- county government

Some Minnesota counties have eliminated the county superintendent of schools when rural school districts were consolidated to 12 or less. These counties, he explains, then employ a district school superintendent or a county superintendent from an adjoining county.

All but 14 counties in the state have consolidated the administration of relief in the county. The other counties use villages, towns and cities as agents for relief while the counties administer the Federal-State-County welfare programs.

A major change that has occurred in Minnesota, according to Wessel, has been the elimination of county poor farms. Other methods are now being used to provide for indigents.

One innovation currently being tried in Minnesota is the intergovernmental use of law enforcement personnel. The county sheriff provides a deputy for peace officer work in villages participating in the agreement. This system provides villages in the county with a local officer and central administration.

Counties in neighboring states are also attempting many administrative changes, Wessel points out, either because they can no longer support the existing system or because they want more economical methods of operation.

He says the most drastic changes in county government are occurring in South Dakota. One county there is totally consolidated with a contiguous county.

Three other South Dakota counties have discontinued their administrations and now rely on an adjoining county to provide necessary administrative machinery. These counties have only a board of road commissioners to determine road policy.

Michigan, which is under a somewhat different form of county government, allows some consolidation of county offices. Some counties in Iowa jointly employ county superintendents of schools and cooperate in other administrative programs.

(more)

add 2 -- county governments

According to Wessel, innovations in county government are taking place throughout the United States. A county in Montana has a county manager, a Virginia county has removed the sheriff from law enforcement and made him an officer of the court and some New York counties and one Wisconsin county elect executives.

Some experimentation has been made with county government administration and its relationship to urban communities, Wessel explains. The five-county cooperation around Detroit, Mich., is an example of what could be done in some areas of Minnesota.

There, he explains, Wayne County cooperates with four surrounding counties in matters of mutual concern such as roads, water, sewage, waste disposal and recreation. Intercounty committees cooperatively plan projects of common interest.

These examples and others, he says, indicate the wide range of alternatives which presently exist and which could possibly prove successful in counties in Minnesota.

He warns, however, that county institutions that have successfully operated for a long time and continue to operate without any major problems should not be changed merely for the sake of change.

The advantages and disadvantages of the various alternatives depend entirely on local conditions. But county governments, Wessel adds, should have the flexibility to modify their organizations to fit their needs.

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65-99-vak

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 20, 1965

To all counties
Immediate release

MERCURY CONTAMINATION
ILLEGAL IN GRAIN
FOR FEED OR FOOD

If you're treating oats, wheat, barley or other seed for planting with any of the mercurial fungicides, better be careful what you do with left-over treated seed.

Food and Drug Administration inspectors randomly sample grain shipments in interstate commerce for illegal pesticide residues, and mercurial fungicide is a contaminant they commonly look for.

Mercury on grain intended for feed or food products is illegal.

Extension plant pathologist James Froyd at the University of Minnesota has this advice. Try to treat only the amount of seed needed for planting. But if it's difficult to calculate, treat a little less than you think you'll actually need.

Then if you need more, you can treat the extra amount directly in the seed box on the planting drill. Or, for that matter, you can treat all the seed that way.

Several mercury fungicides are available for seed box treating, and they are well worth using. And, of course, it is possible in many areas to buy pre-treated seed.

But the point of caution is this: Don't let any left-over seed treated with mercurial fungicides get mixed with grain for feed or for sale later this year.

In order to reduce the number of cases of treated seed being sent to market, Federal law requires that grain seeds treated with poisonous substances must have adequate color identification before they can be shipped across state lines. This ruling went into effect in January, 1965 and applies to wheat, corn, oats, rye, barley, and sorghum.

-more-

add 1 - mercury contamination

Treated seed, when properly colored, alerts the buyer, user and processor to the fact that the seed is so treated. This is intended to prevent its use in food or feed, even if it is mixed by mistake with untreated seeds.

Between July 1, 1963 and June 30, 1964, the FDA seized 13 lots of grain in the U. S. which were contaminated with mercury compounds. This was slightly less than a third of the total number of seizures by FDA of raw or unprocessed agricultural products during this period.

If any unused seed is held over until the next planting year, plan to have a germination test conducted shortly before the planting season.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 20, 1965

To counties in
Central, N. E. and N. W
districts

Immediate release

BALSAM FIR
DEPENDS ON
PULP MARKET

While aspen gains new status as pulpwood, and the pines make strong inroads in the Christmas tree business, another well-known tree of northern Minnesota faces a somewhat doubtful future.

That species is the balsam fir, the lofty evergreen familiar in the north-eastern part of the U. S. and the Lake States.

Historically, balsam fir along with aspen was thought of as a weed tree. But when spruce budworm caused heavy losses of balsam fir in the 1920's, foresters feared the possible disappearance of a valuable source of fiber for the pulp and paper industry.

As it has turned out, balsam fir is staking its future largely on the pulp market, say extension foresters Marvin Smith and Bill Miles at the University of Minnesota.

With its long fibers and light color, balsam fir can be combined with chemical pulps for a wide range of papers, newsprint, and many high quality papers. If it weren't for this use, the foresters say, balsam would be one of the least-used and lowest-value timber species.

From 1959-63, balsam fir pulpwood production in Minnesota declined about 20 percent, from 130,000 to about 102,000 cords annually. Meanwhile, aspen increased 14 percent in pulpwood production.

Total pulpwood production from all species in 1963 was slightly over a million cords.

Balsam fir was a rather minor species in the original forests of Minnesota. But, with its ability to reproduce under difficult conditions, it became more important in second-growth forests. After fire and clearcutting, balsam fir often recovers lost territory and invades new areas when spruces, pines and aspens are removed.

add 1 - balsam fir

This ability to compete vigorously with other species in large parts of northern Minnesota, the foresters say, points to future increases in volume and area of balsam fir.

Estimates are that nearly 1½ million acres of aspen timber type will probably revert to spruce and fir by 1990.

Balsam fir has a serious insect enemy in the spruce budworm. Heaviest outbreaks currently are in Maine and Minnesota. In general, DDT is successful in controlling spruce budworm; research on use of natural predators and parasites is still in experimental stages.

Once a popular Christmas tree, the balsam fir does not have an encouraging outlook in this particular use. The extension foresters say that while important in the Twin Cities' tree market prior to the 1950-60 period, balsam fir declined from 48 percent of that market in 1960 to 34 percent in 1963.

Small size and low wood density limit use of balsam fir for lumber. Furthermore, these factors plus abundance of knots and poor preservative treating qualities restrict its use for poles, posts, ties and piling.

Balsam fir has twigs and needles which make up part of the winter diet of moose. A heavy moose population could lead to over-browsing, making it difficult to increase fir stands in the future.

While balsam fir is generally rated low as a deer food, it is highly important as cover.

Another value of balsam should not be overlooked--its esthetic value. Compared with aspen and many other species, balsam fir is a definite asset to the appearance of Minnesota's northlands, the foresters point out.

For the future, increased use of fir in Minnesota's pulp market will depend on the application of new technology that will make it more adaptable to paper pulp, as has occurred in some mills in eastern states. Such technology could lead to reversing the current downward trend in balsam fir use in the pulp industry.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
April 22, 1965

Immediate release

100 FUTURE FARMERS RECEIVE AWARDS

Over 100 young Minnesotans from 70 Future Farmer of America chapters throughout the state were recently named winners of nearly \$2,500 in FFA Awards.

They will be honored at a noon awards luncheon on the St. Paul Campus of the University of Minnesota May 3 during the state FFA convention.

Included are the following National FFA Foundation Awards of \$100 each:

Farm ~~M~~echanics--Wayne McCuen, Brewster; Farm and Home Electrification--Jerome Cronin, Motley; Soil and Water Management Award--James Hobbs, Winona; State Star Dairy Farmer--John Schroeder, New Ulm; State Star Livestock Farmer--Roger Pfeifer, Blooming Prairie. The Ortonville chapter received the \$100 Farm Safety Award.

The \$75 national awards are as follows: Star Beef Farmer--Marlyn Bultman, Fulda; Star Crops Farmer--Robert Brandt, Ada; Star Hog Farmer--Harlan Rademacher, Okebena; Star Poultry Farmer--Eldean Ernst, Barnesville; Star Sheep Farmer--Dennis Kofstad, New Richland; Star Forestry Farmer--Steve Sams, Redwood Falls.

Minnesota FFA Foundation Awards:

Regional Star Dairy Farmer--Keith Bolstad, Fertile; Lannie Macheel, Motley; Wayne Lepper, Hawley; Daniel Dixon, Grove City; Ronald Pesek, Canby; Paul Knutson, Albert Lea; and Paul Trapp, Hastings.

(more)

add 1 -- FFA awards

Regional Soil and Water Management--Arlene Larson, Climax; James Edmonson, Howard Lake; Elroy Pinkert, Ortonville; and Robert Wall, Mountain Lake.

District Star Farmers--Delray Larson, Middle River; John Gilbertson, Bemidji; Mark Benson, Alexandria; Paul Gabbert, Howard Lake; Ronald Pesek, Canby; Harlan Rademacher, Okebena; Kenneth Sorenson, Owatonna; and Wayne Hjermsstad, Wanamingo.

Other Regional awards:

Farm Mechanics--James Beach, Halstad; Kenneth Kristenson, Motley; Armond Swenson, Barnesville; Gergory Erickson, Willmar; Richard Rauenhorst, Olivia; and John Cordes, Kenyon.

Farm Electrification--Gordon Ramstad, Ada; Gregory Bakeberg, Howard Lake; and John Lindholm, Ortonville.

Farm Safety--the Fertile, Stillwater, Canby and Delavan FFA chapters.

Beef Farming--Wayne Flikke, Fertile; Bill Corner, Motley; Roger Ellefson, Barnesville; Phillip Damhof, Willmar; and Darrell Sunvold, Sacred Heart.

Crops Farming--Dennis Anderson, Motley; Harold Krueger, Barnesville; John Erickson, Willmar; Sheldon Melberg, Hector; Donald Sebby, Jackson; and Paul Stegemann, Wabasha.

Hog Farming--Steve Gullickson, Fertile; Roger Thompson, Motley; Linn Arthur Smith, Parkers Prairie; Roger Kritzeck, Howard Lake; Leon Dritz, Ivanhoe; Jerry Van Ravenhorst, Blooming Prairie; and Jerry Kimmes, Hastings.

Poultry Farming--David Foss, Greenbush; Jerome Diers, Howard Lake; Norman Westby, Renville; Paul Krienke, Sleepy Eye; and Raymond A. Mussell, Jr., Plainview.

Sheep Farming--Louie Salk, Climax; Larry Holmberg, Motley; Thomas Dallmann, Barnesville; Ronald Erpelding, Kimball; Keith Raitz, Hector; and Mark Titus, Jackson.

(more)

add 2 -- FFA awards

Forestry--Robert Slick, Baudette; Glen Waltzka, Willow River; Douglas Duus, Tyler; and Leon Bowman, Winona.

Livestock Farming--Dean Wang, Halstad; James Morrow, Motley; George Palmer, Barnesville; Cliff Larson, Willmar; Glen Rouse, Olivia; Darrel Lee Lemickson, Lakefield; and Robert Littlefield, St. Charles.

Creed Speaking--Gary Hannah, Fisher; Steven Bauman, Bemidji; Larry Hanson, Fraze; Bob Swenson, Stillwater; Dean Christensen, Redwood Falls; Doug Bouwman, Jasper; Dennis Hanson, Freeborn; and Calvin Emerson, Red Wing.

Parliamentary Procedure (chapter awards)--Barnum, Wheaton, Foley, Canby, Worthington, Faribault and Canton.

Public Speaking--Roy Nord, Bemidji; David Nelson, Parkers Prairie; Norman Planer, Jr., Annandale; Glen Rouse, Clivia; Dennis Kral, New Ulm; Perry Tilleraas, Blooming Prairie; Ken Greethurst, Lewiston.

Concrete Improvement--Dean Wang, Halstad; Ray Carr, Barnesville; James Edmonson, Howard Lake; Dennis Popowski, Ivanhoe; Jay Franz, Mountain Lake; Gary Nytes, New Prague; and Allan Simon, Lewiston.

Chapters receiving \$150 and bronze placques for showing the greatest interest and having made the most progress in growing more and better home-grown feeds are Lanesboro, Foley and Hutchinson. The awards are made by the National Dairy Products Corporation through its Minnesota division, the National Butter Company and Kraft Foods Company.

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65-102-vak

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 23, 1965

To all counties
Immediate release

LATE PLANTING
MEANS ADJUSTING
CROP PLANS

The long spell of cold, wet weather this spring means that many Minnesota farmers will need to take a second look at their crop plans.

Harley Otto, extension agronomist at the University of Minnesota, says late seeding is likely to result in lower yields, grain diseases and lower grain test weight.

He adds that late grain seeding may be all right, but crop success will depend mostly on the weather later in the season. If it's cool and sufficient rain falls in late June and early July, late-planted grain will probably do all right. The chances of producing a good crop are not as good with late seeding as with early seeding. Hot weather, too, could mean trouble--grain needs cool temperatures to form heads and grain properly.

Crop by crop, here are Otto's comments on late planting:

OATS--Late-planted oats may not suffer too much if weather is favorable this summer. In planting late, stick to the early varieties such as Minhafer, particularly in southern Minnesota. Where oats are planted late, many farmers may prefer to cut them for silage when the grain is in the dough stages. That way, yield reductions may not be as marked as they would be if the crop were left for seed.

WHEAT--Mid-summer weather will determine crop success. Check the soil temperature. If soil is 60 degrees or above at seeding time, there is more chance for seedling blight. But if the soil is cool, wheat starts faster and is more likely to outgrow the root rot organisms. Selkirk, Justin and Crim are the most common hard spring wheat varieties in Minnesota, and they are as good for late planting as any.

-more-

add 1 - late planting of crops

BARLEY--Research shows that if seeded after May 20, barley yield drops sharply. Malting quality may go down, too--partly because the later it is sown the higher the percentage of thin kernels. But this, too, depends on July weather. There is also a variety difference in this respect. Planting large seeded varieties such as Larker will help minimize loss in kernel size from late planting.

CORN--Generally a two-day delay in planting past the normal time will delay maturity about one day. With late planting, earlier than normal maturing hybrids should be used. For example, a Central Minnesota farmer who normally plants a corn hybrid with a rating of 100 days relative maturity, and whose planting is delayed two to three weeks, may want to use a hybrid of 90 days relative maturity.

If moisture conditions are favorable, farmers should consider increasing the number of plants per acre. With favorable moisture, populations of 14,000 to 16,000 plants per acre should be used on light-textured soils, while populations of 18,000 to 21,000 plants per acre should be used on medium to heavy textured soils.

The number of plants referred to is the number of plants in the final stand. It is necessary to plant from 10 to 15 percent more kernels to compensate for field losses. With these plant populations, it is necessary to use adequate amounts of fertilizer.

SOYBEANS--For delayed planting, use early varieties. Varieties such as Merit may be planted until July 1 in the area south of the Twin Cities and still produce mature beans. North of the Twin Cities, these varieties should be planted before June 15. Soybeans for hay can be planted up to July 15. It may also be helpful to use narrow rows, 24 to 30 inches apart, in maintaining soybean yields, especially with early varieties and late planting.

FLAX--After May 1, varieties Bolley, Windom and Summit are best for Minnesota. Generally, May 15-20 is the latest recommended planting date for flax in southern Minnesota, and June 1 is about the latest in the Red River Valley. As with other grain, late flax planting raises the risk of diseases and lower yields.

add 2 - late planting of crops

Another point in late planting--be sure to plant enough seed. Full seeding rates recommended per acre are: oats, 80 pounds; wheat, 1½ bushels; flax, 1 bushel; and barley, 2 bushels.

For very late planting, such crops as buckwheat may be planted up to July 1. Proso millet can be planted up to July 15 for grain in the southern part of the state, or July 1 in the north. Sudangrass, sorghum or millet may be planted for forage up to August 1.

Sudangrass and most sorghum-sudangrass hybrids may be planted late, and still produce pasture. So as to avoid prussic acid poisoning, they should not be grazed until they are at least 18 inches tall.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 23, 1965

To all counties
Immediate release

STRAWBERRY YIELDS,
QUALITY IMPROVED BY
FUNGICIDE APPLICATIONS

Even though spring is later than usual this year, once strawberry plants start growing they will follow a regular growth pattern based on accumulated heat.

This means that disease control treatments should be based on stages of growth as usual, says H. G. Johnson, extension plant pathologist at the University of Minnesota.

He points out that fungicide applications can do wonders for the yield and quality of strawberries. Timely sprays of proper fungicides can considerably reduce yield losses caused from fungus infection.

By proper sprays he means fungicides that have been cleared for use by the Food and Drug Administration and the U. S. Department of Agriculture, and which will do an effective job on disease control.

In addition to fungicide spraying, another way to help reduce the incidence of disease in strawberries is to make a new planting each spring for a berry crop the next year.

Johnson says that the bud stage of strawberry growth--the stage just before blossoming--is the most important for fungicide and insecticide application. This does not mean, however, that other applications at other stages of growth should be ignored.

For further information on strawberry disease control, consult Extension Pamphlet 184, "The Home Fruit Spray Guide," and Plant Pathology Fact Sheet 2 titled "Disease Control for Strawberries."

Copies are available from county agricultural agents or the Agricultural Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 23, 1965

To all counties
Immediate release

IN BRIEF.....

Grasshopper infestations in Minnesota this year will be scattered and localized. Alfalfa will no doubt be the primary host plant, but with roadside infestations, corn and soybeans could be next in line. These predictions come from John Lofgren, University of Minnesota extension entomologist. He adds that weather conditions during and after grasshopper egg hatch may determine the extent and severity of infestations. Newly hatched grasshopper nymphs are easily killed by prolonged periods of cool, wet weather. On the other hand, warm, dry weather is ideal for egg hatch and survival. Weather conditions last year were ideal for grasshoppers. Drought conditions resulted in population increases in all of Minnesota, except for parts of the northwest district. The southeast corner showed the greatest increases in population and area.

* * * *

Late spring means slow soil warmup: According to Curt Overdahl, soils specialist at the University of Minnesota, crops planted on cold soils will respond to row fertilizer for both corn and small grains. He adds that usually under such conditions the most efficient crop production is achieved by using fertilizer which contains the major elements of nitrogen, phosphorus and potassium.

* * * *

Wheat kernel damage: In an effort to help spring wheat producers spot and recognize the various types of kernel damage, the University of Minnesota Agricultural Extension Service has published a bulletin on "Spring Wheat Grade Factors." It covers such items as the importance of kernel damage, major causes, and ways to reduce stored grain losses. It also photographically compares the appearances of sound hard red spring and durum wheat with varying degrees of diseased or damaged kernels. Copies of Extension Folder 231 are available from county agricultural agents and the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

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Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 23, 1965

To all counties
4-H NEWS
Immediate release

RECREATION HELPS
BUILD LOYALTY
IN 4-H CLUBS

During the summer, outdoor fun and recreation become an important part of monthly 4-H club meetings.

Recreation is a necessary part of healthful, wholesome, purposeful living, says William A. Milbrath, extension specialist, young adult programs, at the University of Minnesota.

Recreation provides opportunities for the 4-H members to learn, participate and assume leadership responsibilities as each member cooperates to make games fun.

Out-of-door games involve group and individual participation. Members learn to take defeat without discouragement and to win without undue elation.

Field days can be planned and conducted to include such sports as softball, volley ball, archery, riflery and swimming. Thus 4-H clubs in the community are given a chance to become better acquainted with each other and to develop richer relationships. Team effort and loyalty also develop through sponsoring, arranging or publicizing 4-H events.

Many 4-H members will have the opportunity to attend a county 4-H camp, while other members play an active part in developing camp sites through contributions or work bees.

Another aspect of planned recreation is studying the out-of-doors--doing research in plants, animals, shells, rocks, stars or wind. Such study can often be done on picnics, bridle tours and hikes. A forester, naturalist, conservationist, weather forecaster or other expert along on the trip will provide encouragement and leadership.

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul, Minnesota 55101
April 23, 1965

To all counties

ATT: HOME AGENTS

(Third in series on
selecting furniture)

INDIVIDUALIZE
YOUR HOME WITH
WOOD FURNITURE

The versatility and easy care of today's wood furniture offers you a greater chance to individualize your home than you have ever had.

However, you can make a wise choice in buying wood furniture only if you know what characteristics to look for.

Rachel Munson, assistant extension home furnishings specialist at the University of Minnesota, points out some characteristics of good quality in wood furniture.

Hardwoods are used for most furniture pieces such as dining and bedroom furniture, coffee and end tables and any furniture with doors or drawers. Examples of hardwoods are walnut, mahogany, oak, maple, cherry, birch and gum.

When shopping for wood furniture, look for the tag that tells the kind of wood and finish. Solid wood means that all exposed surfaces are made from wood at least one-fourth inch thick. Genuine wood is solid wood that has been used for the frame parts and veneer for the larger surfaces.

Veneer is a hardwood plywood construction usually consisting of three, five or seven layers. Veneer produces a striking grain effect and is lightweight, highly resistant to warping, checking and swelling.

Finishes beautify the surface and protect the wood against moisture and wear. A good quality finish is smooth and free from rough spots, even in color, is satin-like in appearance and has a rich depth obtained from rubbing. You can recognize low quality wood finish by its cloudy, opaque, painted look. Finishes serve the function of making the wood less susceptible to damage and easier to maintain. They also prevent change in color or surface staining.

add 1 - wood furniture

Good construction is a characteristic of all good furniture pieces. The frame is usually made of solid wood. For special construction or style purposes a metal or plastic may be used. Make sure it is rust or chip resistant. The underside of the frame should be finished to prevent swelling or shrinking. A durable frame will not rock or tip when touched by the hand. Joints need to be strong and reinforced. Screws strengthen joints better than nails.

Well constructed and well fitted drawers will glide open evenly by pulling on only one side or one end. Remember that a drawer will serve its purpose only if it is the right depth. The complete interior of drawer can be of molded plastic.

The back of a chest of drawers should be inset and screwed to the frame. It is not essential that the back be of the same materials as the sides and front unless you are going to arrange the piece where the back can be seen.

Detailed information on wood furniture is given in Extension Bulletin 319, Wood Furniture. The folder is available free of charge at the county extension office.

-smk-

Department of Information
and Agricultural Journalism
Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
April 26, 1965

Special to counties in
Central and N.E. districts

Immediate release

RESEARCH PREDICTS INCREASE IN FOREST TENT CATERPILLAR NUMBERS

Forest tent caterpillars, last seen in heavy numbers around Northern Minnesota in the mid-1950s, are expected to show up at infestation levels along part of Minnesota's border with Canada this summer.

However, the infestation is not likely to cause serious economic loss in forests; more important will be the nuisance created in certain recreational areas, according to A. C. Hodson, head of the Department of Entomology, Fisheries and Wildlife at the University of Minnesota.

Areas of expected heavy defoliation, largely on aspen, will be limited to northern areas of Koochiching and St. Louis Counties, with moderate to light infestations ranging into Lake County on the east and Beltrami, Lake of the Woods, and Roseau Counties on the west.

A report from the Minnesota Department of Agriculture's Division of Plant Industry indicates about 3.4 million acres of expected infestation, of which 300,000 are classified as "heavy."

Prediction of the current outbreak is based on, mainly, two kinds of evidence. One is collections of caterpillar moths in light traps since 1956 around northern Minnesota, and the other is counts of egg bands on tree twigs.

(more)

add 1 -- forest tent caterpillars

The light trap collections have been coordinated by Hodson, in cooperation with federal and state rangers and other individuals in the state.

The total numbers of moths collected in these traps over the years show the rise and fall of infestations. Figures for 20 stations, for collections in July and August, totalled 7,544 in 1958, dropped to under 400 for the next 5 years, increased to 643 in 1963 and jumped to over 3,000 in 1964.

Because of the 1964 figures on increase in moth numbers, a further check was made on numbers of egg bands laid on trees. This information, also gathered through cooperation of public agencies, substantiated the findings based on light trap collections and helped define more accurately the areas of expected infestation.

Hodson points out that the bulk of the resort area is not involved in the predicted infestation region this year. And he adds that widespread spraying is not recommended; however, local spraying for specific resorts, parks, and homes may be advisable in some cases.

The rise and fall in forest tent caterpillar outbreaks has been subjected to long-term research in the Department of Entomology, Fisheries and Wildlife at the University, and has led to a far more precise understanding of this particular insect.

The previous outbreak of forest tent caterpillar started in 1948 and lasted into the 1950s. Before that, there was an outbreak during the 1933-38 period.

Aspen is the tree species suffering most defoliation during caterpillar outbreaks. Hodson suggests that the increase in numbers of this tree may explain why the period between outbreaks has been shorter since the 1930s, compared with earlier years and why the outbreaks now cover wider areas.

The research has also made prediction of defoliation in a given year more accurate. Predictions of infestations are based initially on the egg mass collections in the fall, but sometimes need to be modified by spring weather conditions.

Overwintering tent caterpillar eggs hatch when aspen leaves begin to break out of the bud, usually in early May. But weather then is crucial. Hatching date in a given area can be predicted by measuring the accumulation of day-degrees.

(more)

add 2 -- forest tent caterpillars

Scientists cumulatively measure the number of degree units by which the average temperature for a day exceeds 46 Fahrenheit. If the average is 50, four day-degrees are accumulated for that day. Add these over time, and when 80 such units are accumulated, hatching is expected to occur within a day.

Such measures, then, take into account both the amount of temperature increase and its duration. Similarly, accumulation of cold may be measured. Hodson measures the day-degrees by which the maximum temperature is below 60 degrees. If the maximum temperature on a certain day is 55, then five day-degrees are accumulated.

When these day-degrees below 60 exceed about 40, conditions are likely to be unfavorable for forest tent caterpillars.

This measure of cold temperature accumulation starts after the expected hatching date, and helps predict loss of young caterpillars. Thus, favorable early weather could lead to hatching, which, if followed by persistent colder weather, could reduce populations.

This year, with a late spring, hatching is less likely to be followed by unfavorable weather than in an early spring.

If young caterpillars survive, they go through five larval stages, increasing from 1/10 to about 2 inches in length. About 70 percent of their feeding is in the last stage, which explains why people often aren't aware of them until mid-June.

Finally, in mid-June, the caterpillar spins a cocoon, usually in a rolled-up leaf. It pupates in about 2 weeks, between mid-June and early July.

Most moths, then appear in July, usually reaching their peak in the middle of the month. These moths then mate and lay eggs in band masses around the twigs of, mostly, aspen trees, and the eggs are dormant over winter.

Actually, the name "tent caterpillar" is something of a misnomer, because there is not tent made anywhere in the life cycle of this insect. The eastern tent caterpillar, a relative of the one in Minnesota, does make such a tent, but is of little economic importance. The tents of the eastern tent caterpillar are seen, usually, on wild cherry trees along fence rows and woods margins.

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Institute of Agriculture
University of Minnesota
St. Paul 55101 -- Tel. 647-3205
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Immediate release

LATE CROP SEASON PROBLEMS VARY WITH SOILS

Severity of the problem of a late crop production season in Minnesota this year will vary from area to area depending on soil types, according to Lowell Hanson, extension soils specialist at the University of Minnesota.

He says that the main soil factors contributing to the delay of spring field work are texture, topography and drainage.

The area of the state having the greatest potential for crop loss due to a late spring is the extensive and usually very productive Clarion and Nicollet-Webster soils in southern Minnesota.

Hanson says that a large proportion of these soils, which cover a triangular area roughly bounded by lines between Albert Lea, Worthington and Willmar, are the flat-lying, fine-textured Webster and Glencoe soil types.

The combination of level or depressional land plus a high proportion of clay in the soil texture tends to cause slow surface and internal drainage. Water in the soil this time of year is a definite disadvantage since considerably more heat is required to warm wet soils than drier ones.

(more)

add 1 -- late crop season

These wet soils often remain too cold for optimum corn and soybean growth until well into June. This, Hanson says, lowers yields because any delay in planting and early growth means a loss of the critical long sunlight days of this latitude. Further south, however, day length and season length are not as critical as fall frosts are later on.

Other soil areas of Minnesota where late wet seasons are likely to be a severe problem are the Kasson-Skyberg soils near Austin and Dodge Center, and the Aastad and Flom soils in Lyon, Yellow Medicine, Chippewa and Swift counties.

In the case of Skyberg soils, Hanson points out that internal drainage is very slow, which results in equally slow soil drying. But since the southeastern part of Minnesota as a whole was very dry last year, the recent rains perhaps helped that area more than the delay has hurt crop production prospects.

The part of the Red River Valley which is close to the river has fine textured clay soils. That area often experiences drainage problems in the spring, but since snow depths were not as heavy there as in much of the state, Hanson feels that the season may not be as delayed as in southcentral Minnesota.

He adds, however, that Carl Ash, West Polk county agent located in Crookston, reports that spring field work in that area is approximately two weeks behind schedule.

The sandier soils in central and northeastern Minnesota may also have a late season this year. But Hanson points out that soils in that area usually warm up quite rapidly when the air temperatures rise.

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Immediate release

U LANDSCAPE ARBORETUM TO OPEN TO PUBLIC THIS WEEKEND

The University of Minnesota Landscape Arboretum will be open to the public beginning Saturday, May 1, according to an announcement from Leon C. Snyder, head of the University's Department of Horticultural Science and arboretum director.

The opening is several weeks later than usual because of the delayed spring.

Variations in weather, Snyder points out, make it impossible to predict the exact date specific plants will bloom. However, visitors are encouraged to check at the arboretum office to find out what is of special interest on the day of their visit.

The office will be open from 9 a.m. to 5 p.m. daily.

The following flower calendar will give visitors an approximate timing of bloom at the arboretum:

- | | |
|---------------|--|
| May 2-8 | Bloodroot, marsh marigolds, hepaticas, violets. |
| May 9-15 | Apricots, flowering plums, Mayday tree, forsythias, magnolias, Juneberries, Korean azaleas. |
| May 16-22 | Virginia bluebells, flowering crabapples, showy trilliums, spireas, flowering crabapples, lilacs, azaleas. |
| May 23-29 | Lilacs, spireas, flowering crabapples, ladyslippers. |
| May 30-June 5 | Azaleas, viburnums. |
| June 6-12 | White fringe-tree, catalpas, rhododendrons, weigelas, hawthorns |
| June 13-19 | Peonies, potentillas, roses, mockoranges. |
| June 19-26 | Mockoranges, Japanese tree lilac, daylilies. |

A new publication, A Guide to the Arboretum, contains a map of the arboretum and lists points of interest to see, including the woodland garden and bird food area, the bog trail and the various plantings. Copies of the guide are available from Bulletin Room, University of Minnesota, St. Paul, Minn. 55101 or at the arboretum.

The 322-acre arboretum is located 2 miles east of Victoria or 4 miles west of Chanhassen on State Highway 5. Planted in a natural setting, the arboretum provides an opportunity to study plant materials in natural landscape groupings.

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BEEKEEPERS' SHORT COURSE SET FOR MAY 7-8

A Beekeepers' Management Short Course will be conducted May 7-8 on the St. Paul Campus of the University of Minnesota.

The course is open to beekeepers throughout the state as well as to anyone interested in beginning a beekeeping operation, according to LaVern Freeh, head of the Department of Agricultural Short Courses for the University's Institute of Agriculture.

Topics to be covered include regulations pertaining to beekeeping, pollen and pollen substitutes, spring and early summer management of colonies, pollination, adult bee diseases and enemies, and first steps in beekeeping.

Instructors will be University staff members and State Aparist C. D. Floyd, of the State Department of Agriculture's Division of Plant Industry.

Registration will begin at 8:15 a.m. Friday (May 7) in room 203 Coffey Hall. Fee is \$5 for the entire course, or \$2 per day and \$1 for the Friday evening session.

The two-day short course is being sponsored by the Department of Entomology, Fisheries and Wildlife at the University.

For further information write to the Department of Agricultural Short Courses, University of Minnesota, St. Paul, Minn. 55101.

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FOR RELEASE: After 8:30 p.m., Monday, May 3

HAWLEY BOY NAMED 1965 STATE STAR FARMER

Steven Lamon, 17-year-old member of the Hawley High School Future Farmers of America chapter, was named this evening (Monday) as Minnesota's 1965 FFA State Star Farmer.

He received a \$200 cash award and a plaque from the National and State FFA Foundations. The award was presented at the annual State Future Farmers of America banquet in the Aldrich Arena in St. Paul.

The banquet was held in connection with the annual Minnesota FFA convention on the St. Paul Campus of the University of Minnesota.

Selected from a group of 285 State Farmers, this year's top Future Farmer is the son of Mr. and Mrs. Ellis Pender of Hawley. He has one sister. His agriculture instructor and FFA adviser is John Hest, and his high school superintendent is S. J. Sonju.

Now completing his fourth year of vocational agriculture in Hawley High School, the farm youth has increased his net worth by \$3,839.83 during the past three and one-half years.

Prior to 1964 Steven rented nine acres of cropland from his stepfather and mother. In May last year he purchased an 80-acre farm, and with the exception of four acres set aside for a building site, he divided the remaining acres into late flax, alfalfa and permanent pasture.

Steven owns 15 beef cattle, three dairy cattle, 12 ewes, two feeder cattle and 1800 bales of alfalfa. His farm equipment is valued at \$960 and land and buildings at \$7,200. He financed his farm program through savings, the Hawley FFA Chapter loan fund and the local bank.

Presently serving as chapter president and district treasurer of the FFA, Steven has also served as chapter reporter and chairman of the Leadership Committee. He is a delegate to the State Convention, and has represented his chapter at the National FFA Convention. (more)

add 1 -- Hawley boy

He has been a member of the FFA chapter wildlife, meats and general livestock teams, and is chairman of both the local slow moving vehicle emblem safety committee and the local duck and pheasant programs. In addition, he is junior leader in 4-H, a member of the school newspaper staff and a football letterman.

Named Regional Star Farmers at the banquet were: Brent Aarestad, Halstad; Samuel Misbe, Little Falls; Steven Lamon, Hawley; James Jenson, St. Francis; Keith Raitz, Hector; Richard Abel, Fairmont; Myron Malecha, Montgomery; and James Riess, Pine Island.

Fifteen adults were named State Honorary Degree Farmers for their years of service to FFA members. They are:

Farley Bright, assistant commissioner, State Department of Education, St. Paul;

Herbert Flueck, state conservationist, United States Soil Conservation Service, St. Paul;

Al Fountain, secretary, St. Paul Union Stockyards Company, South St. Paul;

LaVern Freeh, director of Agricultural Short Courses, St. Paul Campus, St. Paul;

William Guelker, area agriculture coordinator, Staples;

Norbert Hartle, father of state FFA president, Owatonna;

Honorable Hubert Humphrey, United States Vice-President;

Lawrence Lamberty, Northwestern National Bank, Rochester, past FFA Foundation donor representative;

Joe Martinson, KWLM Radio, Willmar;

R. Paul Marvin, associate professor, agriculture education, St. Paul Campus, St. Paul;

Harry Pierce, Jr., president, Minnesota Vocational Agriculture Instructors Association, Winona;

Kenneth Relyea, president, Farmers Seed and Nursery Company, Faribault, chairman of the Finance Committee of the Minnesota FFA Foundation;

Honorable Karl F. Rolvaag, Governor, State of Minnesota, St. Paul;

Olaf C. Soine, professor, Northwestern School and Experiment Station, Crookston;

Truman Tillerias, FFA adviser and vocational agriculture instructor, Blooming Prairie.

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Immediate release

TIPS GIVEN ON RESTORING FLOODED LAWNS, SHRUBS

Shrubs, trees, lawns and flower borders damaged by floods need not be charged off as a total loss, a University of Minnesota horticulturist said today.

Growth may still develop in shrubs and trees that now appear dead, according to C. G. Hard, extension horticulturist. He gives some recommendations for restoring the landscaping in flooded areas.

Many shrubs will not leaf out because primary buds have been knocked off by rushing waters. In several weeks, however, secondary buds will develop on lilacs and many other shrubs so that they should be in leaf in early summer.

If tree branches have been deeply gouged by ice on one side, the wound should heal eventually, but if the bark has been removed all the way around the tree, it will die. If there is no sign of growth on some of the limbs or in the main trunk, remove the dead portion.

Some tree species will defoliate and die back because of the deep silt and mud around the base. If possible, remove the silt deposits; if that is impossible, prune some of the branches to help the tree adjust to the root injury.

On lawns where water stood for 15 to 20 days, the grass will probably have smothered. Where mud and silt deposits are deep, it would be best to remove as much as possible, then level the lawn and reseed. However, if the lawn needed leveling before the flood, level the silt, add organic matter such as manure, peat or compost--1 to 2 bushels for each 5-foot square of lawn. Apply 10-10-10 or 0-20-0 fertilizer at the rate of 30 to 40 pounds per 1,000 square feet and mix thoroughly into the soil. Rake the surface and seed.

In the flower border, remove any silt that covers clumps of perennials such as lilies and peonies. After removing as much of the accumulated silt as possible, broadcast fertilizer to maintain the nutrient level, using 3 to 4 pounds of 10-10-10 or 8-8-8 fertilizer per 100 square feet.

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(with sketch)

Immediate release

LOW-COST HOUSE PLAN HAS THREE BEDROOMS

A plan for a low-cost, fairly small house has been designed by architects and engineers of the U. S. Department of Agriculture's Cooperative Farm Building Plan Exchange.

The 960-square-foot living area includes three bedrooms, a bathroom, kitchen-dining area and a living room. The carport and outdoor storage space add another 296 square feet.

The kitchen-dining area is in the shape of a broken U, with space along one wall for the water heater and washing machine. The living room adjoins the kitchen-dining area.

A carport and storage space has been added to the rear of the house. From the carport a back entrance leads into the kitchen.

The floor area of the plan (No. 7169) is well within the cost limits set by the Farmers Home Administration for construction loans.

Working drawings of this plan, No. 7169, may be obtained for 75 cents from Blueprint Room, Department of Agricultural Engineering, Institute of Agriculture, University of Minnesota, St. Paul, Minn. 55101. Money must accompany the order. Be sure to specify the number of the plan you are ordering.