To all counties

ATT: Extension Home Economists

Immediate release

WOMEN AND TEENAGE GIRLS NEED IRON

Do you have the pep and energy you need for all your activities? Your vitality and vigor comes partially from eating foods that supply your daily needs for iron.

Many teenage girls and women don't get their daily iron requirement, according to studies conducted by the U. S. Department of Agriculture. Extended or severe iron shortage leads to anemia, constant fatigue and increased susceptibility to disease.

Iron combines with protein to make hemoglobin, the compound in the red blood cells that carry oxygen from the lungs to muscles, brain and other parts of the body. The loss of blood during the menstrual cycle drains the iron supply and is the reason women need more iron than men do.

Each day you should eat foods that will supply your iron needs. Some iron rich foods are lean meat, whole grain and enriched bread, fortified cereals and some vegetables and fruits, says Mary Darling, extension nutritionist at the University of Minnesota.

Most lean meat has a substantial amount of iron. Meats such as liver, heart and kidney are especially rich in iron. One portion of liver supplies 10 of the 10 to 20 milligrams of iron required each day. Liverwurst, clams and oysters also purply iron.

Whole grain and enriched breads are readily available sources of iron. Check the wrapper to see if the bread is enriched or fortified with extra amounts of iron. The Food and Drug Administration is urging the baking and milling industry to triple the iron content in enriched bread. The new iron limits in one pound of enriched bread would be 50 to 60 milligrams of iron. Many breakfast cereals are also fortified with iron.

add 1--women and girls need iron.

Some vegetables and fruits are good sources of iron. Dark green leafy vegetables such as spinach, chard and dandelion greens have iron. Dried, uncooked apricots and peaches are chewy snack foods that are rich in iron. Prunes and prune juice are good sources of iron. Soups or casseroles that contain beans and peas are also good.

Getting iron into the diet seems to be a more acute problem than it has been.

Because iron speeds oxidation—and thus food spoilage—processors have become increasingly efficient at eliminating iron from food. The bleaching and processing of bread flour reduces its iron content by more than two—thirds; hence it is important to select products that are restored by the enrichment process. We are also eating many foods that are not enriched such as snack crackers and cookies.

Remember that getting the right amount of iron in your diet each day takes careful planning when you choose your foods.

To all counties

4-H NEWS

Immediate release

COUNTY 4-H'ERS WILL COMPETE IN HORSE JUDGING

County 4-H'ers will be among 75 youths who will											
(Number-write out)											
compete in the second State 4-H Horse Judging Contest September 26 in Fergus Falls.											
They are: (names and addresses)											
Each county is permitted to enter one 4-H horse judging team of four members.											
The participants in the contest will judge five halter classes on type, action											
and soundness.											
Purpose of the contest is to expand the opportunities for 4-H pleasure horse											
project members in Minnesota and to increase their knowledge in recognizing											
characteristics of good horses, says County Agent											
Trophies will be awarded to the top placing individual and team. The final team											
score will be based on the scores of the three highest members of each team. A new											
traveling trophy will be unveiled this year and will be awarded to the county having											
the winning team. The trophy is being donated by Norris K. Carnes of So. St. Paul.											
Last year the first State 4-H Horse Judging Contest attracted 13 teams composed											
of 52 4-H'ers from 13 different counties.											
More than 4,000 4-H Club members are now enrolled in the 4-H pleasure horse											
project in Minnesota, of them in County.											
The Horse Judging Contest is sponsored by the University of Minnesota's											

Agricultural Extension Service and the State 4-H Horse Advisory Committee.

Summary of purple ribbon winners in 4-H demonstrations and dress revue at Minn. State Fair (Blue ribbon winners and other detailed information available on request)

4-H PURPLE RIBBON
DEMONSTRATORS NAMED
AT STATE FAIR

Some 30 4-H members were selected from more than 800 demonstrators to receive top rating -- purple ribbons -- for their "how" and "why" demonstrations at the 1970 Minnesota State Fair.

Twenty-one girls were chosen to four Courts of Honor from approximately 250 girls who modeled clothing they had made.

Purple ribbon winners for the excellence of their demonstrations were:
Arts and Crafts - Le Ann Baker, Jasper, Pipestone Co.

Clothing - Debbie Dose, Glencoe, McLeod Co.; Renee Janas, Columbia Heights, Anoka Co.; Ruth Ellen Luehr, Preston, Fillmore Co.; Karen Groh, "aterville, Le Sueur Co.; Mary Rocchio, Hibbing, N. St. Louis Co.; Alene Churness, Ortonville, Big Stone Co.

Conservation and Forestry - Mary Thorston, Springfield, Redwood Co.;
Lucinda Hruska, Waterville, Le Sueur Co., and Mary Pettis, Kasota, Le Sueur Co.

Electric - Small Engines - Jon Moren, Warren, Marshall Co.

Entomology - Patricia Donnay and Bil Cooper, Kimball, Stearns Co.

Foods - Diane Moen, Sedan, Pope Co.; Diane Emge, Faribault, Rice Co.; Nancy Hacmac, Owatonna, Steele Co.; Cathy Geurs, Minneapolis, Hennepin Co.

Health - Connie Majerle, Hibbing, N. St. Louis Co.; Beverly Ohe, Mothsay, W. Otter Tail Co.; Kathy Bryce, Glenwood, Pope Co.

Home Improvement-Family Living - Colleen and Gail Meyer, Reading, Nobles Co.; Linda Radford, 1246-90th St. E., South St. Paul, Dakota Co.

Horticulture - Gary Olson, Cottonwood, Lyon Co.

Junior Leadership - Mark Galchutt, Lakeville, Dakota Co.

Photography - Josephine Olmshenk, Freeport, Stearns Co.

Safety - Cindy Siems, Fergus Falls, W. Otter Tail Co.; Susan Turje, Dassel, Meeker Co.

Livestock - Mark McCulley, Maple Plain, Hennepin Co.; Coleen deVries, Ada, Norman Co.; DruAnn Bullis, Princeton, Mille Lacs Co.

<u>Livestock</u> (using live animals) - Lori Beversdorf, 6591-168th St., Eden Prairie, Hennepin County, and Curtis Roos, Edgerton, Rock Co.

Dress Revue Courts of Honor:

First Court of Honor - Peggy Freeman, Starbuck, Pope Co.; Peg Gramm, Hancock, Stevens Co.; Jan Derksen, Lake Crystal, Blue Earth Co.; Sonja Stuehrenberg, Kent, Wilkin Co.

Second Court of Monor -Jo Anne Thibodeau, Faribault, Rice Co.;

Melody Wolfe, Kiester, Faribault Co.; Donna Marie Karau, Lewisville, Watonwan Co.;

Sue Larson, Adams, Mower Co.; Lori Duerst, Grand Meadow, Mower Co.;

Billeye Goemann, Fairmont, Martin Co.

Third Court of Honor - Sandra Zehrer, Sauk Centre, Stearns Co.;

Debbie Boike, Montevideo, Chippewa Co.; Marcy Anderson, Garvin, Lyon Co.;

Debbie Paulsen, Pipestone, Pipestone Co.; Mary Weber, Lake Benton, Lincoln Co.;

Caryl Yonker, Estherville, Iowa, Jackson Co.

Fourth Court of Honor - Louise Swanson, Hastings, Dakota Co.;
Carol Booth, Buffalo, Wright Co.; Rebecca Johnson, Fergus Falls, W. Otter Tail
Co.; Kathy Engel, Hendrum, Norman Co.; Becky Tank, Cottage Grove, Washington Co.

Department of Information

and Agricultural Journalism Institute of Agriculture University of Minnesota St. Paul, Minn. 55101 Sept. 8, 1970

Summary of 4-H livestock exhibitors and judging teams at Minn. State Fair

4-H CHAMPION LIVESTOCK EXHIBITORS NAMED AT MINNESOTA STATE FAIR

Steve Weinrich, an 18-year-old 4-H'er from Lake City in Wabasha County, was named grand champion 4-H dairy exhibitor in competition at the Minnesota State Fair.

Steve was selected by an interview committee of dairy specialists on the basis of his long-time 4-H dairy record, knowledge of the dairy industry and leadership ability.

Top livestock exhibitors in the 4-H division at the State Fair were:

DAIRY CAPTLE

Dairy Showman - Dennis Pierson, Lake Elmo. Reserve: Cindy Wesely, Owatonna.

Milking Shorthorn - Champion purebred: Daniel Larson, Kasson. Reserve:

David Erie, Gonvick. Grade breed champion: Neil Konickson, Plummer.

Reserve grade champion: Gloria Opdahl, Avoca.

Holstein - Champion purebred: Brian Martens, Lafayette. Champion grade:

Gary Hutton, Dundas.

Champion purebred:

Brown Swiss:-/Mavis Portner, Sleepy Eye. Grade Champion: Linda Finstrom, Kandiyohi.

Guernsey - Champion purebred: Duane Wirt, Lewiston. Grade champion: Paul Olstad, Lanesboro.

Ayrshire - Champion purebreed: Cindy Stephenson, Rose Creek. Champion grade: Alan Jabs, Jordan.

Jersey - Champion purebred: Gayle Degler, Excelsior. Grade champion:
Daniel Judes, Sauk Centre.

BEEF

Showmanship - Randy Bollum, Faribault.

Angus - Bob Mathiason, Alden.

Charolais - Rita Pries, Eyota.

Commercial -Cindy Demmer, Ellendale.

Hereford - Linda Schmidt, Eyota.

Shorthorn - Janet Koehler, St. Charles.

SHEEP

Grand champion ewe and champion commercial grade: Kent Bargfrede, Estherville, Iowa (Jackson Co.). Reserve champion over all breeds: Cynthia Gronseth, Winnebago.

Showmanship -Kendall Bogue, Farmington. Reserve champion showman: Karen Piveral, Rochester.

Breed Champions - Columbia: Kevin Bogue, Farmington, champion;

Dianne Nissen, Edgerton, reserve. Hampshire: Kendall Bogue, Farmington,
champion; Eileen Kroeger, New Richland, reserve. Suffolk: Cynthia Gronseth,
Winnebago, champion; Cindy Kipley, Zumbrota, reserve. Corriedale: Melonie
Maitland, Isle, champion. Commercial: Kent Bargfrede, Estherville, Iowa
(Jackson Co.), champion; Elaine Suderman, Windom, reserve.

SWINE

Grand champion: Jim Cords, Mankota. Reserve champion: Jerroll Dittbenner, Morgan.

Showmanship: Robert Schoper, Jeffers, grand champion; Arvin Dekam, Chandler, reserve champion.

Breed Champions - Hampshire: Connie Chicos, New Richland, champion;

Lynne Kiehne, Lanesboro, reserve champion. Chester White: Steven Bartsch,

Owatonna, champion; Mike Terhaar, Rogers, reserve. Duroc: Geraldine Murphy,

Guckeen, champion; Vickie Davis, Oakland, reserve; Poland China: Jerry Deters,

Eitzen, champion; Rosien Deters, Eitzen, reserve.

add 2 - 4-H livestock summary

SWINE (cont'd)

Spotted: Cindy Grass, Owatonna, champion; Javid Windschitl, New Ulm, reserve. Yorkshire: Fred Herr, Brownsdale, champion; Jim Lieske, Henderson, reserve. Commercial: Jim Cords, Mankato, champion; Jerroll Dittbenner, Morgan, reserve.

POULTRY

Grand champion: Carol Heckmann, Norwood.

Breed champions: - Leghorns: James Scram, Owatonna; Black Austrolorp:
Betty Kopischke, Madison Lake; White Rock: Marilyn Kurth, Stewart;
other breeds: Karsten Kramer, Milan.

Champion duck - Debra Albers, Mazeppa.

Champion geese - Regina Gonshorowski, Greenbush.

RABBITS

Grand champion: David Olsen, Grand Rapids. Reserve champion: Martin Miller, Marshall.

GENERAL LIVESTOCK JUDGING TEAM

First place team - Jackson County: Dan Yonker, Estherville, Iowa;

Tom Nielson, Jackson; Ken Puck, Lakefield; Jim Kowe, Jackson. Second place Stearns Co.

Tied for high individual honors: Dan Yonker, Estherville, Iowa and Jim Anderson, Belgrade.

DAIRY JUDGING TEAM

First place team - Steele County: Cindy Wesely, Owatonna; Anthony Seykora, Owatonna; Ruth Schuelke, Owatonna; and Kenneth Knutson, Owatonna. Second place team - Dakota County: Joe McAndrew and Jim Carroll, Rosemount; Charlotte "olkow, Farmington; George Schaffer, Cannon Falls. High individual: Cindy Wesely, Owatonna.

COUNTY HERDSMANSHIP AWARDS

Purple winners: Dakota, Nicollet, Nobles, Renville, Rock, Roseau, Steele and Swift.

Department of Information and Agricultural Journalism Institute of Agriculture University of Minnesota St. Paul 55101 Tel. 373-0710 September 8, 1970

Summary of purple ribbon winners in 4-H exhibits and booths at the Minnesota State Fair.

PURPLE RIBBON WINNERS IN 4-H EXHIBITS NAMED

Purple ribbons were awarded to Minnesota 4-H'ers in 14 different 4-H exhibit areas during the State Fair, according to Leonard Harkness, state leader, 4-H and youth development, University of Minnesota.

More than 1,200 exhibits were on display in the 4-H building during the 10-day period. Some 2,600 4-H'ers exhibited in these areas and in the livestock show.

Exhibit winners and their classes were:

Booths: Faribault, Fillmore, Isanti, Renville, Steele, Waseca.

Agronomy: Michael Brantner, Georgetown, Clay Co.; Richard Stangler, Kilkenny, Le Sueur Co.; Harvey Peterson, Cokato, Wright Co.

Clothing: Christine Peterson, Clara City, Chippewa Co.; Jackie Haberman, Windom, Cottonwood Co.; Elaine O'Donnell, Albert Lea, Freeborn Co.; Judy Kokkonen, Cloquet, St. Louis S. Co.

<u>Flectric:</u> Tom Soltau, LeRoy, Mower Co.; Guy Bristol, Cottage Grove, Washington Co.; Joe Ruether, Red Wing, Goodhue Co.

Entomology: Marlo Van Dorsten, Walnut Grove, Redwood Co.; Brenda
Peterson, Albert Lea, Freeborn Co.; Allen Knutson, Caledonia, Houston Co.;
Don Eversviller, Detroit Lakes, Becker Co.

Plant and Soil Science: Michael Brantner, Georgetown, Clay Co.

add 1--purple ribbon winners

Food Preservation: Julie Mortenson, Waconia, Carver Co.; Connie Eberhard, St. Paul, Washington Co.; Sandy Dalbey, Mora, Kanabec Co.; Cindy Wooner, Chatfield, Olmsted Co.; Lois Nakleby, Montevideo, Chippewa Co.

<u>Food Science:</u> Mary Ulrich, Callaway, Becker Co.; Margaret Bisek, New Prague, Scott Co.

Gardening (Indoor): Mary Sauke, Northfield, Dakota Co. (Vegetable):

Darlene Hanson, Albert Lea, Freeborn Co.; Robert Stocker, Le Center,

LeSueur Co.; John Stocker, Le Center, Le Sueur Co.; Pat Kopel, Donnelly,

Stevens Co.; Sheryl Tamczak, Anoka, Anoka Co.; Teresa Boll, Maple Plain,

Hennepin Co.; Loren Anderson, McIntosh, Polk E. Co.; Eugene J. Fox,

Maple Wood, Ramsey Co.

Horticulture: Mary Reinert, Tracy, Murray County; Gloria Bonfy,
Albert Lea, Freeborn Co.; Jean Bird, Madelia, Watonwan Co.; Charlene
Thalmann, Plato, McLeod Co.

Home Improvement and Family Living: Cindy Clauson, Cannon Falls,
Goodhue Co.; Phyllis Swan, Balaton, Murray Co.; Vickie Neumann, Owatonna,
Steele Co.; Caryl Fadatz, Lewiston, Winona Co.; Cindy Cords, Lake Crystal,
Blue Earth Co.; Laurie Everhart, Piquot Lakes, Crow Wing Co.

Photography: Rich Hoyme, Golden Valley, Hennepin Co.; David Souther, St. Paul, Ramsey Co.; Rick Petersburg, Owatonna, Steele Co.; Ann Gathje, Theilman, Wabasha Co.; Mark Gonnerman, Northfield, Rice Co.

Potato: Karen Goetze, Osseo, Hennepin Co.; Delores Carlson, Williams, Lake of the Woods Co.; Lois Jahn, New Prague, LeSueur Co.

Shop: Glen Danielson, Kandiyohi, Kandiyohi Co.; Neil Benson, Karlstad,
Marshall Co.; Clayton Johnson, East Grand Forks, Polk W. Co.; David Roberts
Wykoff, Fillmore Co.; James Werner, Delavan, Faribault Co.; Kevin Hoffmann,
New Ulm, Brown Co. ###

APPLICATIONS FOR H.E. FRESHMAN SCHOLARSHIPS REQUESTED SOON

High school seniors who intend to enter the University of Minnesota's School of Home Economics for the fall quarter of 1971 and want to obtain scholarships should apply for them early this fall, according to Ralph Miller, coordinator of the scholarship program in the School of Home Economics.

High school counselors will receive information on the University freshman scholarship progam in early September. However, each prospective student should assume the responsibility of contacting the counselor to receive the appropriate scholarship and financial aid information, Miller said.

Students in the School of Home Economics may receive financial assistance from various sources including scholarships, Economic Opportunity grants, National Defense loans and guaranteed bank loans.

Applications for the University of Minnesota Freshman Scholarships

Program must be returned to the University by December 15, 1970 if the

student is to receive consideration for assistance for fall, 1971. They should be

sent to Financial Aid Office, University of Minnesota, Minneapolis, Minn.

55455.

REGIONAL 4-H HORSE SHOWS SCHEDULED

Five regional 4-H horse shows will be held in Minnesota Saturday, Sept. 12.

Locations are the Itasca County fairgrounds, Grand Rapids; the Red River Valley Winter Shows building, Crookston; T and B Stock Farm, Cambridge; Fox Hollow Saddle Club grounds, Le Sueur; and Hole-in-the-Mountain County Park, Lake Benton.

The regional horse shows attract approximately 400 young horsemen and horsewomen each year, according to Wayne Carlson, assistant state leader, 4-H and youth development, University of Minnesota. All of them have won blue ribbons at previous horse shows, many of them held at county fairs.

Popularity of the 4-H pleasure horse project has been increasing over the years, Carlson says, until now over 4,200 boys and girls are enrolled.

A demonstration of broomstick polo will be an added feature of the regional shows this year, in addition to the usual competitive events.

The shows are sponsored by the University of Minnesota Agricultural Extension Service, local saddle clubs and horse breed associations from throughout the state.

ARTS AND CRAFTS WORKSHOPS AT REDWOOD FALLS ART EXHIBITION

Arts and crafts workshops, open to anyone interested, will be featured during the Southwest Minnesota Art Exhibition in Redwood Falls Sept. 25-27, according to Huldah Curl, extension arts coordinator at the University of Minnesota.

The four workshops scheduled this year are: decorative stitchery and painting critique and demonstration, both on Saturday, Sept. 26, from 9:30 a.m. to 4 p.m., and stage set design and silk screen printmaking on Sunday, Sept. 27, from 9:30 a.m. to 4 p.m.

Instructors for the workshops are Charlene Burningham, University of Minnesota and Minnesota Weavers' Guild staff member; Joseph Pizzat, chairman of art at Southwest Minnesota State College; John Jensen, resident designer for the Tyrone Guthrie Theatre; and Paul Jasmin, instructor at Minneapolis College of Art and Design.

Tuition for each workshop is \$7.50. Registration for each workshop, with check, should be sent to Continuing Education in Art, 316 Nolte Center, University of Minnesota, Minneapolis, Minn. 55455 on or before Sept. 21.

The Southwest Minnesota Art Exhibition is co-sponsored by the University of Minnesota's Agricultural Extension Service and General Extension Division and the Southwest Women's Association for Fine Arts. Purpose of the exhibition is to give amateur artists in southwestern Minnesota counties an opportunity to display their works. The exhibition is open to the public Sept. 25, 26 and 27 from 9:30 a.m. to 5 p.m.

Department of Information and Agricultural Journalism Institute of Agriculture University of Minnesota St. Paul 55101 Tel. 373-0710 September 9, 1970

WHAT LIVING COSTS TAKE MOST OF YOUR DOLLARS?

If you're having trouble making your budget stretch, you may wonder which particular living costs are taking the biggest share of your family dollar.

Food and housing compete for the largest share. Together they consume about 50 percent of the budget, according to Mrs. Fdna Jordahl, extension home management specialist at the University of Minnesota.

Another 25 percent of the budget goes for clothing, medical expenses, transportation, personal care and personal spending. Taxes, life insurance, gifts and miscellaneous items make up the remaining 25 percent.

In the Twin Cities in spring, 1969, the cost for a family of four on a moderate-cost budget was \$10,369. This amount was for a family consisting of an employed husband aged 38, a wife with no outside employment, a 13-year-old son and an 8-year-old daughter. In contrast, in 1966 living costs for the same family--again on a moderate-cost budget--was \$9,495, according to the U.S. Department of Labor statistics.

Cost of living varied from one city to another, sometimes as much as \$2,000. In Boston, a moderate-cost budget for a family of four in spring, 1969 was \$11,108; in San Diego, \$10,127 and in Dallas, \$9,265.

add 1--living costs

In non-metropolitan areas the average moderate-cost budget for a family of four in spring, 1969 in the North Central Region was \$9,425--almost \$900 less than for the Twin Cities area. Generally, living costs are lowest in the South and in the far West and New England. But in all regions, they tend to be lowest in non-metropolitan areas.

Here is the way the \$10,369 budget for a family of four in the Twin Cities was allocated: housing, including shelter, household operations and house furnishings, \$2,420; food, \$2,187; transportation, \$955; clothing and personal care, \$1,096; medical care and medical insurance,\$492; other family consumption,\$623; personal taxes, \$1,700. Gifts and contributions, life insurance, occupational expenses and social security and unemployment compensation taxes are also included in the toal budget. Families who own a home have higher costs than those who rent. A car also adds to expenses.

From the spring of 1969 to April 30, 1970, the rise in the cost of living in the Twin Cities was greater than that in any other major city in the U.S., according to the Bureau of Labor Statistics. The consumer price index for the Twin Cities urban area rose 8 percent during the period compared with 6 percent for the United States as a whole. Housing and food were most responsible for the increases.

However, the rate of increase in any particular region does not necessarily mean that prices are higher than in other regions. It means, rather, that prices have risen faster, not that they are actually higher, Mrs. Jordahl said.

THIRTY 4-H'FRS WIN DAIRY PRODUCTION AWARDS

Thirty 4-H'ers have won meritorious production awards for their highproducing dairy animals.

The production was based on standard verified central-processed DHIA records. The animals selected, all of which were exhibited at the 4-H livestock show at the Minnesota State Fair, were the highest producing in their breed, both registered and grade. Each winner received an award from the American Dairy Association of Minnesota.

For high production for the third consecutive year, Duane Wirt, Lewiston, and Mike Tieden, Hayfield, received plaques, Wirt for his registered Guernsey, Tieden for his registered Jersey.

Eight club members were awarded desk sets for high production records for their animals for the second year: Kent Erickson, Badger (grade Holstein); Paul Draheim, Waseca (registered Ayrshire); Richard Alberts, Pine Island (registered Holstein); Brian Martens, Lafayette (registered Holstein); Greg Zak, Angus (registered Holstein); Sheila Meschke, Morristown (registered Holstein); Loren Anderson, Farwell (grade Holstein); Loring Davis, Cokato (grade Holstein).

Twenty youths received electric clocks for the high production records of their dairy animals: Mark Mensing, Blue Earth; John Buascker, Jordan; Jo Anne Snyder, Grand Meadow; Tim Krueger, Gary; Teresa Bentley, Twin Valley; Brad Tennis, Hayward; La Vonne Skaar, Hayward; Brent Woods, Dent; Dean Mahlum, Canby; Dennis Popp, Rice; Mary Mort, Milaca; David Sprengler, Plato; Gloria Johnson, Milaca; Linda Stegeman, Beaver Creek; Ellen Stegeman, Beaver Creek; Debbie Dillon, Olivia; Mark Thompson, Starbuck; Mike Hennen, Ghent; Judy Demmer, Ellendale; and Doris Husfeldt, Gaylord.

Immediate Release

UM Economist Says:

NO MINIMUM SIZE FOR BEEF FEEDLOTS

TRACY--There is no minimum size cattle feedlot operation for efficient production, Paul Hasbargen, University of Minnesota extension economist, told the Beef Feeders' Day meeting Thursday (Sept. 10) at Tracy, Minn.

Cattle feedlots will tend to center around the size that best suits the economic structure for agriculture in a particular area rather than conforming to a minimal size. Normally this will be feedlots of less than 150 head on small cornbelt farms, medium size lots of 300 to 1,000 head capacity on larger crop farms in the western cornbelt and large-scale, specialized lots in the Southern Plains, he added.

The trend toward more commercial and specialized feeder operations will continue, but there will be a place in the market for small operators including supplementary feeding enterprises and the specialized farmer-feeder, Hasbargen said.

The supplementary enterprise will be desirable for the farmer who, meets one or more of these conditions:

- -- Sees little alternative use for his family's labor.
- --Can produce feed in excess at a significantly lower price than it can be purchased.
- --Has rough land but can produce enough feed to support a small feeding operation.
 - -- Has an operation suitable for a small cow herd.

--Lives in a high crop risk area, such as western Minnesota, where weather-damaged crops can be used for a cattle feeding operation.

Other factors such as community development efforts and integration of the operation with packing plants will determine the relative importance or size of the beef feeding enterprise in a particular farm business. The decision is essentially whether the enterprise should be a small, supplementary one, a major enterprise or a specialized business, Hasbargen added.

"When returns from beef feeding are low relative to alternative enterprises, but there is a surplus family labor available, the feeding enterprise might best remain a supplementary enterprise. These factors are in force on many cornbelt farms. Thus, economic pressures suggest cattle feeding should be a supplementary user of excess labor, building and forage resources on these farms.

"Also, if a small cow herd fits the farm resources, feeder cattle are available at a lower real cost. However, if the lot size is expanded from 50 head to 500 head on such farms, it would make the enterprise competitive with other enterprises for labor and power," Hasbargen said.

Below average managers might find it difficult to get enough out of market prices to pay the costs, but the proven cornbelt feeder-farmer willing to hire additional labor can achieve some advantages of larger size by expanding his operation with 500 to 2,000 head, he added. Such an operation will be tied to the crop production unit, although some extra grain might be purchased.

Department of Informartion and Agricultural Journalism Institute of Agriculture University of Minnesota St. Paul 55101 Tel. 373-0710 September 10, 1970

MINNESOTA NUTRITION CONFERENCE BEGINS MONDAY

About 200 University and feed industry representatives from the north central region are expected to attend the thirty-first annual Minnesota Nutrition Conference starting Monday, Sept. 14, in Minneapolis.

The two-day event will be held in the Holiday Inn Central, 1313 Nicollet Avenue, and will feature a symposium Monday morning on Vitamin E and selenium in animal nutrition and a symposium Monday afternoon on full-fat soybeans in diets for swine and poultry.

Scheduled to participate in the morning symposium are Oscar E. Olson, head of station biochemistry at South Dakota State University; Duane E. Ullrey, professor of animal husbandry at Michigan State University, and R.M. Jordan, professor of animal science at the University of Minnesota.

The afternoon session will include Lester E. Hanson, professor of animal science at the University of Minnesota; Hugo Kuechenmeister, manager of the Animal Feed Department and Research Farm for George A. Hormel and Co.; P.W. Waldroup, associate professor of animal science at the University of Arkansas; E.T. Moran Jr., associate professor of poultry science at the University of Guelph, Guelph, Ontario, Canada, and J.W. Nordstrom, assistant professor of animal science, University of Minnesota.

add 1--nutrition conference

Among those participating in Tuesday's session will be Norman Magruder, poultry research manager for Cargill, Inc.; Edmund Guenther, poultry research instructor at South Dakota State University, and Robert E. Jacobs, professor and extension animal husbandman at the University of Minnesota. The Tuesday morning session will deal with poultry nutrition and the afternoon session will be mainly concerned with cattle nutrition.

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202-daz-70

September 10, 1970

STATE 4-H MARKET LIVESTOCK SHOW SET FOR SEPT. 17-19

Preparations are being made for the State 4-H Market Livestock Show at the Minnesota State Fairgrounds Thursday through Saturday (Sept. 17-19), according to Farl Bergerud, assistant state 4-H club leader.

Club members who qualified with their livestock by placing in county shows will participate in the show. Both live judging and carcass judging are on the agenda.

Judging of sheep and swine is scheduled for Friday (Sept. 18) starting at 8:30 a.m. in the Swine Barn. Breed champions will be judged in the afternoon starting at 1:15.

A livestock evaluation clinic will be held on Thursday (Sept. 17) and a 4-H recognition banquet sponsored by the St. Paul Area Chamber of Commerce will be held Friday night (Sept. 18).

Steer judging will be held on Saturday (Sept. 19) starting at 8 a.m. in the Hippodrome. Beef champions will be judged at 1:15 the same day.

Livestock exhibited at the show will be consigned to commission firms at the South St. Paul Stockyards where top quality animals will return top market prices to their owners.

The show will be sponsored by the University of Minnesota's Agricultural Extension Service and the Minnesota Livestock Breeder's Association. Various breed organizations, as well as the sponsors, will award prizes to exhibitors of top live animals and carcasses in each breed. Business donors will provide extra cash awards to 4-H'ers placing in the blue and red ribbon groups.

To all counties

Immediate release

UNIVERSAL MILK SAMPLE PROPOSED

A universal sampling procedure would simplify and standardize bulk milk sampling techniques, says Vern Packard, extension dairy industries specialist at the University of Minnesota.

The universal sample means one sample for every purpose. It's the name applied to a sample taken each collection day which can be used for both butterfat and quality tests.

The universal sampling procedure would make the hauler's job more uniform since a routine is established which doesn't vary from one collection to the next.

Confusion arising from differences in sampling techniques for butterfat and quality test is eliminated.

The system also means that a sample is available at all times and may be used for routine testing or rechecking. This means that a fieldman won't have to make a special trip if a recheck is needed.

Neither the hauler nor producer is aware if any use will be made of a particular sample, so temptations are reduced.

Techniques for the universal sample are essentially the same as for butterfat sampling, Packard says. The only difference is the use of a sterile container.

Precautions against contamination during sampling are necessary, but these precautions should be taken anyway, he adds.

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To all counties

Immediate release

SAMPLE SOIL AFTER HARVEST

Take soil samples right after you finish harvesting, suggests Charles Simkins, University of Minnesota soil scientist.

He says there may be considerable variation in the results from a soil test, depending on the time of year in which the sample is taken. But after harvest, fields are usually at their lowest plant food level.

Also, fields are accessible right after harvest, and good representative samples are easy to obtain. Often there are field areas where plant growth was stunted and yields were lower than the rest of the field. If you sample after harvest, these areas are still fresh in your mind and you can sample the poor spots separately.

Simkins offers two additional reasons for taking soil samples well in advance of the next growing season.

- * You get more time to study the results of the soil tests and formulate your fertilizer program.
- * If the soil test indicates a need for agricultural limestone, you can apply it well in advance of planting alfalfa or legume crops. It may take 6 to 18 months before limestone becomes effective in offsetting soil acidity, he adds.

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To all counties

Immediate release

UM RESEARCHERS TEST ANIMAL WASTE STORAGE SYSTEM

University of Minnesota research has shown that animal wastes from confined dairy cattle housing can be stored in a large tank with about 150,000 gallons capacity and can be agitated and removed without difficulty under proper management.

A study at the University's Northwest Experiment Station at Crookston also revealed that manure with little bedding deposited in one end of a long tank will distribute itself sufficiently under its own weight, thus making it unnecessary to use a mechanical conveyor.

Donald W. Bates, extension agricultural engineer, said the research further showed that a full tank of stored manure can be completely agitated, partially emptied, re-agitated and completely emptied without difficulty. From the Crookston experiment the researchers learned that waste heat from the dairy barn ventilation system is a valuable tool in preventing freezing in a covered external manure storage tank. Carefully planned, high capacity ventilation systems must be provided for all confined handling systems, Bates said.

Odor and appropriate disposal time are two of the most difficult waste problems facing dairymen, Bates said. Manure handling systems are varied and may range from a gutter cleaner and daily hauling with a manure spreader to extended storage in concrete tanks that are pumped periodically.

Daily hauling requires the lowest investment in equipment, but may require higher labor costs and unfavorable weather, soil or crop conditions may be encountered with this system. Slat floors in warm free-stall barns, or gutters with grated bottoms in conventional stall barns, both with under-the-building manure storage, offer suitable systems for manure handling with minimal labor, he added.

To all counties

ATT: Extension Home Economists

Immediate release

LOOK FOR USDA GRADES ON BEEF

	Two	things	are	import	ant:	in l	buying	and	cooking	beefthe	quality	grade	and	the
cut,	says	s		County	Exte	nsi	on Home	e Eco	onomist_		(say 6	extensi	Lon	
nutr	itio	nists at	t the	Unive	ersit	y of	f Minne	sota	a).					

Some cuts like rib roasts and most steaks such as sirloin, porterhouse, T-bone, club and rib steaks are tender in any grade you'll find in the retail store. Other cuts, like round steaks and chuck roasts are naturally less tender and usually should be braised or pan-fried.

When shopping for beef, look for the USDA grade shield. The USDA beef grades are a guide to how tender most cuts will be and to how juicy and flavorful the meat will be. Prime beef rates highest for tenderness, juiciness and flavor.

Choice beef is high quality. Steaks and roasts of this grade will be quite tender and flavorful. Good grade beef isn't as juicy and flavorful as Prime or Choice, but it is fairly tender.

Standard grade beef has very little fat, a mild flavor and lacks juiciness, because it comes from young animals. However, it's fairly tender, depending on the cut. Commercial grade beef comes from older cattle and isn't very tender. It needs long, slow cooking with moist heat. If cooked properly, it will have a good, rich flavor.

Look for the round Federal inspection stamp on beef for assurance of wholesomeness, and look for the grade mark to tell the quality. Nutritive value, keeping quality and cleanliness aren't associated with the grade.

All meat and poultry on the retail market must be inspected, but grading isn't required.

To all counties
4-H NEWS

Immediate release

BREAKFAST CAN BE INTERESTING

If you skip breakfast because it's the same toast, juice or cereal day after day, you may be ready for a breakfast revival, says Mary Darling, extension nutritionit at the University of Minnesota.

Try different and interesting foods for breakfast. You can choose to eat a sandwich for breakfast, or foods that many people eat later in the day such as hamburger, spaghetti, chili, baked beans, soup or deviled eggs. You can eat whatever you like. Remember that the foods you choose should include the specified amounts from the four food groups, and meet your calorie needs.

A day's eating might go like this: a cheese sandwich for breakfast along with a banana and a glass of milk. For lunch, tomato soup, tuna salad, bread and butter, tapioca cream pudding and a glass of milk. On the way home from school, you might stop with your friends for a hamburger and a soft drink. Your dinner might be two pieces of fried chicken, baked potato, broccoli, roll and butter, apricot cobbler and a cup of tea or glass of iced tea.

Checking the food guide tells you that your food was well chosen. The calories or food energy is between 2300-2400. The recommendations for each food group was also met with about four cups of milk, four servings of fruits and vegetables, five servings of bread and rolls and two servings of meat.

To all counties

Immediate release

IN BRIEF

Many Reasons for Paint Problems. There can be many reasons for an unsatisfactory paint job. The wrong paint, cheap paint, faulty application, poorly constructed buildings and moisture can all be factors. When moisture is mentioned, most people think of rain and snow beating against the sides of the building. However, moisture and dampness from within frequently cause greater paint damage. For more information, ask your county extension agent for a copy of Agricultural Engineering Fact Sheet No. 9, "Are You Having Paint Trouble?"

* * * *

Farm Partnerships. Family members interested in forming father-son partnerships should ask themselves some questions. First of all, can the son contribute enough to make an acceptable income? What about sharing of responsibility? This is especially important in proving for continuity of the business if something happens to one of the partners. What about separate housing for married sons? What will each partner put into the business? And, what consideration has been given to other family members?

* * * *

add l--in brief

Take Representative Soil Sample. When you take soil samples this fall, keep in mind that soil test results can be no better than the sample. As a general rule, any area that is different in slope, texture, color and is large enough to be fertilized separately should be sampled separately. Avoid, or sample separately areas such as dead and back furrows—terraces, old fence rows and roads—old manure or straw pile spots—lime or fertilizer spill areas—fertilizer bands—animal droppings and urine spots—and eroded knolls or low spots. Dust from crushed rock roads also affects soil pH, so take samples at least 300 feet away from such roads.

* * * *

How Often Should Soils Be Tested? For general field crops, the soil needs to be sampled about once every 3 years. However, high-value crop soils, soils under intensive use or greenhouse soils should be tested every year.

* * * *

Immediate Release

RESEARCHERS ERADICATE **D**WARF MISTLETOE IN LARGE FOND DU LAC BURN

A large-scale test burning conducted by University of Minnesota researchers in Minnesota's Fond Du Lac State Forest has shown that fire can be used successfully to eradicate drawf mistletoe, a serious forest enemy, from stands of black spruce trees.

The test was conducted last month near Cromwell in Carlton County by Professor David W. French of the Department of Plant Pathology and Professor Frank D. Irving of the School of Forestry in cooperation with the Division of Land and Forestry of the State Conservation Department.

Test burnings have been conducted by University researchers in the past, but this was the first one done on a site as large as five acres in Minnesota to eradicate dwarf mistletoe.

The test was a success in that the fire was kept under control and the parasitic dwarf mistletoe in the five-acre infection center was eradicated. French and Irving said another stand of spruce trees would become established in the area within the next few years, while dwarf mistletoe would no longer present a threat to the life of the new trees.

add 1--dwarf mistletoe

Control of dwarf mistletoe in the past has been a difficult problem.

The dwarf mistletoe is an "explosive" plant that shoots out seeds about 60 miles per hour. Researchers estimate that the seeds may travel horizontally for as much as 30 feet, but the average distance is 10 to 15 feet. The dwarf mistletoe takes both food and water from its "host," usually softwood trees such as spruces, pines and firs. The trees' branches infected by dwarf mistletoe grow into abnormal "witches' brooms" that become larger than the healthy branches. Eventually the tree dies.

Pruning infected branches to control mistletoe has been tried, but it is uneconomical. Eradication of the trees is the most economical measure to control dwarf mistletoe.

The problem with eradication through burning is to produce a fire that reaches a peak heat rapidly, then can be controlled. The fire must destroy all vegetation in the designated area, yet must remain under control. Weather conditions, including relative humidity, temperature and wind, must be favorable for a successful burn. Also, the peat must be moist enough so that the fire cannot smoulder in it long after the burn, French and Irving said.

Enough live spruce trees must be cut first to provide a layer of slash where this material is too thin and too wet to burn even when sprayed with oil. The rate of oil application necessary to insure an effective treatment or complete spruce mortality varies with the weather and drying conditions. A 200-gallon per acre oil rate insures an effective burn under safe burning conditions, but would only be practical on very small infection centers and where control and mop-up problems might be difficult, they reported.

add 2--dwarf mistletoe

In previous tests, French and Irving learned that the 100-gallon per acre rate produced variable results with a buildup index of 22 or below, but apparently would be successful with a buildup index of 30 or higher when applied to slash allowed to dry for at least 20 days. The 50-gallon per acre rate did not seem to appreciably change the spread or intensity of the fires. If economy dictates a light fuel oil application, then the oil would be most effective if applied as a starter on the windward side of a block of dried slash, they suggested.

The tests demonstrated that effective summer burns can be handled quite easily under late afternoon conditions of temperature, relative humidity and wind. The temperature and relative humidity prescription, combined with the moisture in the ground cover allowed these fires to be easily controlled, French and Irving reported.

Water evaporation results provide an index of fire intensity and could be modified in the future to provide an objective estimate of fire performance which would be directly correlated with spruce mortality, they added.

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204-daz-70

4-H'ERS TAKE PART IN YOUTH FOR NATURAL BEAUTY PROGRAM

Building picnic areas, cleaning up roadsides and vacant lots and planting flowers and shrubs in parks and on abandoned lots are some of the projects 4-H'ers will review as they participate in the 1970 Youth for Natural Beauty conference Sept. 17-19 on the State Fair Grounds.

Tours of Como Park, the University of Minnesota Landscape Arboretum and Northrup, King & Co. and its Trial Grounds are included in the three-day program.

A recognition banquet is scheduled for Friday evening, Sept. 18, for the 60 participants attending, all of whom represent clubs selected in each county for their achievements in improving their environment.

Included in Saturday's program, Sept. 19, are films, roundtable discussions on current issues of conservation and environment and reports from selected counties on their Youth for Natural Beauty programs.

Purpose of the conference is to recognize the top participating 4-H club from each county taking part in the Youth for Natural Beauty program, according to Wayne Carlson, assistant state leader, 4-H and youth development, University of Minnesota.

The program is sponsored by the University of Minnesota Agricultural Extension Service and Northrup, King & Co.

VETERINARIANS CONFERENCE SET FOR SEPT. 23

Large and small animal medicine sections will be part of the fall conference for veterinarians Wednesday at the Ambassador Motor Hotel in Minneapolis (Sept. 23).

Practicing veterinarians and faculty of the College of Veterinary Medicine will participate in the large animal medicine section, which will focus on obstructive diseases of the bovine gastrointestinal tract. Included in the panel discussion will be Drs. Stanley E. Held of Buffalo, Richard G. Peterson & Little Falls, T.F. Wetzel of Alden and Arthur L. Solie of Plum City, Wis.

Dr. Fred K. Soifer, small animal practitioner, Houston, Tex., will discuss care and treatment of exotic pets.

College of Veterinary Medicine faculty participating in the conference include

Drs. W.T.S. Thorp, dean; John P. Arnold, head of the Department of Surgery and

Radiology; Harold E. Dzuik of the Department of Veterinary Physiology and Pharmacology;

James O. Hanson, director of continuing education and project leader, Veterinary

Extension; Everett H. Heath, Department of Veterinary Anatomy; Donald W. Johnson,

Department of Veterinary Medicine; Donald L. Piermattei, Department of Veterinary

Surgery and Radiology, and Edward A. Usenik, in charge of large animal medicine.

The conference is being sponsored by the University of Minnesota College of Veterinary Medicine, Office of Special Programs and Agricultural Extension Service.

NO SIGNIFICANT NUTRIENT LOSS WITH ARTIFICIAL DRYING OF GRAIN

Artificial drying of grains has not been shown to result in any significant nutrient loss, James W. Nordstrom, assistant professor of animal science at the University of Minnesota, told the 31st annual Minnesota Nutrition Conference held recently in Minneapolis.

"Neither feeding studies with livestock nor laboratory analysis of nutrients have indicated that temperatures ordinarily utilized in artificial drying of corn cause any significant loss of feeding value," Nordstrom said.

'Temperatures used in artifically drying corn have long been of concern to the seed and milling industries.... The milling industry has found that drying temperatures above 180 degrees Fahrenheit increase formation of stress cracks in corn endosperm, decrease yield of starch and oil and increase the amount of fines," he added.

Nordstrom suggested that usual supplements of proteins and vitamins be used to compensate for minor damages to nutrients that occasionally occur with artificial drying.

"Evidence suggests that higher temperatures can be judiciously employed for rapid drying of immature corn to prevent chemical changes and thereby aid in the retention of nutrients. However, it would appear that critical tests to measure effects of temperature on amino acid availability of cereals are needed.

"Modified protein corns are now under development by plant breeders that are capable of supplying most of the growing pig's needs for essential amino acids and may be fully adequate in this respect for older pigs (130-pound weight or larger). Even slight changes in amino acid availability caused by drying temperatures could be detrimental to the feeder trying to take full advantage of the protein in these corn varieties," he said.

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209-daz-70

SCIENTIST SAYS VITAMIN E, SELENIUM ESSENTIAL TO RUMINANTS

Both vitamin E and selenium are essential to ruminants, such as lambs and calves, in preventing nutritional muscular dystrophy (NMD), according to R.M. Jordan, professor of animal science at the University of Minnesota.

Jordan reported recently at the 31st annual Minnesota Nutrition Conference in the Holiday Inn Central, Minneapolis.

An interdependent relationship of vitamin E and selenium in the response and contribution of each to the animal was noted by Jordan. For instance, selenium will not in itself sustain reproduction in the absence of vitamin E nor will vitamin E in the absence of selenium.

NMD, referred to as "white muscle disease" or "stiff lamb disease," appears in all sheep-rearing countries and many cattle-rearing countries in the world.

Muscular dystrophy is not the same in various species or at least is not caused by the same nutritional deficiency, he said. For instance, muscular dystrophy in rabbits, guinea pigs, monkeys and chicks responds to vitamin E and muscular dystrophy in lambs, calves and turkeys responds to selenium.

Jordan said deficiencies in selenium or vitamin E affect ruminants in a variety of ways: A high percentage of barren ewes, low lambing percentage, resorption of the embryo, dead lambs at birth, high lamb mortality at one to three days of age, slow gain and poor muscular development accompained by a stiff gait at two to three months of age and what the Australians call "hogget ill-thrift," occuring in sheep six or eight months old.

add l--scientist says

Currently there is no unanimous opinion that NMD is caused by insufficiencies in vitamin E and selenium. The difference in types of dystrophy suggests that neither nutrient can completely replace the other, he said. In ruminants, unless a deficiency of selenium exists in the presence of vitamin E, little response from selenium will occur. Conversely, absence of selenium apparently affects the absorption of fats and thus vitamin E, at least in the turkey, and may also do the same with ruminants, Jordan added.

Also, there may be substances antagonistic to the utilization of vitamin E and selenium, such as sulfur in relation to selenium. Rations containing alfalfa hay and kidney beans consistently resulted in 20-40 percent incidence of NMD in lambs, he said.

In any event, the intensification of livestock production accompanied by high stocking rate and increased use of fertilizer will probably increase the occurrance of NMD. This has already been noted with stock at St. Paul, Jordan added.

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208-daz-70

WINNING EQUESTRIANS CHOSEN AT 4-H HORSE SHOWS

An expert horsewoman from Lyon County, Marqueta Kompelien, Garvin, won showmanship and horsemanship honors at the Southwest Regional 4-H Horse Show in Lake Benton.

The 17-year-old young woman was the only participant in any of the five regional 4-H shows to win two trophies, Fifty-eight entries from 13 counties were represented in the Lake Benton event.

Other winners in the five regional 4-H horse shows were:

Showmanship, under age 14 - Scott Merritt, 13, Worthington; Kim Walker, 10, Bagley; Ricky Rockwell, 11, Glen Lake; Beverly Karvone, 13, New York Mills; Susan Wittrock, 13, Mankato.

Showmanship, age 14 and over - Garnet Halferty, 14, Delano; Joey Jorgenson, 16, Fisher; Karin Winscher, 16, Pierz; Cherri Fulton, 16, Aitkin.

Horsemanship, under age 14 - Cindy Blakesly, 13, Aitkin; Susan Olson, 12, Glen Lake; Paula Johnson, 13, Fergus Falls; Doug Gilligan, 12, Delano; and Cindy Snyder, 13, Canby.

Horsemanship, age 14 and over - Suzette Johnson, 18, Lake Crystal; Karen Eckhoff, 17, Henning; Ted Anderson, 16, Milaca; and Sally Axtell. 18. Duluth.

In the five events 351 horses were entered from 67 counties. Biggest of the horse shows was at Le Sueur where 130 horses were entered from 21 counties.

More than 4,200 4-H boys and girls in Minnesota are now enrolled in the 4-H pleasure horse project, according to Wayne Carlson, assistant state leader, 4-H and youth development at the University of Minnesota.

The five regional shows were held at Grand Rapids, Crookston, Cambridge,

Le Sueur and Lake Benton. They were sponsored by the University of Minnesota

Agricultural Extension Service, the Western Saddle Clubs Association, the Minnesota

Palomino Horse Exhibitors, Minneapolis Saddle and Bridle Club, Red River Saddle

Club of Breckenridge and Karvonen Arabians of New York Mills.

107-jbn-70

POPE COUNTY ARTIST GETS TOP AWARD AT S.W. SHOW

Joe Merrill, Glenwood, won the best-of-exhibition award for his painting exhibited at the fourth Southwest Minnesota Art Exhibition in Redwood Falls at the Redwood County Fair Grounds Sept. 25-27.

His oil, entitled "The Old Wallin Place," received first awards from art judges Eugene Larkin and Robert Remick.

Connie Wesner, Appleton, won a second and a third award on her oil, "Corn"; Irene Fritsch Jones, Chandler, a second award on her oil, "The Old Homestead"; and Marya Manfred, Luverne, a third award on her ink drawing, "Body."

The following artists won two merit awards each: Paula Dickey, Worthington; Arnold Kramer, Wabasso; Dan Leverenz, Windom, on two acrylics; Evelyn Rolloff, Montevideo; Connie Schall, Montevideo; Edna Sieber, Franklin, on "Morton Hotel"; and Don Van Norman, Windom.

Others receiving one merit award each were Audrey Falk, Willmar; W.S. Sather, Morton; Edna Sieber, Franklin, on "Howard Lake Barn"; and Bill Svensgaard, Montevideo.

More than 200 works of art were entered in the exhibition, of which 143 were accepted by the art jury for showing, according to Huldah Curl, extension arts coordinator at the University of Minnesota.

The Southwest Art Exhibition is open to the public from 9:30 a.m. to 5 p.m. on Sept. 25, 26 and 27. It is co-sponsored by the University of Minnesota's Agricultural Extension Service and General Extension Division and the Southwest Women's Association for Fine Arts.

The two art judges will give a public discussion of their awardselections at 4 p.m. on Sunday, Sept 27, in the main exhibition building at the Redwood County Fair grounds. # # # 113-jbn-70

FOUR SELECTED FOR 4-H ALUMNI AWARDS

Four former 4-H members have been selected as state 4-H alumni award winners for 1970, according to an announcement from Leonard Harkness, state leader, 4-H and youth development at the University of Minnesota.

They are Mrs. Harold Davy, Brownsville; George Conzemius, Cannon Falls; Mrs. Betty Rantanen, Middle River, and John W. Torgelson, Willmar.

Each year recognition is given in the state to four former 4-H members whose accomplishments, following 4-H membership, exemplify effective community leadership, public service, service to 4-H work and success in their chosen careers.

Mrs. Harold Davy, formerly Lois Glissendorf, was a 4-H'er in Houston County for 12 years, has served as an adult 4-H leader in the county for 18 years and is currently food project leader. She has also been a member of the Houston County 4-H advisory board. An elementary teacher for 26 years, Mrs. Davy is a member of the Caledonia P.T.A., a member and committee worker for the Association for Retarded Children, past president of the Houston County Education Association and is active in church work.

As a senator in the Minnesota legislature, Conzemius has supported programs for youth, with special emphasis on rural Indian minority groups. As a farmer in Dakota County he has helped to develop irrigation systems on farms. Formerly he was a science and vocational agriculture teacher in Cannon Falls and during that time was chairman of the swimming pool drive and a member of the city council in Cannon Falls. While a 4-H member in Dakota County for 12 years, he held all the offices in his local club, won trips to the Market Livestock Show, State Fair and 4-H Congress, was a junior leader and won the 4-H Key Award for leadership and achievement.

Mrs. Rantanen has served as an adult 4-H leader for 24 years. Concerned about conservation, she is Marshall County's 4-H conservation project leader.

Since the death of her husband, she and her children have managed the home farm of 840 acres. However, she still has time for community and church work. She has been Democratic-Farmer Labor party chairwoman in Marshall County for two years, a member of the county Soil and Water Conservation Area, for 12 years, American Legion Auxiliary Junior Activities chairwoman in the district, a member of the state Purebred Livestock Breeders' Association and show chairwoman for Canton Seven Brown Swiss Breeders. Her interest in dairy animals began as a 4-H member in Marshall County. She held all the offices in her club, was a winner of the county dairy award and of trips to the State Fair and Market Livestock Show.

Torgelson is president of Willmar State Junior College. Previously he had been principal of Kellogg High School and assistant principal at Alexander Ramsey High School, Roseville, principal of the high school in Harmony and a teacher in St. Louis Park, Benson and Sanborn, Iowa. He has been active in Sunday school and church work and has been president of the St. Paul Conference of American Lutheran Church Men. He has been a member of the Willmar Human Rights Commission and is a member of the Lions Club.

As a 4-H member in Swift County for 11 years, he held all the offices in the Big Bend Aces 4-H Club, was president of the Swift County 4-H Federation, vice president of the Minnesota 4-H Federation and was selected as a delegate to National 4-H Conference in Washington, D.C.

The 4-H alumni award winners will receive plaques from Olin Corporation, Stamford, Conn., at the annual 4-H Junior Leader Conference next June.

4-H HORSE JUDGING CONTEST SCHEDULED

The second annual statewide 4-H Horse Judging Contest has been scheduled for Sept. 26 in Fergus Falls.

Purpose of the contest is to increase the 4-H members' knowledge of horses and to give them an opportunity to meet other 4-H'ers in the pleasure horse project.

Since 1962 when the pleasure horse project had an enrollment of 1,019 members in Minnesota, interest has grown until this year 4,200 4-H boys and girls are enrolled. Many of them take part in county horse shows, as well as one of the five regional horse shows scheduled each September in Minnesota.

Last year the first State 4-H Horse Judging Contest attracted 13 teams of 52 4-H'ers from 13 different counties.

Each county is permitted to enter one 4-H horse judging team of four members. Ribbons and trophies will be awarded to the top placing individuals and teams.

The Norris K. Carnes trophy for the top judging team will be unveiled and presented for the first time this year.

The Horse Judging Contest is sponsored by the University of Minnesota's Agricultural Extension Service and the State 4-H Advisory Committee.

Immediate Release

WINNERS NAMED AT 4-H MARKET LIVESTOCK SHOW

Greg Recknor, a 17-year old 4-H member from <u>Hartland</u>, won the grand champion beef award at the Minnesota 4-H Market Livestock Show Saturday afternoon (September 19).

His champion steer was a 1045 pound Hereford-Angus cross. Recknor, who also was named top beef showman, will be a senior at New Richland High School.

The 9-year 4-H member was reserve champion showman at the AK-SAR-BEN livestock show in Omaha, Nebraska last year.

The reserve champion beef was also a crossbred--an Angus-Charolais cross exhibited by Tom Baumbard, 18, Brewster.

The grand champion hog was a Hampshire shown by Greta Strinmoen, 18,

Spring Grove. Reserve champion hog was a crossbred shown by Charles Soderholm,

15, Reading, and champion swine showman was Lynne Grass, 15, Owatonna.

Champion honors in the lamb division were taken by Gerald Hildebrandt, 16, Waseca. He showed a crossb red lamb. Hildebrandt took champion honors in the barrow division at last year's show. Reserve champion in the lamb division was Ida Mae Adolph, 12, Reading. Champion sheep showman was Brenda Freeman, 17, Starbuck.

Breed and reserve champion within divisions were as follows:

BEEF: ANGUS--Gary Strinmoen, Spring Grove, champion; Randy Tetrick,

Redwood Falls, reserve. HEREFORD--David Mulcahy, Barnesville, champion;

Pat Johnson, Jackson, reserve. SHORTHORN--Jeanne Benda, Alpha, champion;

Ed Kaehler, St. Charles, reserve. CROSSBRED--Greg Recknor, Hartland, champion;

Tom Baumgard, Brewster, reserve.

add 1--winners named

HOGS: CHESTER WHITE--Curtiss Langlie, Ellendale, champion; James Sviggum, Nerstrand, reserve. DUROC--Kenneth Reverts, Luverne, champion; Michael McCoy, Tracy, reserve. HAMPSHIRE--Greta Strinmoen, Spring Grove, champion; Joel Christensen, Luverne, reserve. POLAND CHINA--Bonnie May, Farmington, champion; David Rahn, Rosemount, reserve. SPOTS--Lynn Grass, Owatonna, champion.

YORKSHIRE--Rick Klemmensen, Blooming Prairie, champion; Darrell Skollervo, Dawson, reserve. CROSSBRED--Charles Soderholm, Reading, champion; John Wagner, Guckeen, reserve.

LAMBS: HAMPSHIRE--Patricia Sherbrooke, Pelican Rapids, champion; Alan Verdoes, Garvin, reserve. SHROPSHIRE--Robert Drewry, Hampton, champion; Mona Wallner, Hewitt, reserve. SOUTHDOWN--Linda Van Acker, Russell, champion; Joanne Bloch, Windom, reserve. SUFFOLK--Brian Schofield, Winnebago, champion; Bradley Powers, Dawson, reserve. OTHER BREEDS--Ida Mae Adolph, Reading, champion; Barbara Nystuen, Northfield, reserve. CROSSBRED--Gerald Hildebrandt, Waseca, champion; Terry Piveral, Rochester, reserve.

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115-jms-70

ACHIEVEMENT WINNERS, TOP COUNTIES NAMED AT 4-H SHOW

James Resch, 18, Spirit Lake, Iowa, received a \$100 U.S. Savings Bond as 1970 winner of the livestock achievment award at the close of the annual Minnesota State 4-H Market Livestock Show in St. Paul. The show was held at the State Fair Grounds September 17-19.

Resch is enrolled in the Jackson County, Minnesota 4-H and lives across the state line into Iowa. He is a freshman at the University of Minnesota and plans to major in Agricultural Education. Last year Resch was high individual in the National 4-H Livestock Judging Contest at the International Livestock Exposition in Chicago, and a member of the winning Jackson County team.

He has a flock of registered Suffolk ewes and is feeding out 13 steers in partnership with his sister. This year he was also reserve champion beef showman at the Market Livestock Show.

Second place and a \$50 bond went to Michael McCarvel, Brewster. He is a sophomore at the University of Minnesota.

Corcoran Wicker, Inver Grove Heights, took third place and received a \$25 bond. The first alternate was Brenda Freeman, Starbuck. Awards were donated by the St. Paul Union Stockyards.

Livestock achievement awards are based on the 4-H member's overall excellence in livestock projects, knowledge of animal production, and application of management principles and approved techniques for the care and feeding of livestock.

add 1--achievement winners

Dakota County 4-H members won herdsmanship honors and a trophy from the Central Livestock Association. The herdmanship trophy goes to the county delegation doing the best job of keeping animals, stable and equipment clean and orderly during the show.

Jackson County was awarded permanent possession of the Tellier trophy, awarded for the best exhibit of Shorthorn cattle.

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114-jms-70

To all counties

Immediate release

USE FERTILIZER DOLLARS WISELY

Farmers must supply sifficient plant food, but should take care not to over fertilize, says Charles Simkins, extension soils specialist, University of Minnesota.

Soils that test high in phosphorus and potassium are becoming more and more commonplace and this is due to farmers applying more than adequate amounts of fertilizer containing these elements, Simkins says.

This practice is not only uneconomical, but may upset the soil nutrient balance. Adding high amounts of potassium to a soil already high in potassium can cause or induce magnesium deficiency. And, adding high amounts of phosphorus to a soil already high in phosphorus can reduce crop yields because of zinc deficiency, the soil scientist adds.

Soil test results that are properly interpreted enable farmers to make profitable fertilizer purchases. These results can also tell him when and where this fertilizer should be applied, the soil scientist adds.

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To all counties 4-H NEWS

Immediate release

4-H FILLERS

Only about a third of the 3.5 million 4-H'ers in the U. S. live on farms.

Another third reside in cities and small towns, and the remaining third live in rural and farm communities, according to the Extension Service.

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Altogether, there are some 50 categories of 4-H programs. Each attempts to educate, teach skills, develop character and leadership, and motivate the youngster to "achieve" by doing the job as well as he can.

* * * *

The science approach to 4-H projects was begun almost two decades ago. Surveys, research, tests, experiments and evaluation now are routine for 4-H boys and girls.

New projects added in the early 60's include dog care and training, automotive care and safety, entomology, photography and horses. The most recent additional projects are creative arts, snowmobiles, small engines, small animals, veterinary science, knitting and self-developed projects. In addition, major revisions have been made in the health, plant and soil science, horticulture and foods projects to up-date them.

* * * *

The national 4-H safety program, conducted by the Extension Service and supported for a quarter-century by General Motors, enrolls about a half million youths annually between the ages of 9 and 19 years. An additional 2.5 million 4-H'ers throughout the nation also apply safety practices to many projects, according to the National 4-H Service Committee.

* * * *

Safety specialists maintain that habits formed early in childhood are likely to stay with the individual throughout a lifetime. If that is so, 4-H youths have a good start.

To all counties

4-H NEWS

For use before or during 4-H Week

4-H'ERS PUT
"WE CARE" THEME
INTO ACTION

County residents will be hearing and seeing the message "We	e care"
during the coming weeks as nearly 4 million 4-H club members throughout the	ation
observe National 4-H Week Oct. 4-10.	
The 4-H'ers in County are among the 55,000 in Minnesota who	have pu

into practice in many ways the dynamic message of 4-H Week, "We care," says Leonard Harkness, state leader, 4-H and youth development at the University of Minnesota.

Youth in this state have been involved in many meaningful ways, he points out. For several summers, 4-H has sponsored city to farm program in many counties, bringing youth from the inner city of Minneapolis, St. Paul and Duluth to the country for several days of fun and learning.

4-H'ers show their concern for senior citizens by visiting nursing homes, planning programs for the residents, writing letters or shopping for them. Making favors for hospital trays is another activity of many clubs.

The concern of 4-H'ers in the environment and in preserving the beauty of this country has been evident this summer in this country and throughout the state in the program of Youth for Natural Beauty. Young people have collected trash along roadsides, cleaned up vacant lots, beautified village parks, planted trees and flowers, painted village halls and created attractive roadside rest areas. Through the wildlife habitat program, they have provided protective cover and food for game birds and animals.

These are only a few of the ways they are involved in community service. In addition, 4-H'ers have many programs of learning by doing for action-oriented boys and girls 9 to 19 years of age, ______County Agent says.

add one--4-H'ers put "We Care"into action

Boys and girls who enroll can choose from about 100 different projects tailored to their interests and needs. The projects offer learning opportunities and personal development.

Any boy or girl between the ages of 9 and 19 interested in joining a local
4-H club may contact the County Extension Office in _____ County to find out about a 4-H club near you.

-jbn-

NOTE TO AGENT: Localize this story as much as possible. You may want to rewrite paragraphs 3 and 4 completely, using county examples only.

Be sure to use the many excellent suggestions for stories, radio shorts, editorials, etc. prepared for you in the National 4-H Week packet.

To all counties

Immediate release

BOTH PROS AND CONS TO USING PLASTIC TILE

There are both advantages and disadvantages to using plastic drain tile, advises Roger Machmeier, extension agricultural engineer, University of Minnesota.

Some advantages are that the tile is considerably lighter than concrete or clay, so handling and transportation costs will usually be less. Also, installation of the tile in the trench is somewhat simplified, since the tile is manufactured in lengths up to several hundred feet long. However, the drainage contractor must modify his trenching machine to handle the plastic tubing, Machineier says.

Possibly the largest disadvantage of the plastic drain tile is that the flow capacity is reduced about 28 percent when compared to comparable sized concrete or clay tile. This is largely due to the corrugations which are used to provide tubing strength.

While rodents are not attracted to the plastic tile, they may be able to chew through it if it's in their way when burrowing. In some cases manufacturers have suggested placing a repellent into the plastic resin in order to prevent possible rodent damage.

In order to qualify for ACP cost sharing, the drainage system must be designed according to design standards of the Soil Conservation Service. These design standards are located in all Soil Conservation Offices and ASCS Offices and are available to local drainage engineers and contractors. The flow rate capacity of the plastic tile must be reduced by a factor of 28 percent as compared to equal-sized concrete or clay tile, according to Richard Wenberg, assistant state conservation engineer of the Soil Conservation Service.

add 1--using plastic tile

The SCS has devised a method to use existing drainage flow charts. They simply increase the acreage to be drained by a factor of 28 percent and then enter the charts in the normal manner. So if you were designing a drainage system for forty acres, this value would be increased by 28 percent and 51 acres would be used as the design area for plastic tile.

At the present time only 5 and 6-inch sizes of plastic drain tile qualify for ACP cost sharing in Minnesota and the tile must be purchased from "prequalified" suppliers. If you intend to use larger size plastic tile, check with your local SCS Office for information on possible cost sharing.

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HEAVY CORN BORER INFESTATIONS

The second-brood corn borer has infested a very high percentage of corn fields in southern and central Minnesota, reports John Lofgren, extension entomologist at the University of Minnesota.

Lofgren advises farmers to make plans to harvest corn early this fall to avoid heavy losses. He says second-brood borers attack the ears and tunnel in the shanks. This weakens the shanks and as the plants dry, they break from wind action. Early harvest will help get the crop in before the ears are dropped.

Lofgren says warm summer weather triggered the high second-brood infestations. Generally the second-brood infestations are most severe on late maturing corn. However, Lofgren says he's seen many fields with well dented ears that showed high borer population.

SCIENTIST REPORTS ON UM PIG FEED TESTS

Carcasses of pigs fed dry-roasted ground soybeans were less firm than those of pigs fed soybean meal because the subcataneous fat of the first group contained more linoleic acid, according to tests conducted by University of Minnesota animal scientists.

Lester E. Hanson, animal science professor at the University, reported on the tests recently at the 31st annual Minnesota Nutrition Conference in the Holiday Inn Central, Minneapolis.

Three hundred pigs were fed at Grand Rapids and Waseca to compare soybean meal, cooked soybeans and a mixture of soybean meal and cooked soybeans as supplemental protein to a basic corn diet. Cooked soybeans made up 9.3 to 26 percent of the several diets.

All pigs gained at a rapid rate and relatively efficiently. There were no statistically significant differences in either rate of gain or feed-grain ratios due to dietary treatment, Hanson said.

Although carcasses were less firm for pigs fed cooked soybeans, the degree of softness observed is probably not of serious concern so long as the carcasses are marketed in this country, he added.

The degree of softness is sufficient to create minor problems in the slicing of bellies, but it is believed that this problem can be solved by slightly lower refrigerator temperatures. Taste panel studies showed that pork from these moderately soft carcasses is quite acceptable to consumers, Hanson reported.

Department of Information and Agricultural Journalism Institue of Agriculture University of Minnesota St. Paul 55101 Tel. 373-0710 September 22, 1970

LARGE-SCALE FEEDERS DESIRE ROUGHAGE SUBSTITUTE

Many large-scale cattle feeders would welcome roughage substitutes with desirable qualities that could be fed in small amounts, University of Minnesota animal scientists Jay C. Meiske and Richard D. Goodrich told the Minnesota Nutrition Conference meeting in Minneapolis recently.

Large-scale cattle feeders have shown interest in feeding rations with little or no roughage since procurement, cost and storage of forage materials have become greater problems.

Cattle can be successfully fed rations that contain only grain and needed protein, vitamins and minerals; however, many feeders and researchers feel that some roughage is required for optimum performance, Meiske and Goodrich said.

Some feel that roughage is needed because of "chemical" factors, nutrients and unidentified factors provided by roughage. Bulk and "roughness" factors have been regarded as the principal physical factors. These and other reasons have led many feeders to maintain small amounts of hay or silages in their cattle rations, they added.

"Differences in feeding dry shelled corn in the whole or ground form are not great from the standpoint of gains, feed intake or efficiency. Because of lower costs for whole corn than for ground corn, economics may favor the use of whole corn even if no increase in feed efficiency results," Meiske and Goodrich said.

add 1--large-scale feeders

They recommended rolling the grain to be fed to older yearlings and rolling shelled corn high in moisture content—at least corn over 30 percent in moisture.

"Although often slightly more rapid gains have been realized with small amounts of roughage (5-10 percent), the most profitable ration will depend on the cost of roughage used. Particular attention and care must be considered in supplementing high concentrate rations adequately. Higher quality management is a must for a successful all-concentrate feeding program," Meiske and Goodrich reported.

There is little to recommend the use of sand, oyster shells and polyethylene as roughage substitutes on the basis of their having any beneficial roughage effect, they said. "Probably what benefits are claimed for such substitutes are actually due to the feeding of higher concentrate rations rather than a 'roughage' effect imparted by the substitute," they added.

Apparently only roughage is effective in preventing ruman parakeratosis, but both roughage and antibiotics are beneficial in decreasing the incidence of liver abscess, they reported.

Work is needed to describe the so-called "roughage effect" precisely, Meiske and Goodrich concluded.

ECONOMIST CALLS FOR ACTION ON FOUR AREAS

Action is needed on national economic growth, regional development, human resource development and income maintenance for a comprehensive attack on the problems confronting rural people, according to a University of Minnesota economist.

Professor Arley D. Waldo of the Department of Agricultural and Applied Economics added that "many of the concerns and problems that affect rural people also are important to those living in our metropolitan areas."

Rural Americans are denied access to opportunities afforded other, but not all other, segments of American society. Therefore, the "task of stimulating rural development" is one of "expanding the quality and range of economic, social and cultural opportunities available to people," Waldo said.

National economic policies designed to stimulate the growth of employment opportunities are needed, he said. "We cannot achieve rural development in the absence of national economic growth," Waldo added.

add l--economist calls

The future well-being of rural Americans rests on multi-state regional strategies to shape the location of future economic growth and to rebuild the "timeworn economic, social and political institutions of rural America. The need for multi-state regional planning and the implementation of the plans that are developed is particularly acute in mid-American where many persons are located far from existing centers of urban-industrial growth," he said.

The opportunity and potential of many rural residents has been "severely restricted" by a rural economic policy concentrating on physical resources which has resulted in a substantial under-investment in rural education, health and other social services that contribute to human productivity, the University economist said.

"We badly need to explore ways of further improving the access of rural residents to decent health and medical services. And we still need to improve the quality and quantity of education and training available to rural people," Waldo added.

The Nixon Administration's proposed Family Assistance Plan, also known as "income maintenance," may be ranked along with Medicare and the extension of social security to farmers and hired farm workers as major legislation having a profound impact on the well-being of rural people, he said.

Income transfer programs are the only realistic way of increasing the opportunity of many individuals -- such as the elderly, fatherless and handi-capped -- to participate fully in the American standard of living, Waldo said.

MINNESOTA TO HOST 4-H TRACTOR CONTEST

Minnesota will host the 14th annual Western U.S. 4-H Tractor

Operators' Contest Oct. 4-6, according to an announcement from Wayne

Carlson, assistant state leader, 4-H and youth development at the

University of Minnesota.

Headquarters for the event will be the Hotel Lowry, St. Paul, where written examinations will be given. Driving events will be conducted in the Hippodrome on the Minnesota State Fair grounds.

Winners from 21 Midwestern and Western states will compete.

Minnesota's representative will be 19-year-old Daniel Scheffler from

Zumbrota, Goodhue County, this year's winner in the tractor finals for

4-H and F.F.A. members held during the Minnesota State Fair.

Each state enters only one contestant between 14 and 19 years of age who is enrolled in the 4-H tractor program.

The event will conclude with a recognition luncheon at Hotel Lowry on Tuesday noon, Oct. 6.

Co-chairmen for the regional tractor contest are Carlson and Jack
True, extension agricultural engineer, University of Minnesota.

Some 800 4-H members are enrolled in the 4-H tractor program in Minnesota.

Department of Information and Agricultural Journalism Institution of Agriculture University of Minnesota St. Paul 55101 Tel. 373-0710 September 24, 1970

RESEARCHERS SAY FIRST-BORN ARE SMARTER

Are first-born children smarter than their younger brothers and sisters and are they over-represented in college populations?

Generally speaking, "yes," according to a study by David M. Wark and Edward O. Swanson, both of the University of Minnesota's Student Counseling Bureau, and Judy Mack of the University of California, Davis, Calif.

The results of intelligence testing suggest why first-borns are more likely to go to college--they are smarter. The researchers examined the mean raw scores of the Minnesota Scholastic Aptitude Test (MSAT), administered to Minnesota high school juniors in 1966 to reach their conclusion.

The data clearly showed that "only children" and "first-borns" have essentially the same ability. And the later the birth order, the lower the average verbal intelligence, Wark and Swanson said.

Wark and Swanson said the study supports the argument in favor of population control. "We notice first of all that the earlier children in the family seem to demonstrate greater intelligence. The larger the family, the lower the average intellectual ability of the children. Restricting family size would automatically increase that average. Presumably, it could also increase the proportion of eminence in the general population! There are cogent arguments in favor of birth control to raise the nutritional input of the world's population. Our data suggest that the same technique would also raise the average intellectual output," they added.

add 1--researchers say

The study also presents 'definite data for the 'womens' liberation' arguments,''
the researchers said. In all cases women are more likely than men to choose
technical schools and less likely to opt for college. These results are all the more
impressive when we realize that in every birth order, women score higher than
men on the MSAT....For various reasons women themselves plan for less
advanced education, "the report stated.

The old notion that the first-born has seniority rights continues to operate.

"The first-born assumes that he has family encouragement to go on to college and plans accordingly," but there may be justification for this since the first-born "may be a better bet for a family investment in higher education." According to data used in this study, the first-born "appears to be bright and in the long run makes better use of his training. Certainly he is more likely than any other member of the family to become eminent and bring honor and glory to the name."

The researchers could not say whether the first-borns appear to be more intelligent, at least verbally, than later-borns because the mother was younger and healthier at their birth or because they received more attention. "But they do appear to be brighter and the relationship is linear. It is almost as if the intelligence-producing mechanism in the family and environment slows down through time. Perhaps the birth order-relationship is closely associated with parental health and energy level during the critical early months and years associated with child development," the report said.

Further research is needed, they said, including family interviews over 10 or 12 years to assess the different drives for achievement developed within the family in determining how birth order effects are produced.

SPECIALIST IN FOOD SERVICE MANAGEMENT JOINS U STAFF

Louise M. Mullan, Uniontown, Pennsylvania, has joined the University of Minnesota staff as an assistant professor in home economics and extension specialist in food service management.

She holds a joint appointment in the School of Home Economics and the Agricultural Extension Service.

Before coming to Minnesota Miss Mullan was state consultant and assistant professor for the vocational and technical food service, Institution Management Department, Iowa State University, and Vocational Division, Iowa Department of Public Instruction. She had previously been an administrative dietitian at West Virginia University Medical Center, Morgantown. She has served as a workshop consultant for food service education teachers for Winthrop College and the South Carolina Department of Education.

For two years she was a dietary consultant for the Ames, Iowa, Community

Day Care Center and has been a consultant to the Council on Food Service Education
in Iowa.

She holds bachelor's and master's degrees in institution management from Iowa State University.

Miss Mullan is a member of the American Dietetic Association, the National Education Association, chairman of the Institution Administration section of the American Home Economics Association and on the professional improvment committee for the Council on Hotel, Restaurant and Institution Education.

She will work with Robert Olson, extension specialist in food service management, in providing program leadership in food service management education programs in Minnesota.

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121-jbn-70

To all counties

Immediate release

FOLLOW RECOMMENDED PROCEDURES FOR FALL NITROGEN APPLICATIONS

Follow recommended management practices if you're planning to apply nitrogen fertilizer in fall.

Applying the nitrogen in late fall after corn picking or soybean harvest will help prevent fertilizer losses and contamination of ground water with excessive nitrates due to leaching, according to University of Minnesota extension soils specialist Curtis Overdahl. Cool temperatures at this time and in April restrict the activity of soil organisms which convert nitrogen to the nitrate form which is more apt to be lost due to leaching the downward percolation of water.

Nitrogen losses to the atmosphere are most severe on fine textured, heavy soils. Research shows that greatest losses occur on such soils as Nicollet silty clay loams and Fargo clay loam soils. Nitrogen losses to the air are much less on silt loam and loamy sands.

Severe nitrogen losses can occur within a day or two in warm soils that become extremely wet if nitrogen is applied to the soil surface, but little nitrogen should be lost if it's injected.

Inject ammonia 2 inches below the plow layer for shallow plowing (4 to 6 inches) For deep plowing (8 to 10 inches), inject the ammonia a couple of inches above the plowing depth planned, and wait about a week before plowing. If you plow at the same depth at which the nitrogen was applied, the injection area may be opened long enough to cause losses.

add 1--recommended procedures

Use your judgment when deciding whether to apply nitrogen after plowing, Overdahl says. Remember that ammonia must have a good seal to prevent direct losses to the air. Injecting ammonia 6 to 8 inches deep will usually insure a good seal.

Direct nitrogen losses--without biological or chemical action--result from improper application. Injecting ammonia when soils are either too wet or too dry to form a sufficient seal will cause losses. Injecting ammonia too shallow will also cause losses. Aqua ammonia requires only shallow coverage, but anhydrous ammonia should be injected 6 or 8 inches.

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To all counties

Immediate release

PLAN GRAIN DRYING SYSTEM CAREFULLY

Some careful thought and planning is required to develop the corn drying, handling and storage system that best fits your needs.

There are three main types of farm grain dryers presently in use in Minnesota, says Harold Cloud, extension agricultural engineer at the University of Minnesota. The first is bin drying, including batch-in-bin, in-storage and bin drying with stirring devices. The other two main methods are batch drying and continuous flow drying.

Become familiar with the basic characteristics such as temperature, airflow, management and costs when selecting a grain drying method, Cloud suggests.

The satisfactory operation of any drying method depends on a well-coordinated handling system to receive the corn from the field and to transfer wet and dry corn. Proper management also requires periodic checking of moisture content with a good moisture tester.

Cloud says planning is the key to a well organized, efficient grain drying and handling system. Consider these guidelines before buying the first piece of equipment or pouring concrete.

- * It's especially important to allow for future expansion. Double your most optimistic volume five years from now, then see how your drying, handling and management practices would change.
- * Keep the system compact and work towards a fully mechanized, ready-to-go handling system. The drying method you choose will dictate the handling rates and space allocations.

add 1--plan

* Centralize all storage at one place, even if you're hauling 8 to 10 miles.

More mechanization is justified since time normally spent in knock down, moving and set-up at several locations can be used for drying grain.

A good plan is the most important part of the planning--sketch the lay-out to scale, including all parts of the system. Sketch several alternate plans before deciding on the final one. Give a lot of thought to the capacities and location of the corn handling equipment.

Drainage will influence location of the building site. Elevator and dump conveyor pits may require special drains and shallow depths.

Plan electric power requirements that may call for 200 to 400 amp service and a large transformer. Check your local power transformer on loads, rates and electrical equipment needs well in advance of buying drying and handling equipment.

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To all counties

Immediate release

CONSIDER ALL CORN MARKETING POSSIBILITIES

Some careful planning is in line if you're going to market your corn crop in the most profitable manner. Early harvest this fall should give a bonus of more corn per acre since borer damage is expected to increase ear droppage this fall.

Harvest sale of corn this fall has several advantages to the grain farmer--if the price is right. University of Minnesota extension economists suggest you consider all added costs for drying and storing, opposed to drying and selling or selling wet.

Some typical costs include an extra 4-½ cents a bushel in shrink to dry corn to 12-½ percent moisture rather than 15-½ percent for extended storage. At an interest rate of 8 percent, it will cost 7-½ cents a bushel to hold the corn in storage until July, 1971 the economists say.

So for corn which can be sold at harvest for \$1.25 per bushel, added interest and shrink cost for storage total 12 cents a bushel. Extra handling, drying, storage and loss costs will bring the figure even higher.

And, the economists warn that the seasonal price rise of corn is usually not enough to cover these costs in years when the market price is high.

If you own a drier and storage bin, calculate the variable costs of electricity, gas and your own and hired labor to see if you can cover these costs by drying on the farm rather than marketing wet corn.

If you're considering investing in a corn drying system, consider the economics of the system, along with the availability of custom dryers and moisture discounts.

Do some pencil work to see if you have repayment capacity before deciding if you have enough volume to artificially dry. Also consider whether you can find elevators or custom dryers at the time when you have shelled corn ready to be dried.

add 1--consider all

If you decide to buy a drying system, select it on the basis of capacity, cost to get capacity, management and grain handling needs. A grain dryer must function smoothly as one element of a system. It's normally a 6 to 8 year investment and should be adaptable to future expansion. Annual ownership costs are often 5 cents per bushel.

Consider the cost of drying once the unit is installed. Annual overhead at 20 percent of original investment must be added. This will vary with initial cost and number of bushels dried. Total drying cost to dry corn down 12½ percentage points to 13½ percent moisture will be about 9 cents per bushel, considering both ownership and operating costs.

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To all counties

ATT: Extension Home Economists

Immediate release

WHAT SIZE REFRIGERATOR SHOULD YOU BUY?

Are you shopping for a refrigerator and puzzled by the size to buy?

You may be impressed by the sleek look of the compacts, but are they big enough for your family?

Each family's need for refrigerator space differs, Mrs. Wanda Olson, extension household equipment specialist at the University of Minnesota, points out. How much is needed depends upon how often you shop and the number and ages of persons in your household. Consider also the type of entertaining you do. Does it usually require a great deal of refrigerator space?

One rule of thumb for estimating the total refrigerator space you may need is to start with 6-8 cubic feet for two persons and add 1 cubic foot for each additional member. If you entertain often, add 2 more cubic feet.

This total will be only a guide. Alter it according to your shopping habits, the ages of household members, and your life style.

To all counties

ATT: Extension Home Economists

Immediate release

USE GRADES WHEN SHOPPING FOR EGGS

The U. S. grade shield or the Minnesota grade shield on a carton of eggs or on the tape used to seal the carton are indicators of the quality of the eggs you're purchasing.

There are three grades for eggs. The top grade is U. S. Grade AA or Fresh Fancy Quality. The next is U. S. Grade A. U. S. Grade B is the lowest quality.

Grades AA and A are best for frying and poaching because they don't spread out very much in the pan and the yolk is firm and not easily broken, says Verna Mikesh, extension nutritionist at the University of Minnesota.

Grade B eggs are just as good to eat, but the white is thinner and the yolk may be flatter than in eggs of the higher grades.

Egg cartons may have the Minnesota grade shield rather than the USDA grade shield. However, the grades and sizes are the same for both, so look for either the Minnesota shield or the USDA shield.

Eggs also come in different sizes, but the size has nothing to do with the quality of the egg. When purchasing eggs you have two decisions to make--the grade and the size. The size isn't always printed on the grade mark, but is sometimes printed separately on the carton.

A dozen "Small" eggs must weigh at least 18 ounces. "Mediums" must weigh at least 21 ounces, "Large" eggs at least 24 ounces and "Extra Large" eggs at least 27 ounces.

Smaller eggs sell for less than the bigger ones, because you really buy them by weight just as you do meat and other foods.

Watch for bargains in the smaller sized eggs, particularly in late summer and fall when they're usually plentiful. If you make it a habit to check the usual price difference between sizes, you'll be able to spot the bargains when they're available.

-lah-

To all counties

4-H NEWS

Immediate release

4-H'ERS CAN DEVELOP THEIR OWN PROJECTS

"Do your own thing" may be the best expression of the interests and feelings of young people today. 4-H'ers are given an opportunity to do just that through what are known as self-determined projects.

They may choose a subject they are interested in which is different from or an expansion of what is offered in present 4-H projects. They are then responsible for setting their own goals, planning how to carry out those goals, doing the actual project and evaluating what they have done.

The 4-H'er must determine how much time, money, and energy he is capable of putting into the project, says County Extension Agent _______. He will do his own information gathering with guidance and encouragement from the extension agent, a project leader or other resource people from his home, church, school or community.

Jon Moren of Warren, Minnesota, has been sending up rockets for six years.

Recently he joined a 4-H Club and now is developing his own project work in model rocketry. A mouse, a grasshopper, ants, caterpillars, a beetle and an egg have all gone on a trip "out of sight" in the nose-cone of rockets Jon has sent up.

He has experimented with several different types of rockets, including the payload rocket, which has an object in the nose-cone that should come back to earth. All of Jon's payloads have returned safely except the grasshopper. An engine misfired which caused a mild explosion. When the damaged rocket was found, there was no sign of the grasshopper, even though the compartment was still intact. He has also sent up single-engine rockets and rockets with a cluster of engines.

add 1--4-H'ers can develop

Jon has learned how to use an altimeter to determine how high his rockets have gone up into the air. Depending on the size of the rocket, he has sent them up at 450 miles an hour to heights from 300 to 2350 feet.

Jon has exhibited his rockets and demonstrated the principles of rocketry at a science fair, hobby shop, county fair, and State Fair. He plans to continue this project with continued demonstrations using more of his own rockets with bigger engines.

Jon Moren's rocketry project is an example of what other 4-H'ers can do to develop projects in which they have special interests--a new direction in the 4-H program.

To all counties

Immediate release

IN BRIEF

Treat Fence Posts. Untreated wood fence posts begin to decay almost as soon as they're set in the ground, unless they're cut entirely from heartwood. You can add 20 or more years of usefulness by treating wooden posts, say University of Minnesota forestry specialists. Use either pentachlorephenol or creosote for treating.

* * * *

<u>Dig Dahlia Roots</u>. Dahlia roots should be dug after the first killing frost. Shorten the stems to about 1 inch, then turn the clumps upside down to drain and let them dry for a few hours. Then dust cut surfaces with sulphur, pack in peat moss, dry sand or wrap in newspapers, and store at 35 to 45 degrees.

* * * *

Shape Christmas Trees. The dormant season--October to April--is the best time to shear spruce and fir Christmas trees. Marvin Smith, University of Minnesota extension forestry specialist, explains that the shearing operation on spruce and fir, unlike pine, doesn't have to be timed to cause bud formation. You can get good results at any time of the year, but the dormant season is recommended since your workload is spread out and the shaping cuts are usually hidden by the next season's growth. Ask for a copy of Forestry Fact Sheet No. 2, "Shaping Conifers for Christmas Trees."

* * * *

add 1--in brief

Most Cows Feed In Winter. The greatest number of cattle are placed on feed during the fall and early winter months. The peak in the number on feed occurs generally around January 1, but sometimes on April 1 in Minnesota. The low point comes between July 1 and October 1.

* * * *

Many Fat Cattle Sold Near Year's End. The heaviest marketing of fat cattle occurs usually in the fourth quarter of the year when the largest number of cattle are placed on feed, although fat cattle are generally marketed at a more or less uniform rate throughout the year.

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To all counties

4-H NEWS

Immediate release

FILLERS FOR USE DURING 4-H WEEK OR AFTER

About 36.4 percent of 4-H members in the U. S. now live on farms. Nearly half of the members live in towns with less than 10,000 population. The remainder live in cities and the suburbs.

In Minnesota nearly two-thirds of the 4-H members live on farms.

* * * *

4-H alumni now number about 29 million.

* * * *

Nearly 4 million boys and girls 9 to 19 years of age belong to 95,000 4-H clubs in the United States and Puerto Rico. In Minnesota more than 57,000 boys and girls are members of 2,206 clubs.

* * * *

Half a million adults and young people throughout the country volunteer their time and talents to be adult and junior leaders, working with 4-H members. In Minnesota nearly 11,500 young people are junior and teen leaders. More than 5,000 Minnesota men and women help 4-H officers and councils as organizational leaders; more than 11,000 men and women serve as subject matter leaders, teaching and assisting 4-H members with their projects.

* * * *

Camping has become one of the popular 4-H programs, with interest increasing each year. Last year 7,093 young people attended 4-H camps.

* * * *

add 1--fillers for use

Photography, entomology, plant science, geology, arts and crafts, forestry, conservation, buymanship and psychology of clothing and aerospace are some of the newer projects open to 4-H members.

* * * *

Participation through television is another effective way used to involve youth. In 1967 and 1968, 30,000 boys and girls in Minnesota participated in a 4-H TV Science Club, and 15,000 were enrolled in a 4-H TV Action Club. The TV Science Series will be shown again this fall beginning during National 4-H week and continuing for 10 weeks. Consult your local station for details.

* * * *

Short-term, special interest approaches are now popular in 4-H. For example, the 4-H tractor safety program qualified about 2,000 youth for off-farm employment, and the short-term automotive program conducted in Anoka county attracted a large number of youth.

NORMAN COUNTY TEAM WINS 4-H HORSE JUDGING CONTEST

A 4-H team from Norman County received top placing in the second State 4-H Horse Judging Contest in Fergus Falls.

Members of the winning team were Barry Johnson, 19, Joanne Tjon, 17, and Cindy Syverson, 17, all members of the Home Lake 4-H Club, Twin Valley, and Vivian Novotny, 17, a member of the Lucky Leaf 4-H Club, Borup. Their coaches were Mrs. Telford Tjon and Mrs. Edwin Johnson, Twin Valley, and Mrs. Eva Erdman, Crookston.

High individual in the competition was Barry Johnson of Twin Valley.

Other winning teams in the horse judging were Isanti County, second place; Fast Otter Tail County, third place; Stevens County, fourth; Faribault County, fifth and McLeod County, sixth.

Fifteen teams of 60 4-H'ers took part in the contest.

Purpose of the annual event is to expand the opportunities for 4-H horse project members in Minnesota and to increase their knowledge in recognizing characteristics of good horses, according to Wayne Carlson, assistant state leader, 4-H and youth development.

At the present time 4,200 4-H boys and girls are enrolled in the 4-H pleasure horse project, compared with about a thousand eight years ago.

The Horse Judging Contest was sponsored by the University of Minnesota's Agricultural Extension Service and the State 4-H Advisory Committee.

Department of Information and Agricultural Journalism Institute of Agriculture University of Minnesota St. Paul 55101 Tel. 373-0710 September 29, 1970

CARCASS CONTEST WINNERS NAMED IN 4-H LIVESTOCK SHOW

The carcass contest portion of the 1970 4-H Market Livestock Show, set some new quality records, reports Charles Christians, extension livestock specialist at the University of Minnesota.

Mike Voss, a 4-H member from Hadley in Murray County, was named winner of the beef carcass contest. Young Voss's crossbred Charolais set an all-time high for the show of 54.6 percent retail cuts and yielded a loin eye area of 16.4 square inches.

The reserve champion beef carcass award went to Roger Schulte, Bird Island.

All animals entered in the 4-H Market Livestock Show are slaughtered and entered in the carcass contest. The carcass evaluation is based on the quality and type of meat that today's consumer demands.

The champion pork carcass was exhibited by Art Byron, Waseca. The reserve champion pork carcass award went to Donald Bryson, Alden. Both exhibited Hampshire hogs. Byron's champion entry yielded 48.5 percent ham and loin, while Bryson's reserve entry had 48.2 percent--both all-time high measurements for the show.

add 1--carcass winners

Winner of the champion lamb carcass was Terry Piveral, Rochester.

His champion lamb had a loineye measurement of 2.9 square inches. The reserve champion lamb carcass award went to Bradley Powers, Dawson.

Voss received \$300 for his champion beef award, while Bryon and Piveral received \$200 for their champion pork and lamb carcasses. Reserve champion winners received \$150 in beef, and \$100 in the pork and lamb divisions.

The champion awards were provided by the Armour and Hormel packing companies and by Lund Foods.

About 570 4-H members participated in the contest. Other winners received ratings of superior and excellent and received cash awards ranging from \$25 to \$5.

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122-jms-70

UNIVERSITY HAS HIGH INDIVIDUAL IN LIVESTOCK CONTEST

David Resch, a member of the University of Minnesota livestock judging team from Spirit Lake, Iowa, took top individual honors in the Jackson Invitational contest held last week.

The contest was held at Jackson, Minnesota. Six collegiate teams from South Dakota and Minnesota comprised the collegiate division.

South Dakota State University won top honors, and a team from the University of Minnesota took second place in the collegiate division. Wayne Beyer, another Minnesota team member from <u>St. Charles</u>, was sixth high individual.

Over 50 teams from Iowa, South Dakota and Minnesota participated in the 4-H and FFA division. High team was the Pipestone FFA chapter.

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jms - 70

4-H PROGRAMS SHOW CONCERN FOR ENVIRONMENT, PEOPLE

As 57,000 4-H Club members in Minnesota observe National 4-H Week Oct. 4-10, they are making plans for increased emphasis in their programs on concern for the environment and for people.

This past year they have been putting into action in many ways their theme for National 4-H Week, "We care," says Leonard Harkness, state leader, 4-H and youth development at the University of Minnesota.

Clubs in 60 counties in the state have been working to improve the appearance of their communities through the Youth for Natural Beauty program. The have picked up tons of litter along readsides, in vacant lots and along beaches, built roadside picnic areas, planted flowers and shrubs in community parks and on abandoned lots.

Special projects and programs reflect the concern of 4-H'ers for young and old alike. For example, some 260 4-H'ers from nine different clubs in Wadena County volunteer time during the year to visit residents in the Shady Lane Nursing Home in Wadena. They may shop for the senior citizens, work on arts and crafts projects with them, write letters for them or take wheelchair patients for a ride. This past summer 4-H members visited the home every day. In other counties 4-H'ers carry on similar programs with nursing homes and hospitals.

Each summer rural 4-H'ers act as hosts to youth from the cities to show them what farm life is like. This past summer more than 300 boys and girls from the inner city in Minneapolis, St. Paul and Duluth were guests of 4-H families in 12 Minnesota counties.

4-H is also helping to meet basic psychological needs of some 3,000 retarded children through 4-H programs that have been set up in 300 special education classes. Such programs are now being carried on in Ramsey, Hennepin, Dakota, St. Louis and Stearns counties and will probably be expanded further, Harkness says.

4-H is part of the continuing education program of the University of Minnesota and the U.S. Department of Agriculture.

As State 4-H Federation president, Nancy Mrnak, Glenwood, heads the organization of 57,000 members.

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123-jbn-70

LOCAL PEOPLE FOUND LEAST SENSITIVE TO LITTER PROBLEMS

Who litters more in a wilderness area, a camper from the city or someone from the local area?

People from the local area were found least sensitive to litter and littered more, according to a study completed recently by Stephen F. McCool, assistant professor in the College of Agriculture at Wisconsin State University, and Lawrence C. Merriam, Jr., professor of forestry at the University of Minnesota.

McCool interviewed 499 spokesmen for groups returning from camping trips into the Boundary Waters Canoe Area (BWCA) in northeastern Minnesota. Camper attitudes towards littering and compliance with littering regulations were studied.

Residence, type of group, and occupation were found to be the variables most related to sensitivity to litter.

Group spokesmen from the local area were found least sensitive to litter and complied least with littering regulations, according to McCool and Merriam.

Organized groups such as Boy Scouts, YMCA, and church groups noticed litter more frequently than non-organized groups such as families or groups of friends. Organized groups also carried their non-burnable trash out of the BWCA more frequently than non-organized groups.

Regardless of occupation, all people interviewed seemed equally aware of littering regulations. However, skilled craftsmen such as meat cutters, welders, pipe fitters, and carpenters were least aware of the presence of litter. Managers, professionals, and students carried non-burnable trash most often out of the BWCA.

McCool and Merriam feel that information such as this can be a valuable aid in developing campaigns aimed at reducing littering in recreation areas and in improving the public's general awareness of littering regulations.

124-bjc-70

October 1, 1970

OUTSTANDING 4-H DAIRYMEN WILL ATTEND DAIRY CONFERENCE

Nine of Minnesota's most outstanding 4-H dairymen will attend the Sixteenth Annual 4-H Dairy Conference in Madison, Wisconsin, Oct. 3-5.

They are Charles Albrecht, McLeod County; Marsha Dahlgren, Roseau County; Gayle Degler, Carver County; Rod Haefs, Sibley County; Leslie Hanson, Steele County; Gary Hutton, Rice County; Bruce Rydeen, Washington County; Donald Slininger, Norman County; and Steve Weinrich, Wabasha County.

Chaperones are Dennis Seefeldt, Washington county agent, and Dale Smith, Carver county agent.

The delegates were chosen on their knowledge of dairy management practices. Fach 4-H'er was recommended by his county agent and interviewed at the State Fair by extension dairy specialists.

For the first time, the Dairy Conference is being held in conjunction with the 4th World Dairy Expo in Madison. The conference will offer the 4-H'ers many new learning experiences and insights into the dairy industry through speeches, clinics and tours. 4-H'ers will tour the American Breeder's service facilities, Deforest, Wis., and the nutritional research, genetics and dairy foods facilities at the University of Wisconsin, Madison. They will also watch the Guernsey, Jersey and Ayshire judging at the World Dairy Expo.

The delegates will return to Minnesota on Tuesday, Oct. 6, and attend a luncheon in their honor at the University of Minnesota, St. Paul.

Sponsors of the program are the American Dairy Association of Minnesota, Kraftco Corporation, Mid-American Dairymen Inc., Midwest Breeders Cooperative, Minnesota Federation of Production Credit Associations and Minnesota Valley Breeders.

minimize the chance of an accident.

To all counties

Immediate release

FARM ACCIDENTS HIT IN PRODUCTIVE YEARS

Accidents claimed more than 7,000 lives on U. S. farms last year, reports
county extension agent.
Another 600,000 farm people were injured in farm accidents. And losses to farm
residents amounted to \$2 billion.
But statistics don't tell the whole story,says. More than
half of the farm accident victims were less than 45 years old. In terms of
productivity and years trimmed from life expectancy, the loss is even more tragic.
While men are the most frequent victims, farm accidents spare none,
adds. A Michigan study shows that male family members have the greatest exposure to
farm work accidentsthey do 67 percent of the work done on farms. Hired male
workers have the highest work injury ratenearly 35 injuries for every million
manhours worked.
Females accounted for only one-fifth of the hours worked in the Michigan study.
And females had significantly lower work injury rates, probably due to differences in
the types of work performed.
Even though safety information and protective equipment are readily available
to farm people, accidents continue to pose a serious problem,points out.
But it's possible to reduce the threat to life, limb and financial solvency.
Make your homes and farms less hazardous by good planning and good housekeeping.
Use machinery guards on the job and wear protective equipment designed to save hands,
feet, eyes and head from injury. And always work, play and drive in ways that

To all counties

Immediate release

DFL, GOP STATE CHAIRMEN TO DISCUSS ISSUES

Political party state chairmen will discuss 1970 campaign issues in two separate programs to be aired on educational television stations throughout Minnesota starting Tuesday, October 20.

"Perspective on the 70's" will host Richard Moe, Democratic Farmer-Labor Party chairman, October 20, and George Thiss, Republican Party chairman, October 27.

The half-hour programs will be telecast at 7:30 p.m. on KTCA, Channel 2, Twin Cities; WDSE, Channel 8, Duluth; KWCM, Channel 10, Appleton; and KFME, Channel 13, Fargo-Moorhead.

Program moderator and producer is Professor John S. Hoyt, Jr., program leader for Special Project Development and Coordination for the University of Minnesota's Agricultural Extension Service.

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To all counties

Immediate release

IN BRIEF

Moldy Corn? It's dangerous to feed moldy corn to swine breeding stock. Moldy corn is most dangerous for bred sows, and small pigs rank next on the danger list. It's least dangerous for older market hogs. If your corn contains mold, try to secure sound corn at least for the breeding herd. Or, consider buying a substitute grain such as barley, wheat or oats for bred sows.

* * * *

Pick Ear Corn at 26-28 Percent Moisture. Start picking ear corn for crib storage when the kernel moisture is about 26 to 28 percent moisture. Good snapping rolls, proper adjustment of the picker and correct ground speed are important if you want a clean job of ear corn harvesting, says John True, extension agricultural engineer at the University of Minnesota.

* * * *

Minnesota Favors Smaller Feed Lots. Despite a trend towards large feed lots, cattle feeding in Minnesota is still done on small to medium-sized farms. There were only 32 feed lots with a capacity of 1,000 or more head in the state in 1969 and one of these had a capacity of more than 8,000 head.

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Beef Cow Totals in State Increase. The number of beef cows in Minnesota has increased almost five times since 1940 when there were 93,000 head. There are now about 545,000 head. From 1960 to 1970, beef cows showed a 210,000-head increase representing an advance of more than 60 percent, according to the U. S. and Minnesota departments of agriculture.

To all counties

ATT: Extension Home Economists

Immediate release

CONSIDER OVEN CLEANING FEATURE WHEN BUYING RANGE

Buying a new range?

Automatic oven cleaning is one time-saving feature you may want to consider, says Mrs. Wanda Olson, extension specialist in household equipment at the University of Minnesota.

Two main types are available: the high-temperature or pyrolytic self-cleaning method and the continuous clean panel or catalytic method.

The high-temperature cleaning method is available on electric ranges of various price levels, but generally on only the more expensive gas ranges. This method brings about disintegration of soil by heating the oven to temperatures of 800° or 900°F. During the cleaning process the oven is closed and locked. Extra insulation is provided in the oven lining to keep the outside of the range as cool as when you are baking. As the oven completes the cleaning process, which takes from 2 to 3 hours, the soil is reduced to a little ash. Any smoke that develops is removed by a built-in smoke eliminator. This type of self-cleaning oven adds about \$60 to the cost of the range.

In the continuous clean panel type, a chemical is fused with or baked into the porcelain oven lining, always on the sides and sometimes on the top and bottom of the oven also. With this method, the soil burns off slowly at baking temperatures of 350° and above. The catalytic method of oven cleaning which adds about \$30 to \$40 to the cost of the range, is available in gas ranges at many price levels and in some electric ranges. Optional accessory kits with the continuous clean panels are available for many models.

In deciding whether to put the extra money into a self-cleaning oven, consider the amount of broiling, baking and roasting you do in the oven and the time you might be spending in keeping your oven clean.

UM NAMES ASSISTANT DEAN OF AGRICULTURE

John A. Goodding has been named assistant dean of the University of Minnesota College of Agriculture, according to Sherwood O. Berg, dean of the Institute of Agriculture.

Goodding served nearly the past 10 years as assistant director of resident instruction for the University's former College of Agriculture, Forestry and Home Economics.

In June this year the College was reorganized into three separate units known as a College of Agriculture, a School of Forestry and a School of Home Economics. H.J. Sloan is serving as acting dean of the College of Agriculture.

Goodding came to the University in January of 1961 from the University of Nebraska, Lincoln, where he had been assistant professor of agronomy.

A native of Lincoln, Goodding received a B.S. degree from the University of Nebraska, an M.S. degree from Kansas State University, and a Ph.D. degree from Washington State University.

FUTURE FARM CENTERS WILL OFFER ONE-STOP SHOPPING

Some farm service centers of the future for Minnesota farmers are likely to resemble, in many ways, today's suburban shopping centers, according to agricultural economists at the University of Minnesota.

In a recent report, Karl Meilke, Wilbur Maki and Dale Dahl explain that one-stop shopping convenience will be the main advantage of future farm service centers.

Although no farm shopping centers of this type exist in Minnesota now, they are expected. They will no doubt include an oil company, animal health unit, feed and grain company, financial institution, livestock marketing and management company, lumberyard, machinery company and possibly a discount grocery store.

Other farm service centers described by the economists are the cooperative and the private farm service centers. Cooperative centers frequently carry more than one product while independent firms usually rely on one product, the economists say.

Cooperative centers keep capital costs low by having a single manager and one central business office and store. Labor costs are reduced by shifting labor from one product line to another as seasonal demands change. Profits are calculated over the entire enterprise so that losses on one product are offset by profits on another. So the cooperative can offer an unprofitable service which members cannot obtain elsewhere.

add 1 -- future farm.

Private centers carrying a single product can often undersell the multiproduct firm. Average product costs decrease as sales expand, enabling the single product center to undersell the multi-product firm. The single product center can also compete because it does not provide unprofitable services such as the cooperative.

The farmer might think that vigorous price competition by new farm service centers assures him of the lowest possible prices. However, farm service centers seldom engage in direct price competition, the economist explain.

New service centers are reluctant to cut prices because their newness is enough to attract business. However, all service centers frequently offer a disguised price decrease by offering more services.

Deliveries will not be made any quicker by the new centers than present well-managed centers.

New farm service centers are successful because of the recent demands for fertilizers, insecticides, mixed feeds and other products. Fertilizer use has tripled since 1950 and pesticide use has doubled. Demand for farm service products is expected to increase 50 percent by 1980.

Manufacturers also build farm service centers to attract business from established firms and then capitalize on increased product demands, the economists say. The centers also enable the manufacturer to forecast sales and selling markets.

TV DISCUSSION OF AG EXTENSION WORK SET FOR TUESDAY

The responsibilities and challenges facing the University of Minnesota's Agricultural Extension Service will be discussed on the television program "Perspective on the 70's" at 7:30 p.m. Tuesday, Oct. 13.

The half-hour program will be seen on KTCA, Channel 2,
Twin Cities; WDSE, Channel 8, Duluth; KWCM, Channel 10, Appleton;
and KFME, Channel 13, Fargo-Moorhead.

Appearing on the program will be Extension Service Director
Roland H. Abraham, Gene M. Lear, associate administrator, extension
service, U.S. Department of Agriculture, and Luther P. Gerlach, associate
professor of anthropology at the University.

"Extension Confronts the 70's" is the title of this segment of the weekly television series, "Perspective on the 70's" Program moderator and producer is Professor John S. Hoyt Jr., program leader for Special Project Development and Coordination for the University's Agricultural Extension Service.

CAREER OPPORTUNITIES FEATURED ON HOME ECONOMICS DAY AT U

Minnesota high school students interested in learning about the variety of careers in home economics are invited to attend the annual Home Economics Day on the University of Minnesota's St. Paul Campus Oct. 22 or 23.

Four identical half-day sessions will feature slide presentations and campus tours to give prospective home economics students a picture of college life as well as an introduction to the many possibilities for careers in home economics. Visitors will have a tour of the home economics building, McNeal Hall, and will see classes in session. They will have an opportunity to consult with faculty members and will be given a packet of course and career materials.

High school students interested in attending should register immediately with their high school home economics teacher or send name and address directly to:

H.E. Day Committee, c/o Mrs. Sue Reitan School of Home Economics University of Minnesota St. Paul, Minn. 55101

Registration will be accepted until Oct. 14. In each case, give first, second and third choice of the session preferred: Thursday or Friday morning, Oct. 22 or 23, 8:45 a.m. - 12 noon, or Thursday afternoon or Friday afternoon, 12:45 to 4 p.m. Registrants will receive notification of the session for which they are accepted.

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SOCIETY HONORS TWO UM PLANT PATHOLOGY PROFESSORS

Two professors in the University of Minnesota's Department of Plant Pathology were honored Wednesday night (Oct 7) at the annual meeting of the American Phytopathological Society at Hot Springs, Ark.

Professor Clyde M. Christensen was named a Fellow of the Society. The honor is accorded annually to a small percentage of the organization's membership in recognition of meritorious contributions to the plant pathology profession and service to the Society.

Professor Thor Kommedahl was named president of the Society at the annual banquet. Kommedahl served as editor-in-chief of the Phytopathology Journal for four years.

About 12 staff members and 12 graduate students from the University's Department of Plant Pathology attended the annual meeting. Eleven research papers were presented by the Minnesota group.

Christensen has taught for 30 years on the St. Paul Campus. Reared in North Dakota, he received his B.S. degree from the University of Minnesota in 1929 and continued graduate work at the University after a year's study in Germany. He was granted his M.S. degree in 1930 and his Ph.D. degree in 1937, both from the University of Minnesota.

He is best known for his book, "Molds and Man," which is widely used both in the United States and abroad.

Kommedahl has been on the University staff since 1946. He received his Ph.D. degree from the University in 1951. He is the author of several papers published in technical and professional journals and is a member of several professional organizations.

U HOME EC-CONSUMER INFORMATION SERVICE EXPANDS

What is the most durable carpet fiber for a family room?

How much should I expect to pay for food for a family of four?

Is it possible to remove stains from crayon that has melted and spotted clothes in the dryer?

I used my grandmother's favorite pickle recipe. Why didn't the jars seal?

These were among nearly 6,000 questions received by the University of Minnesota's Home Economics-Consumer Information Answering Service on the St. Paul Campus in July, August and September this year. Of these, 2,375 were related to food preservation.

The service was established in response to the thousands of telephone calls and letters directed to the University each year for home economics and other consumer information. At first the University's Agricultural Extension Service employed graduate students part-time to answer telephone calls. Then in January, 1965, Mrs. Beverly Lundgren was appointed assistant extension specialist and instructor in home economics to take charge of the answering service full-time. Because of the increasing volume of requests in the succeeding five years, a second specialist, Mrs. Sheryl Nefstead, was added to the staff on August 15 this year.

add 1--information service expands

The consumer service is one facet of the Agricultural Extension Service

Home Economics-Family Living Program which involves a broad educational

effort in family development, health, housing, consumer competence and

community life. The Home Economics-Consumer Information Answering Service

serves the needs of people who may be unable to take part in meetings, workshops

or seminars which are a part of the total Home Economics-Family Living

Program.

In addition to answering questions by telephone, during the year the home economists in the consumer service write hundreds of letters supplying information and send several thousand extension publications to consumers.

Questions about food top all others, the two home economists report.

More than half of all calls each year are related to food safety, food preparation, food preservation and nutrition.

Home furnishing ranks second to food in the frequency of questions asked.

Last year men and women made some 2,000 calls asking for information on selection, care and restoration of home furnishings and on color in home decorating.

Questions on clothing, household equipment and home management are the next most frequent categories, in that order. More than 1,000 queries were made last year regarding choice, construction, care of clothing and grooming.

Selection and care of household equipment and appliances, kitchen planning and laundry problems account for more than 700 requests for information. Questions about budgeting, time and energy and other home management problems total about 400 a year.

Homemakers comprise a large proportion of the consumers who telephone for help in solving problems. Often they call when some crisis has arisen in the household and they need advice immediately. But home economists in business are frequent callers, too, as are men from business and industry. Newspaper columnists, radio and television personnel often call for some specific bit of information. County extension home economists and extension agents consult the the service, and even students use this source of knowledge when working on school projects and papers.

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To all counties

Immediate Release

HIGHER EGG PRODUCTION COSTS AHEAD

Egg production costs for the year ahead are expected to be at least 2 cents a dozen higher than the same period earlier, according to the latest Poultry Survey Committee Report. Most of this increase will be in higher feed costs.

Egg prices for the next 12 months beginning October 1 are expected to average about 11 cents below the preceding 12 months. However, producers must remember that during the period a year earlier, egg prices were at an extremely high level, says Melvin L. Hamre, extension poultry specialist at the University of Minnesota.

The hatch of egg-type chicks in the first half of 1971 is expected to be about 5 percent below the same months of 1970. The nation's laying flock is likely to be about 2 percent above the level of a year earlier on January 1. The flock size is expected to remain above year earlier levels, at least through the third quarter of 1971 unless a concerted effort is taken to reduce the size of the laying flock.

The lower income per hen, along with higher production costs, will require producers to pay attention to good management practices to maximize the number of salable eggs per bird. Close attention should also be paid to costs of feed ingredients to take advantage of any ingredient substitution that may be possible to reduce feed costs, Hamre says.

To all counties

Immediate Release

UNIFORM SAMPLE AREAS NEEDED FOR SOIL TEST

Uniform sample areas within each field are needed if you're to get an accurate soil sample.

University of Minnesota soil scientists suggest dividing each field into uniform areas with the help of a soil survey map. If you don't have the map, look carefully for differences in slope, erosion, crop growth and yield.

The soil scientists say the soil in each area should have the same color and texture, cropping history and fertilizer, lime and manure treatments. One sample should not represent more than 20 acres of level, uniform fields or 5 acres on hilly or rolling land.

As farms and fields get larger, many farmers face the problem of more soil types within a field. Oftentimes soil test results come back with different test results from various locations in one field.

If you're faced with this situation, the best procedure is to sample the soil by type and then treat the different areas separately when possible. If the various areas can't be treated separately, then apply fertilizer to meet the needs of the major portion of the field.

To all counties

Immediate release

IN BRIEF

Clean Spraying Equipment. A good cleaning job on your spraying equipment this fall may cut repair costs and make it easier to prepare for spraying next spring.

Use rubber gloves and boots when cleaning and flushing sprayers. Prevent water used for cleaning or flushing from puddling or flowing into streams, ponds or ditches.

Drain all the spray material out of the machine and flush with plain water. Then add one ounce of household ammonia per gallon of water, and rinse again to neutralize the pesticide residues.

Disassemble nozzles and store parts dry or immersed in fuel oil. Drain the pump and tank, and apply a coat of rust inhibitor to the pump and tank, if needed. Store spraying equipment (especially the boom) in an area where it won't be damaged by other machinery. Store hoses to prevent kinking by either hanging them straight, or coiling them inside a 5-gallon pail.

* * * *

Feed Calves Once Daily. You may be able to save some time and labor by feeding thrifty dairy calves milk or liquid milk replacer only once a day instead of twice daily. But Jesse Williams, University of Minnesota dairy scientists, cautions that plenty of water along with a good, dry calf starter is essential for success with such a feeding program. Recent research indicates that healthy, thrifty calves make satisfactory growth under once-a-day feeding provided they have adequate housing and good management. Williams says a few Minnesota dairymen have had problems with this feeding program because calves didn't receive enough water.

* * * *

add 1--in brief

<u>Don't Burn Leaves</u>. There's another reason for <u>not</u> burning tree leaves, aside from the air pollution problem. Leaves are an important source of organic matter for the garden soil, say University of Minnesota horticulturists.

No garden soil can be kept in top condition without frequent additions of organic matter. The horticulturists recommend making a compost this fall and using the organic matter for preparing your garden next spring. Or, you can spade the leaves into open garden areas this fall or use them as mulch in shrub and perennial plantings.

* * * *

Protect Roses. Late October is the time to prepare your roses for winter. You can provide good protection by packing tree leaves around and over the bushes to a depth of 3 feet. Less leaf cover will be needed if the plants are first "tipped" and held down to the soil surface. To tip the plant, remove a spadeful of soil from one side of the plant stem and upper roots. Then gently tip the plant over to the ground by bending the flexible roots which are just below ground level. Hold the plant in position with a spadeful of soil, then cover with 18 inches of leaf or hay mulch.

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To all counties

ATT: EXTENSION HOME ECONOMISTS

Immediate Release

SERVE VEGETABLES FOR FLAVOR, COLOR

Colorful fresh vegetables, now at their peak of goodness and attractively priced, can add just the right spark to family meals, says County Extension Home Economist _______.

Furthermore, they are important for good nutrition.

Choose dark green and deep orange-colored vegetables for vitamin A. Especially high in quality now are broccoli and winter squash. Carrots and sweet potatoes are other excellent sources of vitamin A. One serving of a dark green or yellow vegetable is recommended at least every other day. For vitamin C, select tomatoes, green peppers, broccoli and members of the cabbage family.

Besides vitamins A and C, vegetables also provide B vitamins, calcium and iron in the diet and contribute needed bulk.

Vegetables are most appetizing and attractive if they are cooked as quickly as possible, says Grace Brill, extension nutritionist at the University of Minnesota. Cook all vegetables only until they are tender and then serve them immediately, since delay causes loss of vitamin C as well as color and flavor. Broccoli will cook more quickly if the stalks are split.

Serve vegetables in a variety of ways. For a buttery but slightly different flavor, use melted butter heated to a golden brown. Add lemon juice to the butter and serve over broccoli. Onion, garlic, celery or lemon-pepper seasonings may be used instead of salt. Or try some of the special sauces now on the market for vegetables.

Weight watchers will find vegetables life savers since most of them are low in calories but high in flavor, bulk and texture.

To all counties

ATT: Extension Home Economists

Immediate release

BUY SHOES FOR CHILDREN WITH CARE

Money spent for children's shoes may be the largest item in a growing family's clothing budget but also the most important.

Young children need good shoes--shoes that are comfortable and allow for growth and development of the foot, points out Thelma Baierl, extension clothing specialist at the University of Minnesota.

She gives some guides to parents who are buying shoes for the children:

- . Select medium-quality shoes. Buy one pair at a time so the shoes will be worn out before they are outgrown.
 - . Don't buy orthopedic shoes and gadgets except on the advice of a doctor.
- . Always take the child along to have the shoes fitted. Have him wear the type of sock he will be using. Then fit the shoes on both feet over these socks. The length of the shoe should be 1 inch longer than the longest toe.
- . Be sure there are no rough spots or heavy or open seams inside the shoes to cause foot trouble.
 - . Ask the merchant to order the correct size or style if it is not in stock.
- . Buy from a store that has a variety of lengths, widths and styles of children's shoes and where sales persons are trained to fit children's shoes.

To all counties
4-H NEWS

Immediate Release

HORSEMANSHIP TAKES SKILL

Have you ever come out of a stock seat equitation class wondering why the other guy placed and you didn't?

Perhaps some of your mistakes lie in these areas: tack, posture, hands, riding control or mounting, says Robert Jordan, professor of animal science at the University of Minnesota.

Before you enter the ring, make sure your tack and horse are spotless. Some judges may ask you to identify the various parts of your tack and horse, so be familiar with them. Your clothing should fit appropriately since loose fitting clothes make you look round shouldered.

Maybe you lost because you slumped in the saddle. Always sit extremely straight, but flexible enough to give with the horse's movements. Your legs should be directly beneath you with only a slight bend to the knee. Your feet should be pointing out very slightly with your heels down, pointing at the rear hocks.

Your hand position might have lost you your blue ribbon. Ride with light contact on the horse's mouth. Hold the reins in your left hand, unless you are left handed; then you will use your right hand and hang the lariat on the left side of your horse. The reins pass through the palm of your hand which is held slightly above the saddle horn. Hold your free hand at belt height with the fingers slightly curled.

Is your general riding control as good as the first place winner? Alert the horse to a change of gait with gentle leg and hand cues. Prepare your body position for stops and always sit with your shoulders square. Remember to use leg pressure and short pulls on the reins when backing the horse.

add 1--horsemanship takes skill

Did you dismount and mount smoothly and gracefully? When dismounting, make sure you don't hit your horse's rump with your foot. Fold your reins neatly when facing the judge. Check the girth when mounting and make certain your horse doesn't move when you mount. Check your reins to be sure they're straight. Position yourself squarely in the saddle.

Finally, always watch the judge during the class. When he isn't looking in your direction, make adjustments in your saddle position, rein length or horse's gait. Studying the riding style of someone who consistently wins will help you develop a polished style of your own.

For further information, ask for "Horses and Horsemanship" at the local county extension office.

SCIENTISTS RECOMMEND STANDARDS OF SOIL QUALITY

Two University of Minnesota soil scientists have proposed that enforceable standards of soil quality be set to combat the threat of soil pollution.

Standards of soil quality could be established for soils much as standards have been established for water quality, they say. Background information needs to be collected on selected soils so that permissible levels of pollutants can be established.

Pesticides, organic matter, erosion, and nutrients are all possible soil pollutants, according to W.P. Martin and R.S. Adams, who presented the report Tuesday (Oct. 13) at the nineteenth Annual Meeting of the Agricultural Research Institute in Arlington, Virginia.

DDT, for example, when sprayed on an apple tree will disappear in seven days, while the same DDT in the soil may take seven years for half to disappear.

While DDT can now only be detected in incredibly small amounts of parts per billion, it is still damaging to some species of fish and birds. DDT readily combines with layers of fat in the wildlife where it will not decompose. Eventually, the DDT can build up to a harmful level for certain wildlife.

Pollution from organic matter in Minnesota results from the 14 million chickens and turkeys, four million cattle, 1-1/2 million dairy cows, 2-1/2 million hogs and 3/4 million sheep. These farm animals present the problem of disposing of wastes equal to 30 million people.

add 1--scientists recommend

The problem of waste disposal for farm animals has increased since the farmer has started concentrating animals in feedlot operations. Farmers now find that commercial fertilizers are cheaper than gathering and spreading manure. Labor costs of handling manure are high and the costs now far outweigh returns in soil fertility.

Soil itself can be a contaminant when it is washed or blown into lakes or streams, the scientists say. Some 30 million tons of dust are blown into the air over the U.S. each year. The equivalent of four million acres of good topsoil six inches deep is eroded into the lakes and streams, they say. However, recommended control measures can reduce erosion by as much as 75 percent.

Among the largest contributors to erosion are urban and industrial sites and highways in construction, they explain.

Plant nutrients in eroded soil along with water pollutants can increase algal blooms. Nitrates in shallow wells can be harmful to children.

Soil pollution problems have happened by necessity, the scientists say.

The farmer has had to use methods of higher production such as feedlots,

pesticides, and fertilizers to produce enough food for the growing U.S. population.

Contaminants are bound to reach the air, land, and waterways. But even with control methods, levels of exposure must be determined which are minimally hazardous to plants, animals, and man.

MORE CITY DWELLERS BUYING FOREST LAND

Urban people who own forest land will have an opportunity to learn about different land management options at three meetings scheduled throughout the state in late October.

The meetings are scheduled for Monday, October 26 in the 4-H buildings, the Olmsted County fairgrounds, Rochester; Wednesday, October 28 at the Student Center, University of Minnesota, St. Paul Campus; and Thursday, October 29 at the Extension Center, UMD campus, 2205 E 5th St., Duluth. All meetings run from 7:30 to 9:30 p.m.

The purpose of the meetings is to first help landowners choose among different land use objectives. Then speakers will focus on topics such as to increase game population, the Christmas tree enterprise and tree farming.

There's a major shift from rural to urban ownership of forest lands, says Marvin Smith, University of Minnesota extension forester. For example, about 3 1/2 million acres in Minnesota are owned by absentee owners. In Pine County, 42 percent of the privately owned land was held by absentee owners in 1967, and nearly 60 percent of them resided in the Twin Cities metropolitan area. And in St. Louis County, there are about 8,000 absentee landowners.

add 1--more city

Guest speakers will include Frank Irving, a professor from the University of Minnesota's School of Forestry; Clyde Hegman, director of the Minnesota Christmas Tree Growers' Association and Lansin Hamilton, manager of the Northern Timber Company, Aitkin.

Co-chairmen of the meetings are Smith and Emil Kukachka, from the Minnesota Conservation Department.

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138-jms-70

4-H'ERS TO NATIONAL SAFETY CONGRESS

Seven outstanding Minnesota 4-H members have won trips to the National Safety Congress in Chicago October 25-28 as a result of their work in promoting safety.

They are Katherine Compart, Nicollet; Maribeth Hollerich, Good
Thunder; Barbara Lunde, Austin; Mark Kosloske, St. Cloud; Karen J. Picha,
Montgomery; Mary Arnson, Shevlin; and Harvey Syltie, Porter.

More than 10,000 delegates will participate in the discussions, tours and recreation at the Safety Congress. A purpose of the Congress is to instill a desire among youth to be safety conscious at all times and to pass safety information on to others.

Minnesota delegates have served as safety project leaders in their clubs and stressed safety in their homes and communities. Some of the their safety activities include selling fire extinguishers, Slow Moving Vechicle signs and first-aid kits for snowmobiles, placing No Smoking signs in barns and distributing wallet-size cards on artificial respiration. They have learned water safety, gun laws, bicycle safety and artificial respiration techniques. Many delegates have taught others these skills through demonstrations and talks about safety.

Robert Tervola, Clearwater county extension agent, Mrs. Tervola, and Frank Mattos, 4-H Safety Project chairman, Carlton County, are official chaperones.

The state trips are sponsored by Midland Cooperatives and the Mutual Service Life Insurance Company.

137-11h-70

Immediate Release

RECOGNIZE CHANGES IN SOCIETY, UM VP URGES AG EXTENSION MEET

Society is "losing its harsher penalities for both young and old and it is high time this was recognized," a University of Minnesota vice president said Wednesday afternoon (Oct. 14) at the Minnesota Agricultural Extension Service Annual Conference in St. Paul.

Paul H. Cashman, vice president for student affairs, made the statement in response to the charge made popular by several politicians this year
that "universities are permissive." He spoke during the third session of the
four-day meeting held in the St. Paul Hotel.

Cashman responded to the charge that "we live today in a permissive society, one in which speeding drivers, drunkenness, fornication in local motels, petty theft, economic fanaticism and other similar activites are not uniformly met by strong law enforcement."

"In any event," he said, "the parent often reveals his own lack of willingness to be 'nonpermissive'... When the parents of underage University students were asked to choose for their dormitory-bound young people from a series of options regarding living situations, more than three-fourths of the parents chose the most permissive option of open visiting in the residence hall."

add 1--recognize changes

Charges made in connection with the conflict of youth and the community "emerge anew every time a student is caught drinking, a businessman raises local rents in the perimeter of the campus or the University fails to respond to a particular demand by radicals. What is needed is patience, information, a climate of reasoned discourse and a high degree of objectivity. What one often gets is hostility, slogans, a climate of irrationality and a high degree of bias," the University vice president said.

Signs of a reactive environment listed by Cashman included "rhetorical overkill," "motivational attack," "sweeping generalizations" and "threat of force."

'These are but a few of the signs of a reactive society. We are too far down the line toward that society now and the transition must be stopped, "he said.

Many factors are often cited as to what "led us to this state of affairs" including "affluence, the Vietnam war, busy and non-involved parents, the rigidity of mass society, the automobile and the television set, changes in the educational system, permissive parents, the more rigorous interpretation of the constitutional rights of the young, hypocrisy in high places, over simplification of complex social issues by the young, breakdown in support of law enforcement and a host of other factors.

"Both young people and adults must take initiative in building new relationships and new contacts. This must in fact become a high priority of both groups if understanding is to again develop," he added.

To all counties

Immediate release

PEDIGREE PREDICTIONS MORE ACCURATE FOR GROUPS OF CATTLE

Dairy farmers who use pedigrees on individual animals will improve their odds for success, but should not be surprised at unexpected results--both good and bad.

Pedigree evaluations are risky and usually miss their mark when applied to individuals. However, pedigrees are quite accurate when applied to groups of animals, says Joe Conlin, University of Minnesota extension dairyman.

Conlin says pedigrees are very useful when they're used to select young sires to sample, or to evaluate alternative mating options. But the cow's own records or a progeny test on a bull tell much more than the pedigree.

The animal's sire should receive the greatest emphasis if he is progeny tested.

The higher the repeatability value of the sire's "Predicted Difference," the more emphasis he should receive.

The highest probability for success is obtained by selecting sons and daughters of high Predicted Difference sires that have a high repeatability. Using sons of unproven or low repeatability sires is a poor risk, Conlin says.

The dam is the second most important relative because of her close relationship.

The dam's own production records are the primary basis for her transmitting ability.

To all counties

Immediate release

BEEF CATTLE REQUIRE FALL LOUSE TREATMENT

Early fall is the best time to treat beef animals for lice. Louse populations vary widely from animal to animal, but it's an unusual herd that doesn't have a louse carrier or two, says David Noetzel, University of Minnesota entomologist.

Don't wait for severe louse infestations to show up during the winter. Fitting lice control into your normal fall management program will save both time and money, Noetzel says.

A number of chemicals will provide good louse control. These include Co-Ral, Korlan, Delnav, malathion, methoxychlor and toxaphene. And high pressure hydraulic spraying for grub control with Co-Ral, Tiguvon, Ruelene or Neguvon will also provide excellent louse control. Make sure each animal is thoroughly covered with the spray.

For additional information, ask your county extension agent for a copy of Entomology Fact Sheet No. 5, "Controlling Cattle Lice." It's also available from the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

#

To all counties

Immediate release

TEST WATER FOR IRON

If you have iron in your drinking water, it may take some "detective" work to find out where it's coming from.

Water testing may be necessary to determine whether the iron occurs naturally in the ferrous or ferric state, or whether it comes from the corrosion of pipes or other parts of the plumbing system.

Check with a water testing laboratory on the proper procedure to sample water for an iron test, suggest University of Minnesota agricultural engineers. Usually the water sample should be taken at the faucet closest to the pump. Allow the water to run for at least 10 minutes before sampling—this assures fresh water that hasn't been exposed to the air.

Don't sample water that has gone through the water heater or a water treatment unit such as a softener, the engineers caution.

Iron in water is a complex matter, and no definite rules can be made which apply to all situations. Treatment for iron in water varies with its concentration and the water conditioning equipment already in use.

For more information, ask your county extension agent for a copy of the University of Minnesota, Agricultural Extension Service Publication M-154, "Iron in Drinking Water."

To all counties

Immediate release

IN BRIEF

Keep Fireplace Wood Out of House. If you're stocking up on fireplace wood this fall, store it in the garage or tool shed instead of the basement. This will help keep wood infesting insects out of the house, say University of Minnesota entomologists

The specialists say fireplace wood is often either from dead or dying trees, or it's stacked for a long time at the place of sale. Such wood is apt to have insects under the bark or in the wood. Bringing in only enough wood for one or two evenings should also help keep the insects out.

* * * *

New Rye Publication Available. University of Minnesota agronomists have just published a new publication on winter rye. It's entitled "Winter Rye--Rate of Sowing, Row Spacing, Varietal Mixtures and Crosses." Copies are available from the County Extension Office or the Bulletin Room, University of Minnesota, St. Paul, Minnesota, 55101. Ask for Miscellaneous Report 100--1970.

* * * *

Test Well Water. Test your well water periodically for disease-causing bacteria. Proper chlorination will reduce the bacterial population, but the source of contamination must be removed to assure continued supplies of safe water. This may mean drilling a new well to a deeper water bearing formation and sealing off the upper contaminated formations. For more information, ask your county extension agent for a copy of Agricultural Engineering Fact Sheet No. 15, "Disinfection of Water Systems."

* * * *

<u>Water Problems</u>. Bacteria control, iron removal and water softening are separate problems, but they must be considered together. The solution to one problem may affect the operation of other water conditioning equipment. For additional information ask for the University of Minnesota publications M-154, "Iron in Drinking Water," and Agricultural Engineering Fact Sheet No. 15, "Disinfection of Water Systems."

To all counties

ATT: Extension Home Economists

Immediate release

SEWING AT HOME BOTH THRIFTY AND SATISFYING

As costs of clothing go up, young mothers may wonder whether they should use their time to sew for their families or buy ready-mades.

Many mothers are already finding they can save precious dollars by making at least some of their youngsters' back-to-school wardrobes. A mother who sews can save from 35 to 60 percent on most garments she makes, according to Thelma Baierl, extension clothing specialist at the University of Minnesota. She explains that clothing prices increased about 6 percent a year for the last three years, and they continue to climb. It now costs a family about \$4,350 to clothe a child from birth to age 18.

Although economy is a strong incentive for mothers to sew, they give other reasons for sewing at home:

- . Clothing is of better quality.
- . The clothing is more satisfactory for the child hard to fit.
- . More individuality is possible in clothing.

And one of the more compelling reasons for sewing at home, according to many mothers, is that it is a personally satisfying leisure-time activity.

youthful snowmobile enthusiasts.

To all counties

4-H NEWS

Immediate release

SNOWMOBILE WORKSHOP WILL TRAIN ADULTS

Adults interested in becoming certified snowmobiling instructors for 14 to 18year-old youth in their area may attend a workshop which will qualify them as certified instructors.

4-H adult leaders are especially urged to become certified instructors because the 4-H snowmobile project has greatly increased during the past three years, according to County Agent _____.

a snowmobile. Many adults will be needed in order to certify the large number of

The 3-hour instructor workshop will cover the parts of a snowmobile, snowmobile laws and regulations, maintenance, operation, clothing, equipment, emergencies and transporting snowmobiles.

For further information, contact (NAME), (ADDRESS) your local conservation officer.

Note To County Agents: contact your local conservation officer to learn the time and place of the workshops in your area and the name of the instructor. Be sure to include this information in your story.

To all counties
4-H NEWS
Immediate release

EATING WISELY MAKES A MORE BEAUTIFUL YOU

Many teenage girls try to create good looks by using makeup, hair spray and special clothes. They often forget that honest good looks--attractive hair, skin, eyes and healthy teeth and gums for a beautiful smile--come from the foods you choose, says Mary Darling, extension nutritionist at the University of Minnesota.

If your hair has natural sheen and springiness, it's much easier to fix it attractively. The condition of your hair is influenced by the food you eat.

Unblemished skin with a healthy glow may need little makeup to be attractive. Attractive skin comes partly from proper food choice.

A slender figure also comes from wise eating habits. And the clothing styles available to a slender teen are almost limitless.

But it's not only your physical appearance that suffers from a poor diet; your ability to work and play is hampered, too. Proper eating habits as a teen build up a health "edge" for later years when rigorous demands are made on your body.

Have you ever wondered why it was so hard to pay attention in class late in the morning of a day when you skipped breakfast? Many girls make the mistake of skipping breakfast hoping to lose extra pounds. Don't make this mistake. You need breakfast now and you will need it at the age of 90. Your body needs fuel to start the day.

Learn the four main food groups for daily selection of your food--milk; vegetables and fruits; breads and cereals; meat. Then plan your meals and snacks around these requirements.

Try new and interesting foods when meeting these requirements. Many people have never tasted the foods they refuse to eat. Limiting the foods you eat to a few old stand-bys may result in a poor diet.

Learning to enjoy a variety of foods also insures that you will be able to meet your daily requirements, no matter where you happen to be.

SELECT COOKWARE FOR HEAT CONDUCTION, NOT COLOR

The colorful cookware on the market tempts many a homemaker to throw away her old pots and pans and replace them with poppy red, fern greens or golds to match her kitchen decor.

But don't select cookware only on the basis of its attractive appearance, cautions Mrs. Wanda Olson, extension specialist in household equipment at the University of Minnesota.

You'll be more satisfied with your new pots and pans if you consider carefully what material is under that gay finish.

Aluminum, glass, steel and iron are all used in pans, and all conduct heat differently. The evenness with which the heat is conducted is the most important element in cooking. Mrs. Olson gives these tips to help you decide what material to select:

Aluminum is a good conductor of heat, that is, it heats fast and evenly.

It can be lightweight or it can be heavyweight for frying or braising.

Stainless steel is not a good conductor of heat unless low heat is used.

However, the combination of stainless steel with copper or aluminum makes for good heat conduction.

Glass holds heat well but is not a good conductor.

Iron heats evenly but slowly and holds heat well.

If you're shopping for pans, don't be sold by the color alone; check the label to find out what material is underneath that attractive surface.

OUTSTANDING 4-H'ERS CHOSEN IN CONSERVATION PROJECT

Nine Minnesota 4-H'ers who have done outstanding work in the 4-H conservation project have been selected for special recognition.

They are: Lucinda Hruska, <u>Waterville</u>; Majorie Belseth, <u>Louisberg</u>; Kathy Blank, <u>Janesville</u>; Lorraine Clasen, <u>Long Prairie</u>; Valerie Drewry, <u>Hampton</u>; Marlys Edwards, <u>Uitca</u>; Gary Fieldseth, <u>Silver Creek</u>; Mia Hutchinson, <u>Chisago City</u>; and Kenneth Ostlie, <u>Montevideo</u>.

Miss Hruska was awarded top honors in the conservation project.

She will receive a trip to the 1970 National 4-H Congress Nov. 29-Dec. 3

in Chicago. During the congress she will attend the National 4-H Dress

Revue, tour Chicago's famed museums, hear prominent speakers and participate in discussions.

The award to the other winners in the conservation project was a conservation tour this week (October 19-20) at LaCrosse, Wisconsin, sponsored by Northern States Power Co. They toured a wild geese and duck refuge, a state fisheries operation, flood control practices on the Root River and the Whitewater State Park. University of Minnesota specialists talked on soil conservation and archeology.

Some of the conservation project activities the winners conducted include planting tree seedlings, studying weed control, tracking wild animals, identifying birds, collecting insects, studying and putting into practice soil and water conservation and protecting wild pheasants. The 4-H'ers also gave many demonstrations and talks on various conservation practices.

Nearly 10,000 4-H'ers are enrolled in some aspect of conservation. # # # # 140-llh-70

To all counties

ATT: COUNTY EXTENSION HOME ECONOMISTS

Immediate release

COLOR FALL MEALS WITH VEGETABLES

Orange squash, deep green broccoli--these are among the fall vegetables from home gardens and local markets that can make meals appealing to the eye as well as to the taste buds.

Go to any roadside market or grocery store and you'll find an array of colorful pumpkins, squash, carrots, sweet potatoes, peppers, potatoes, cabbage and rutabagas. At this time of year many of the vegetables in season are deep yellow and dark green-excellent sources of vitamin A, one of the nutrients often lacking in the daily diet of many Minnesotans, says Grace Brill, extension nutritionist at the University of Minnesota. Vitamin A is important for growth, for helping to protect the body against infection, for keeping skin and mucous membranes in good condition and for protecting against night blindness. Besides contributing good nutrition and flavor to the diet, vegetables have the advantage of being low in calories.

To make vegetables appealing to your family, Miss Brill gives these suggestions:

- . Buy good quality produce.
- Serve vegetables raw as relishes.
- . Cook vegetables quickly so they retain their quality, color and nutritive value.
- . Add seasonings, spices and sauces for interest.
- . Cook vegetables in a variety of ways--sometimes baking them, sometimes steaming, panning, broiling or cooking in a pressure saucepan.

When you boil vegetables, cook them quickly to preserve their color. Cook green vegetables in an uncovered pan to allow volatile acids formed in cooking to pass off. After the first few minutes the pan may be covered. Cook yellow or white vegetables in a small amount of water in a covered pan till they are just tender. Cook red vegetables in water to which lemon, orange juice or vinegar has been added so the red color does not fade.

For ideas on preparing vegetables, get a copy of Extension Bulletin 294, "Popular Ways to Serve Vegetables," at your county extension office.

SIBLEY COUNTY EXTENSION HOME ECONOMIST HONORED

Mrs. Margueriete Green, Sibley County extension home economist, Gaylord, has received the Distinguished Service Award from the Minnesota Association of Extension Home Economists for her effective extension home economics-family living program.

The award, established last year, is given to county extension home economists who have served for seven years or less. Mrs. Sharon Gilsrud, Mankato, Blue Earth County extension home economist, was recipient of the first award.

As extension home economist Mrs. Green directs the extension home economics-family living program in Sibley County and works with 4-H members in leadership and home economics projects. During the seven years Mrs. Green has been in the county she has also conducted clothing and drapery workshops, trained more than 60 boys and girls in baby-sitting clinics, held a charm school, taught nutrition to young families and senior citizens. She works with food stamp recipients and Spanish-American migrants on programs of improved nutrition, consumer buying and child care.

Active in the Minnesota Association of Extension Home Economists, she has been treasurer and second vice president of the organization. She is a member of the American Home Economics Association, Epsilon Sigma Phi, national Agricultural Extension Service fraternity, and has served on the Governor's Council on Aging.

Mrs. Green holds a bachelor of science degree from the University of Dubuque, Dubuque, Iowa, with a major in home economics. She has also taken graduate study at the University of Chicago and Colorado State University.

140-jbn-70

BURNING LEAVES MAY CAUSE WATER POLLUTION

Burning leaves can contribute to water pollution, as well as air pollution, says University of Minnesota Soil Scientist Lowell Hanson.

Water pollution from burning leaves may be a special problem in city areas where the ashes from burned leaves can move directly into storm sewers after a rain, Hanson says.

He cites a study in Madison, Wisconsin, where the phosphorus content of storm water runoff was about 10 times that of normal stream water. The phosphorus content of the storm water runoff was especially high in November and was attributed to widespread leaf burning along street curbs.

Phosphorus has been identified as one of the most important nutrients stimulating excess algae bloom in lakes, Hanson says.

Composting is a good way to get fertilizer value from the leaves and prevent the possibility of air and water pollution from burning. University horticulturists give these tips for building a compost piles: Build the compost pile in a 4-foot square. For each 6-inch layer of leaves, add about 1 inch of soil. Along with the soil, add 2 to 3 pounds of a complete fertilizer. Keep the center of the pile lower than the edges and water occasionally.

UM ANNOUNCES DATES, TOPICS FOR BEEF DAYS

The University of Minnesota has scheduled six beef cattle feeder's day meetings at various state locations as follows:

December 3, Peters Hall Auditorium, St. Paul Campus

December 4, Experiment Station Office Building, Grand Rapids

December 8, Southern Experiment Station, Waseca

December 9, Worthington Coliseum, Worthington

December 10, North Central Experiment Station, Morris

December 11, Northwest Experiment Station, Crookston

All meetings will start at 9:30 a.m. with registration and coffee. Research reports will be presented starting at 10:00 a.m. Topics include housing systems for feedlot cattle, hormones for feedlot heifers, corp silage and corp grain levels in finishing rations, antibiotics for new feedlot cattle, liquid feedlot rations, corp silage varieties, use of waste materials in cattle rations, level of feeding for beef cows and several others.

Summary-type presentations will include the value of crossbred cattle in the feedlot, the value of roughage in feedlot rations and management recommendations to improve profits. R. W. Touchberry, recently named Animal Science Department head, will address the groups with comments on animal science teaching, extension and research activities.

ANNUAL MEETING OF COUNCIL ON FAMILY RELATIONS NOV. 7

"Changing Sex Roles in a Changing Society" will be the theme of the annual meeting of the Minnesota Council on Family Relations Saturday,

Nov. 7, at the University of Minnesota's St. Paul Campus Student Center.

Jessie Bernard, research scholar, Honoris Causa, Pennsylvania State University, will deliver the keynote speech at 9:30 a.m. Dr. Bernard is an authority on the dynamics of family living.

Included on the panel reacting to Dr. Bernard's speech on "Changing Sex Roles" will be Joan Aldous, professor of sociology, and Wayne Anderson, professor of family studies, University of Minnesota, and Paul Riddle, supervisor, School Health Unit, Minnesota Department of Health.

Small luncheon groups will have round-table discussions from 12 to 2:30 p.m. on such subjects as sex roles in transition, women's liberation, sex differences in temperament, implications of sex role changes for the family, family planning and sex-role allocation in marriage. Leaders of the discussion groups will be sociologists, family living teachers and other specialists in family life fields.

The annual business meeting scheduled for ll:30 a.m. to 12 will be chaired by Don Irish, professor of sociology, Hamline University, president of the Council.

Registration has been set for 9 to 9:30 a.m. The meeting is open to the public. A registration fee of \$1 is charged to students, \$2 to others. Advance luncheon reservations must be made by Nov. 2 by calling 331-2774, the Minnesota Council on Family Relations.

Further information on the program is also available from the Council, 1219 University Avenue S. E., Minneapolis, Minnesota 55414.

MOTOR BOATS DAMAGING TO WILDERNESS AREAS

The use of motor boats may need to be discouraged and use of paddle canoes encouraged as more people visit wilderness areas.

This is the assessment of a study in the Boundary Waters Canoe Area (BWCA) by Stephen F. McCool, assistant professor of the College of Agriculture at Wisconsin State University and Lawrence C. Merriam, Jr., forestry professor at the University of Minnesota.

Motor boats adversely affect water quality and may need to be discouraged to preserve the sensitive resources of wilderness areas, they say.

The paddle canoe seems to be more in agreement with the purposes of a wilderness area as established by the Wilderness Act of 1964, the scientists add. McCool interviewed 500 spokesmen of groups returning from overnight camping trips into the BWCA to determine their preference of travel means. He found that paddle canoeists are most satisfied with their present means of travel. Many motor boaters, however, would prefer paddle canoes over motors given sufficient time and money.

Conflicts between paddlers and motorized groups may increase as use accelerates. As paddler motor boater encounters increase, the paddler's satisfaction with his wilderness experience may decrease, they say. Paddlers accounted for 61 percent of the total BWCA visitor days use in 1968.

BORLAUG RECEIVES NOBEL PEACE PRIZE

Norman Ernest Borlaug, who received three academic degrees from the University of Minnesota, has been awarded the 1970 Nobel Peace Prize. He is the first plant scientist to receive the award.

Borlaug is the director of the wheat improvement program with the Rockefeller Foundation in Mexico City. He received the award for helping the world develop better grains through the "Green Revolution."

The "Green Revolution" refers to the use of improved wheat seed, new types of higher yielding rice, and more efficient use of fertilizer and irrigation in providing larger crops in many less-developed countries.

His work has resulted in increased yields of from two to six-fold in developing countries such as Mexico, Pakistan and India.

Borlaug was born in Cresco, Iowa and originally decided to attend the University of Minnesota to participate in the school's wrestling program. He received his B.S. in forestry from the University of Minnesota in 1937. His undergraduate adviser was Dr. Frank Kaufert, presently director of the School of Forestry.

Borlaug went on to get his M. S. in plant pathology, and received a Ph.D. in plant pathology and plant genetics in 1942.

He worked as a researcher with the E. I. du Pont Company until 1944, when he joined the Rockefeller Foundation. In 1959 he received the University's outstanding achievement award for his "imaginative thinking and solid work in breeding new varieties of wheat which helped Mexico become self-sufficient in this crop for the first time."

Borlaug received the Elvin Charles Stakman award in 1961 for his work in Mexico. The Stakman award was established by students, colleagues and friends of Dr. E. C. Stakman, presently professor emeritus of plant pathology who was chairman of the department when Borlaug was a student.

TWO COUNTY EXTENSION HOME ECONOMISTS HONORED

MILWAUKEE, WIS.--Two Minnesota county extension home economists will receive special recognition October 29 from the National Association of Extension Home Economists.

They are Myrna Shearer, North Branch, Chisago County, and Mrs. Elaine Klingbiel, Farmington, Dakota County.

They are among a group of county extension home economists in the nation who will be cited for outstanding service at a special recognition breakfast during the convention of the national association in Milwaukee.

The distinguished service honor is given to county extension home economists for serving as effective educational leaders in working with county families.

Miss Shearer has been extension home economist in Chisago County since October, 1959. Mrs. Klingbiel has served in Dakota County since May, 1963. They direct the extension home economics-family living programs in their respective counties and work with 4-H members, particularly in the home economics projects.

Both will be recognized for their effective teaching of home economics subject matter and for youth programs. In addition, Miss Shearer will be cited for her work with the county safety committee, the Governor's Council on Mental Retardation, the County Mental Health program, the County Association of Parents of Mentally Retarded and Project Sunrise. Mrs. Klingbiel will be recognized for her work with young homemakers, county home health supervisors and welfare clients.

add 1--home economists honored

Miss Shearer holds a bachelor of science degree in home economics from Stout State University. Mrs. Klingbiel has a B.S. degree from Iowa State University.

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143-jbn-70

To all counties

4-H NEWS

Immediate Release

4-H COURSE IN TRACTOR OPERATING CUTS ACCIDENTS

Reducing the toll of deaths from tractor accidentsbetween 40 and 50 a year
in Minnesotashould be one of the benefits of the special 4-H safe tractor driving
program, in the opinion of County Agent
Some County youths will be able to operate tractors and (app. no.)
(app. no.) other farm machinery more safely as a result of the special training they have
received through the 4-H tractor safety program sponsored by the University of
Minnesota's Agricultural Extension Service.
They are among some 5,000 boys and girls between 14 and 16 years of age who
have completed the program and been certified as safe tractor operators.
The special training program was set up after the Department of Labor declared
in 1968 that certain occupations in agriculture were hazardous, such as driving power
machinery. According to the regulations, boys and girls under 16 could not be
employed to perform these jobs off the home farm on a hired basis.
Since the 4-H tractor program offered special emphasis on the safe use of farm
tractors and other machinery, an exemption to the ruling was made for 14-and 15-year-
olds who had completed this program.
Interest among teenagers wanting summer work and farmers needing tractor
operators led to a concentrated program which would allow more young people to meet
the training requirements.
InCounty (tell when and where the course has been given, number
enrolled and who the instructors have been

add one--4-H tractor

The training includes a minimum of 24 hours—4 hours devoted to the normal working hazards in agriculture, 10 hours of training in safe and efficient use of the tractor and 10 hours in safe operation of other power farm machinery. At the end of the course the youth must pass a written test and a practical tractor driving test. Upon successful completion of the course he receives a certificate.

Changes in the regulation this year allow similar certification through a specified vocational agriculture training program.

Farmers hiring 14-and-15-year-olds must have a copy of the worker's certificate or file, instruct the worker in the use of the machine he is to operate and provide supervision at least periodically through the day.

To all counties

ATT: COUNTY EXTENSION HOME ECONOMISTS

Immediate release

PORTABLE WASHER MAY MEET NEEDS

Doing the laundry may be a real chore for the family with too limited space for a regulation size washing machine.

A portable washer may be an alternative in that case, says Mrs. Wanda Olson, extension specialist in household equipment at the University of Minnesota. A small area in the kitchen or bathroom can easily be converted into a laundry area with a portable washer and a portable dryer. Together they take less floor space than one standard-size appliance and neither requires special installation. Some families with laundry appliances in the basement also find it convenient to have portable laundry equipment that is more conveniently located.

A portable washing machine needs a space of only 2 feet by 1-1/4 feet--about half that needed for a full-size washer. No special plumbing hookup is needed. When you want to wash clothes, simply roll the washer to the sink and hook on to the faucet.

The portable washer uses about half as much water as a full-size washer and will take wash loads about half the usual size.

Most portables are not automatic. It is usually necessary to lift the clothes out of the washing section into a separate compartment for spinning.

A number of different companies now manufacture portable washers with agitators or tumble-type action. Be sure to compare different models to be sure you select one that meets your needs, Mrs. Olson advises.

To all counties

4-H NEWS

Immediate Release

4-H'ERS CAN GET SNOWMOBILE CERTIFICATION

Interested in snowmobiling?

include this information in your story.

4-H'ers between the ages of 14 and 18 who wish to operate a snowmobile	
winter will want to attend a snowmobile training course scheduled to begin	(data)
	(date)
at at (hour) (place)	

The Minnesota legislature recently passed a law requiring certification of snowmobile operators 14 to 18 years old before they can cross a public highway with a snowmobile.

The Minnesota Department of Conservation has developed and is sponsoring the training course which will award youthful drivers their operator's certificate, says County Extension Agent _____.

The course will consist of four sessions of two hours each totaling eight hours of training. The instruction will cover the parts of a snowmobile, snowmobile laws and regulations, maintenance, operation, clothing, equipment, emergencies and transporting snowmobiles. A registration fee of \$2 will be charged youth participants for instructional materials.

The 4-H snowmobile project in Minnesota has grown from 35 in 1968, the first year, to the 1870 enrollment of 527. The project tries to develop young people's interest and enthusiasm for the out-of-doors in winter, skills in handling and maintaining a snowmobile, appreciation for the necessity of laws governing snowmobilin and consideration for others, says County Agent ______.

(NAME)

For further information, contact County Agent ______. Or ______ your local conservation officer.

Note to County Agents: Contact your local conservation officer to learn the time and place of the workshops in your area and the name of the instructor. Be sure to

To all counties

Immediate release

CATTLEMEN: NOTE RULE CHANGE FOR STILBESTROL

Cattle feeders should find it advantageous to take advantage of a new Food and Drug Administration ruling on stilbestrol.

The new ruling allows feeders to feed 20 milligrams per head per day of the stilbestrol hermone to steers 750 pounds and heavier, according to University of Minnesota animal scientists. The old limit was 10 milligrams per day.

Research shows that increased performance from the 20 milligram level gives cattle feeders a good return-about a 10 to 1 return on the added stilbestrol cost.

However, the specialists emphasize that feeders must strictly observe the requirement for withdrawing stilbestrol from the feed 48 hours before slaughter.

Reports indicate the FDA will prosecute livestock feeders found guilty of violating withdrawal times for drug products when sending livestock to slaughter.

The withdrawal period is necessary for elimination of the hormone from the tissues of the animal. But the specialists emphasize that feeding stilbestrol does not leave residues in the carcass tissue of cattle if it's withdrawn 48 hours before slaughter.

If you know when you will ship cattle to market, withdraw any supplement that contains stilbestrol two or three days before shipping. Two or three days without a supplement just before slaughter won't significantly affect cattle performance.

For cattle feeders who like to sell within a two to three-week period, but on the basis of daily market changes, the animal scientists recommend this method:

Just before cattle are ready for market, shift to a supplement that does not contain stilbestrol. After two days on the non-stilbestrol supplement, the cattle may be sold from the feedlot direct to slaughter.

To all counties

Immediate release

STILL TIME TO PLANT TULIPS

There's still time to plant tulip bulbs for spring blooming--as long as you can get a spade in the ground this fall.

Buy the bulbs from your local garden center or florist, suggests Jane McKinnon, extension horticulturist at the University of Minnesota. Some attractive tulips include Smiling Queen, a light pink; Cum Laude, a purple variety; the very early Yellow Emperor; or Golden Niphetos.

A dozen rosy pink Princess Elizabeth against a Mugho pine will have more effect than plantings of mixed colors, Mrs. McKinnon says.

Select a sunny site where you can enjoy the plantings from a house window.

Plant the bulbs in well prepared soil with good drainage, make sure to work in adequate amounts of organic matter along with a fertilizer that's high in phosphorus and potassium.

Well-rotted manure can be used as a source for organic matter, but never use fresh manure where it can come into contact with the bulbs.

The depth of planting varies with the soil type and bulb size. As a general rule, larger flowered tulips usually should be planted from 6 to 8 inches deep.

The spacing between bulbs should be about the same as their depth. Plant deeper on sandy soils, and place large bulbs deeper than small bulbs.

Cover the plantings with a light mulch of leaves or straw before the ground freezes, Mrs. McKinnon adds.

To all counties

Immediate release

COUNCIL SEEKS TO IMPROVE STATE'S FIRE PROTECTION

Absence of fire protection for substantial portions of Minnesota and differences and inequities in contracts for fire protection between municipalities and outlying rural areas are two of the main issues confronting the State Advisory Council on Fire Service Education and Research.

The council was formed by Governor Harold LeVander in accordance with a law passed at the last session of the legislature.

"As its basic objective, the council will explore ways to improve fire protection in Minnesota," says LaVern Freeh, council chairman and assistant director of the Agricultural Extension Service, University of Minnesota.

"There are vast differences in quality of fire protection between different areas of the state. This is due to differences in travel distance and the wide variance in manpower and equipment available to local fire departments," Freeh adds.

Another problem concerns state, federal and private facilities such as nursing homes and correctional institutions which are located outside of corporate limits. These units constitute huge risks, and oftentimes the quality of fire protection is questionable.

In many cases, the closest fire department to these institutions attempts to provide protection without charge, but are hampered by budget limitations.

Many fire departments provide protection for institutions such as nursing homes out of their corporate limits because they feel morally obligated—but state law does not establish responsibility for fire safety. There's no law requiring local government units to provide for fire protection.

add 1--fire protection

One of the functions of the council will be to study existing fire protection situations throughout the country and in Minnesota, then make recommendations to the legislature. "It's possible that some state laws may need to be changed," Freeh says.

The council will also recommend appropriate fire training and education programs, both for fire departments and the public.

The council consists of educators, municipal, state and county government officials, business and community representatives plus fire service officials. It is responsible to advise the governor, the legislature and appropriate individuals and agencies on current developments in fire service education and research.

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To all counties

Immediate release

IN BRIEF

Compare Corn Hybrids. A performance record on this year's corn hybrids will prove valuable when it comes time to buy seed for next year's planting. Write down the good and bad points about your corn hybrids while they're fresh in your mind, suggests Dale Hicks, University of Minnesota extension agronomist. Making a comparison of different hybrids grown on your farm is one way to get an idea of what to plant next year. Another good source of information is the replicated performance tests conducted by hybrid seed companies, Hicks says. He suggests asking hybrid seed salesman for comparisons of hybrids within their company. Yield is the most important characteristic, but consider other factors such as standing ability, disease and insect resistance and shelling ability.

* * * *

Plan for Next Year's Garden. Now's a good time to evaluate this year's garden and plan for next season. Start with careful notes on your garden. List varieties you grew and note their appearance, suggests O. C. Turnquist, University of Minnesota extension horticulturist. Get a copy of "Vegetable Varieties for Minnesota—1970" from your county extension office and mark the varieties you want to order for next year. Try one or two new varieties and compare them with your current favorite. But remember that a 1-year test doesn't tell the whole story, Turnquist cautions. Then order your seed catalogs early—new varieties disappear fast. Get catalogs from several companies so you will have a wide selection of varieties.

* * * *

add 1--in brief

Don't Short Pigs on Protein. If you turn your pigs out in the cornfield to pick up corn this fall, make sure they receive an adequate protein supplement. In two tests at the University of Illinois, pigs fed only half the recommended amount of protein supplement gained only two-thirds as fast as pigs that received a balanced ration. Pigs that received the balanced ration gained 182 pounds more on each ton of feed than the pigs that received the low protein ration.

* * * *

Protect Raspberry Plants. Raspberry plants often suffer from winter injury.

The only practical way to protect canes from winter damage is to bend the canes down in the fall and cover them with soil. Do this in early November, before the ground freezes.

* * * *

Mulch Strawberry Plants. Mulching strawberry plants helps protect them from low temperatures and planting losses caused by soil heaving. The strawberry planting should be mulched before severe winter weather, but not before the plants have been subjected to a few good frosts. Normally, early November is about right in the Twin Cities area. Small grain straws and marsh hay are the best mulching materials. Apply the mulch to a depth of 3 to 4 inches.

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members.

To all counties

Immediate release

DATES SET FOR PROPERTY TAX SHORT COURSE

A series of property tax short courses are scheduled throughout the state in
November and December, announces County Extension Agent (name)
The session for will be held and
at thein (building) (city)
Dates and locations of the meetings follow.
November 17, December 1; Moose Lodge, St. Cloud.
November 18, December 2; Quadna Mountain Lodge, Hill City
November 19, December 3; American Legion Club, Bagley.
November 20, December 4; Holiday Inn (Junction of Highways 210 and 1-94) Fergus Falls.
December 1 and 8; Central School Office Building, Willmar
December 2 and 9; Driftwood Steak House, Windom.
December 3 and 10; Southern School, Waseca.
December 4 and 11; Perkins Cake and Steak House, Rochester.
The meetings are intended for assessors, auditors, treasurers and county board

Topics covered at the meetings will include the changing role of property tax, tools for assessing real and personal properties in rural and urban areas and how they can be used cooperatively with county officials, and sources of information which can help the local assessor do a better job.

UNIVERSITY OF Minnesota

DEPARTMENT OF INFORMATION AND AGRICULTURAL JOURNALISM COFFEY HALL • ST. PAUL, MINNESOTA 55101

October 27, 1970

Dear Editor:

The enclosed feature story examines the outlook for Minnesota's wood products industry in the 1970's as related to the problems of the manufactured housing industry--namely, the restrictive building codes.

Sincerely,

Vernon A. Keel

Information Specialist

VAK/mg Enclosure Department of Information and Agricultural Tournalism Institute of Agriculture University of Minnesota St. Paul 55101 Tel. 373-0710 October 27, 1970

Immediate Pelease

Minnesota Wood Products Industry: BUILDING CODES HAMPER PREFABRICATED HOUSING STARTS

Minnesota's wood products industry will be greatly affected by the needs of manufactured housing, which has been hampered from entering many communities due to restrictive local building ordinances.

Our society faces the challenge of mass producing low cost housing, which will require drastic changes in our present methods and concepts of production, according to Roland O. Gertjejansen and Robert W. Erickson, both associate professors in the University of Minnesota's School of Forestry.

In a forthcoming special issue of "Minnesota Science," the quarterly publication of the Minnesota Agricultural Experiment Station, the two explain that a major change is underway in housing production with more and more "manufactured homes."

Manufactured homes are mass produced in a factory and shipped in sections or complete to the building site. Mobile homes and prefabricated homes are examples of manufactured housing and have been on the scene for some time, they added.

A more recent approach is the modular concept. In this case, modules, consisting of cubes or individual rooms are factory produced and then pieced together at the building site.

add 1--wood products

It has been estimated by the federal government that a minimum of 2.6 million housing units need to be built each year during this decade. "In 1969 there were only 1.5 million housing starts and it appears that 1970 will be about the same. Obviously the quota is not being met and chances are good that the problem will be with us well beyond 1980. Increasing needs in housing, revolutionary approaches to housing production and the complementary items required in these housing units will all have a bearing on Minnesota's forest resource, "Gertjejansen and Erickson said.

The impact of urban and suburban housing and building laws on housing and building costs was examined by the National Commission on Urban Problems in the context of building "an abundance of housing for American citizens with low incomes," according to the commission's report.

"A building code is a series of standards and specifications designed to establish minimum safeguards in the erection and construction of buildings, to protect the human beings who live and work in them from fire and other hazards, and to establish regulations to further protect the health and safety of the public.

"Building codes are formulated and enforced through the police powers of state governments, ordinarily delegated to and exercised by local governments, usually municipalities. In one form or another, codes go back to the earliest days of civilized society and serve an essential purpose," the commission's report stated.

The commission found that "complaints against building codes, building code organizations and local officials are widespread."

add 2--wood products

Among the charges against locally adopted building codes were that they "prevent the use of the most up-to-date and modern materials, that they inhibit creative design, that their provisions are antiquated and outdated and that procedures for modernizing and amending them are slow, laborious, lacking in objective standards and dominated by" building code and trade association officials, the report said.

On the other hand, "complaints by innovators whose materials or methods are not accepted in the codes are often said to be unfounded because the innovations have not been properly tested," the commission's report added.

Besides the locally-written codes, four groups in the United States have drawn up "model" codes that are made available to local governments. Under "performance" codes promulgated by some of the groups, new materials are incorporated into the code as soon as they are certified by some nationally recognized authority. There is no need for elaborate rewriting or action by local officials when "performance" codes are used. There are proponents and critics of these codes.

According to a survey by the National Commission on Urban Problems,

"only about 15 percent of all the municipalities and townships above 5,000 in population had in effect a national model building code which was reasonably up-to-date."

About 85 percent of the local government units either had no code, did not use a model code or had failed to keep the code up to date, the commission reported.

After several hearings, the Minneapolis City Council recently approved adoption of the Uniform Building Code, one of the four model codes, expected to become effective locally after the first of the year. At present, locally-written building code is in force.

Sol Tacobs, deputy director of inspection for the Minneapolis Building
Inspection Department, said the trade unions have agreed to a procedure allowing
one and two-family manufactured homes to be placed in Minneapolis even though

add 3--wood products

they have been plumbed and wired in a factory where local inspectors cannot inspect them. This departure from past practice is being made possible by an added provision that inspection will be made by a certified agency at the plant. After the manufactured homes are brought to Minneapolis, final hookups will be done by locally licensed tradesmen, he said.

Jacobs termed the new procedure for inspecting manufactured homes a "major step forward" for the city.

As restrictive codes are eased and the tight money situation improves, more manufactured housing starts can be expected. Meeting the needs of the manufactured housing industry and other industries using wood products "will require a lot of wood and wood-based building materials," Gertjejansen and Erickson said.

It is questionable whether the nation's major wood producing areas, the South and West, can bear the burden of increased wood demand. "Consequently, Minnesota and the other lake states may experience a further increase in wood products manufacturing. This in turn would require stepped up production of wood raw material from Minnesota.

"Though there appears to be surpluses of aspen, paper birch and certain other species, much of the standing timber may not be economically available for processing," they added. Sawdust and bark can help meet the demand for wood fiber if ways of effectively and economically utilizing them can be found. The Forest Products Division will step up research on ways of utilizing sawdust and bark to learn more about the basic physical and chemical composition of these two items before they can be modified and used for new and existing wood products, Gertjejansen and Erickson said.

WRAP ALL GAME WELL FOR FREEZER

The prize wild game your husband bagged deserves careful packaging and good wrapping if you plan to store it in the freezer.

Considering hunting costs, the wild duck, pheasant, goose, venision or other game is actually pretty expensive; hence it's worthwhile to spend enough money for good moisture-vapor-proof packaging materials to freeze it properly, according to Mrs. Shirley Munson, food scientist at the University of Minnesota.

Proper cleaning of wild game birds before freezing and good wrapping materials and low temperature are essential if the meat is to retain its good natural flavor.

One of the wrapping materials Mrs. Munson recommends for game is heavy-duty aluminum foil. Mould the heavy foil closely around the product after the game has been dressed and cleaned properly. Then protect the foil from puncturing by slipping the packaged game into a polyethylene (plastic) bag.

When game birds and venison are well wrapped, they will keep frozen satisfactorily for 6 to 9 months if the temperature of the freezer is 0° F. or lower.

Department of Information and Agricultural Tournalism Institute of Agriculture University of Minnesota St. Paul 55101 Tel. 373-0710 October 29, 1970

Immediate Release

USE OF MEAT THERMOMETER RECOMMENDED

How often do you use a meat thermometer?

In these days of high meat prices, Verna Mikesh, extension nutritionist at the University of Minnesota suggests that it will pay you to dust off that meat thermometer that is buried in your drawer of kitchen gadgets.

A meat thermometer will actually pay for itself many times over if you use it on all your oven roasts and meat loaves to check the degree of doneness of the meat and to avoid overcooking, Miss Mikesh points out.

You'll get more meat if you don't overcook it, and it will be juicier and easier to slice. There is no point in cooking meat any longer than necessary.

Overcooking makes meat tough and dry. Tender beef oven roasts like rib, rump or sirloin tip of Choice grade are much juicier if cooked rare or medium instead of well done. A tender lamb oven roast needs to be cooked only until it is just slightly pink. Meat loaves should be cooked only to the well done stage for beef. Research has shown that loin or leg pork roasts are done sufficiently and much juicier if they are roasted to 170° F. instead of 185° F.

October 29, 1970

Immediate Release

MANY STATE RESIDENTS LACK FIRE PROTECTION

Many rural areas in Minnesota have poor fire protection -- if any at all.

Most people assume that every citizen is paying for fire protection, but there are no state laws that dictate responsibility for fire protection, according to Frank Oberg, director of the University of Minnesota's Fire Information Research and Education Center.

Oberg says that while fire protection is totally lacking in some rural areas, it is inadequate in others. For example, some municipal fire departments serve 10 to 15 townships covering up to 500 square miles. In some instances up to two-thirds of the calls answered by these departments are outside the municipality.

This means that the municipality is without fire protection while the fire department is on the rural calls. In addition, compensation for fire fighting services rendered to outlying townships is often inadequate.

And when disagreements arise about compensation for these services, there are few established guidelines to act on.

To help remedy those and other fire protection problems, a State

Advisory Council on Fire Service Education and Research has been established

by the Minnesota Legislature.

add 1--fire protection

"We believe everyone in Minnesota has the right to expect adequate fire protection," says Lavern Freeh, assistant director of the University of Minnesota Agricultural Extension Service and council chairman.

He says the functions of the council are to research possible solutions to the state's fire fighting needs, then conduct education and training programs for both the public and fire department officials.

'Our primary goal is better fire protection for all Minnesotans, and some state laws may have to be changed to make this possible," Freeh adds.

The council is composed of representatives of the state's educational institutions, various state government department, private institutions, and agencies and members of the fire service.

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To all counties

Immediate release

PEST CONTROL COURSE SET FOR UM CAMPUS

The fifth annual Pest Control Operator's Conference is scheduled for the University of Minnesota's St. Paul Campus December 7-8, 1970.

Purpose of the conference is to help bring pest control operator managers and servicemen up-to-date on new ideas and techniques in the pest control industry.

The session starts with registration at 1 p.m. at the Student Center on the St. Paul Campus. About 200 participants from the Upper Midwest normally attend the session each year.

Topics dealt with during the first day will include yard and garden pests, small mammal control, spiders, insect resistance, fruit flies, and control of rats, gophers, moles, bees and wasps.

On December 8 participants may choose either a management seminar or an insect identification workshop. A session on chemical control and applications will conclude the conference.

For more information, write to the Office of Special Programs, University of Minnesota, St. Paul, Minnesota 55101.

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To all counties

Immediate release

SOILS, FERTILIZER, PESTICIDES SHORT COURSE DEC. 15-17

A Soils, Fertilizer and Agricultural Pesticides Short Course is scheduled for the Minneapolis Auditorium December 15-17, 1970.

The conference is intended to provide current information on fertilizers, agricultural chemicals, soil and agronomic science, new technology, recommendations and regulations.

The course is tailored for fertilizer and agricultural chemical industry personnel, salesmen, bulk plant operators, custom sprayers, soils and chemical specialists and farmers.

About 25 University of Minnesota specialists and a host of experienced personnel from governmental agencies and industry will serve as faculty for the 3-day session.

In addition to the educational program, over 100 exhibits of soils and fertilizer equipment, products and soil conditioners will be exhibited. About 2000 people from the Upper Midwest are expected to attend.

For more information, contact the Office of Special Programs, 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, Minn. 55101 Tel. 373-0710 Nov. 1, 1970

Immediate Release

BUY DURABLE PRESS GARMENTS WITH CARE

Satisfaction with your durable press clothing, tablecloths and sheets depends not only on proper laundering but also on careful selection in buying.

About 90 percent of men's and boys' slacks now have the easy-care finish, as well as more than half the sport and dress shirts, work clothes, rainwear, tablecloths, sheets and pillowcases on the market.

Thelma Baierl, extension clothing specialist at the University of Minnesota, gives some pointers to keep in mind when shopping for durable press clothing:

- . Take time to inspect the garment. Make sure that seams, pockets and plackets are smooth and flat. There should be no unwanted creases or puckers.
- . Check the color to see that the garment is dyed evenly without any streaks.
- . Check the fit. Since alterations on durable press will not be satisfactory, the garment should fit properly.
- . Read the label for a statement about the fiber content. The blend should be at least 50 percent polyester.
 - . Check care instructions -- and remember to follow them exactly.
- . Consider the price. Expect to pay more for a durable press garment than a similar item that needs ironing.

To all counties

Immediate Release

REVIEW YOUR CHEMICAL WEED CONTROL PROGRAM

Reviewing the effectiveness of last year's chemical weed control program could lead to better results next year, advises Gerald Miller, University of Minnesota extension agronomist.

Miller suggests making a note of the kinds of weeds left in the field after harvest and recording areas in the field where there were special weed problems. This information can be the basis for selecting a herbicide or herbicide mixture for next year.

You may want to consider mapping the field so you have a record of special weed problems. Miller suggests keeping an up-to-date set of herbicide records. Include the type of herbicide used, the amount of acreage, the application date and the crop for which you used the herbicide.

If you're interested in a ready-made record sheet for chemical applications, ask your county extension agent for copies of Agricultural Chemicals Fact Sheet No. 2, entitled "Chemical Application Record." Copies are also available from the Bulletin Room, University of Minnesota, St. Paul, Minnesota. Zip code 55101.

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To all counties

Immediate Release

IN BRIEF . . .

Revised Bulletin on Dairy Feeding. A bulletin entitled "Feeding the Dairy Herd"--Extension Bulletin 218--has recently been revised by University of Minnesota animal scientists and is available from county extension offices. The bulletin is a handbook which the University has furnished to dairymen since 1894. Twenty-eight editions have been printed, and close to 560,000 copies have been distributed to Minnesota farmers--more than any other bulletin issued by the University's Agricultural Extension Service.

Copies of Extension Bulletin 218 are also available from the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

* * * *

Scholarships Available for Seniors. High School seniors who are considering enrolling in agriculture, forestry or home economics at the University of Minnesota next fall should be aware that nearly \$22,000 in scholarships are available to them. Deadline date for scholarship applications at the University is December 15. High school seniors who will need financial aid when they begin the University in the Fall of 1971, should apply for both scholarships and financial aids through their high school counselor before December 15. Or they can write directly to: Freshmen Scholarship Program, Financial Aids Office, 107 Armory, University of Minnesota 55455.

* * * *

Houseplant Care. Sick appearing houseplants may be suffering from improper watering, sudden changes in environment, cold drafts, lack of fertilizer, gas injury or insect attack. If you have a plant suffering from something other than insect damage, you'll be wise to discard it and start over again. But make sure you don't make the same mistake with the new plant.

To all counties

ATT: EXTENSION HOME ECONOMISTS

Immediate release

COOK CHICKEN AS SOON AS IT IS THAWED

Dark-colored meat near the bones of cooked chicken make some people wonder whether it should be eaten.

Why does the meat near the bones of cooked chicken sometimes turn dark and look unappetizing?

Darkening of bones and of the meat surrounding them sometimes occurs when young poultry is frozen and then cooked, says Verna Mikesh, extension nutritionist at the University of Minnesota. Source of the discoloration is red pigment from the red blood cells of the marrow.

As the bird grows older, the darkening is less likely to occur.

Thawing the bird before cooking increases bone darkening. The longer the bird remains in a thawed state before cooking, the greater is the tendency to darken. On the other hand, the shorter the time from thawing to cooking, the smaller the chance of bone darkening.

Miss Mikesh gives this advice to reduce bone and meat darkening: cook the bird as soon as it is thawed, or even when it is partially thawed.

To all counties

ATT: EXTENSION HOME ECONOMISTS

Immediate release

WHITE SHADE LININGS GIVE MORE LIGHT

If your house seems like a dark dungeon, your light bulbs and fixtures are probably at fault.

Check light bulbs for age, soil and size and check the color of shade linings, suggests Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota.

Old bulbs that have turned dark give reduced light; so replace them.

Dusty bulbs, too, steal light. Washing them may brighten the room more than you might expect.

If washing dusty bulbs doesn't make the room lighter, check to see if you are using the size of bulb necessary for reading, studying or doing various jobs in specific work areas. You need bulbs of from 100 to 150 watts for close work on dark materials such as hemming a dark skirt.

Size of the bulb may not be the entire answer to the problem, however.

Look inside your lamp shades. The bulbs may be large enough but the shades
may have dark linings that are absorbing much of the light. If the lamp shade
is paper, you may be able to change the color by painting it white. Otherwise,
buy a new white lampshade that will reflect rather than absorb the light.

4-H NEWS

To all counties

Immediate release

SEWING CAN BE FUN

If you're looking for a hobby that is fun, creative and economical, then the 4-H clothing project may be for you.

Seven out of 10 teenage girls have a hobby, and sewing is the most popular. Today 1.5 million teenage girls own their own sewing machines. In fact, there are sewing machines in nine out of 10 homes. More homes have sewing machines than bath tubs!

Teens get personal satisfaction knowing that they created their own clothes. It's very "in" to say you make your clothes. Teenage girls also like individuality in their look or style. Home sewing opens infinite possibilities for creating your own fashion image.

Today's fashions also account in part for the boom in home sewing. Girls find that some styles are easier to make than in past years. Patterns are simpler to understand and sewing machines do more of the work and are easier to operate.

Improved sewing products make sewing easier. Silk, polyester and cotton covered threads appropriate for the newer fabrics along with invisible zippers and more flexible coil zippers are a few of these improved products.

Improved sewing education has also revived the interest in sewing. Sewing classes offered by 4-H, schools, fabric shops and pattern and notions companies help solve your sewing problems and give advice on sewing the new fabrics that take special handling.

U SCIENTISTS STUDY DDT DETECTION IN FISH

University of Minnesota scientists are studying the effects of DDT and related insecticides on fish in hopes of developing a biological method to detect hazardous levels of DDT in fish populations.

At present, identification of DDT in fish and wildlife is difficult at best. Certain industrial chemicals related to DDT can be mistaken for this insecticide, according to entomologists L.K. Cutkomp, Han Heng Yap, and Edward Cheng.

Although scientists know that DDT accumulates in fish, the precise poisoning mechanism of DDT is not known. So toxic limits of DDT in fish are difficult to set. Now, DDT poisoning is usually discovered only after the fish or other wildlife have been killed.

DDT accumulates in fish and other wildlife by combining with fatty tissues where it is slowly lost. Some lake trout have been found with a concentration of DDT 13,000 times greater than the concentration that can be dissolved in water.

add 1--DDT detection

The entomologists are studying the effects of DDT on the Enzyme ATPase (adenosine triphosphatase). The ATPase system regulates and helps supply chemical energy in all fish and animals.

If DDT prevents ATPase activity, this may be a part of DDT's poisoning mechanism, Cutkomp says.

Cutkomp has found that DDT and related insecticides are the principal ones that affect the ATPase enzymes. So measurement of ATPase enzymes might be a good test for the effects of DDT in fish.

Cutkomp and his team have also found that DDT affects ATP enzyme activity in the muscles of fish more than the brain.

With this information, the entomologists hope to develop a method whereby fish could be easily tested to detect hazardous levels of DDT.

DDT has not been a problem in Minnesota.

"Some of the few unnatural fish kills in Minnesota have been attributed to misuse or improper application of chemcials but few have been directly attributed to DDT," Cutkomp said.

FIRST SUCCESS REPORTED WITH FROZEN BOAR SEMEN

The first litter of baby pigs in the world conceived from frozen semen was born early in October.

The effort represents 12 years of research at the University of Minnesota and could have widespread implications for the swine industry, says Edmund Graham, animal scientist in charge of the research project.

Frozen semen makes it possible to collect semen from outstanding sires and freeze it for storage. This increases the availability of outstanding breeding stock.

Techniques for freezing bull semen were perfected about 20 years ago, and frozen semen has been used widely in the beef and dairy industry.

However, there have been a number of complications in getting the procedure perfected for boar semen, Graham says.

The litter was born on October II. Five pigs were born and 4 have survived. "Although the litter size was small, we regard this as an important first step since we're finally up from ground zero," Graham says.

add 1--first frozen semen

The Minnesota researchers will continue their research project, hoping to perfect the technique so that eventually frozen boar semen may be used on a commercial basis. The plan to breed 50 sows with frozen semen in December, and another 50 in January.

Although artificial insemination (AI) of swine has not proved profitable for artificial insemination associations, there is great potential on a do-it-yourself basis for commercial swinemen, especially if practical heat synchronization techniques can be developed.

Heat synchronization would allow commercial swinemen to breed a large number of sows at one time to make maximum use of facilities. Farmers would know within a few days of when their sows would be farrowing and could plan to move pigs in and out of the facilities accordingly.

The development of techniques to store semen for even just a few days would be a tremendous asset to hogmen who want to incorporate heat synchronization with artificial insemination. For example, if a producer wanted to breed 30 or 40 sows by natural service within a few days, it would take a tremendous number of boars. But if AI techniques are developed so that semen can be collected, extended and stored for a few days, producers would need only a few herd sires.

Department of Information and Agricultural Tournalism Institute of Agriculture University of Minnesota St. Paul 55101 Tel. 373-0710

MINNESOTA 4-H CLUBS CITED FOR CONSERVATION ACTIVITIES

Certificates and state recognition have been awarded to 10 Minnesota 4-H clubs and one county for their outstanding programs in conservation of natural resources.

Anoka County was chosen for having the outstanding 4-H county conservation program in Minnesota. The county extension office will receive a \$50 cash award.

The 10 winning 4-H clubs are: Frisky Workers, Anoka County; Richwood Red Peppers, Becker County; Go-Fors, Dakota County; Mustaugh, Freeborn County; Hi-Lite, Isanti County; Lanesburgh Star, LeSueur County; Fraser, Martin County; Scott, Stevens County; Blooming Clovers, Waseca County; and the Silver Hill Ramblers, Wright County.

Working as a group, each club engaged in such community service activities as cleaning up lakeshore property and constructing conservation signs, maintaining roadside parks and the grounds around town halls, and caring for community flower beds. Several clubs set up displays which warn people about the dangers of pollution. They also planted several thousand trees, built birdhouses and feeders, participated in the pheasant habitat program and raised pheasants, says Wayne Carlson, assistant state leader, 4-H and youth development at the University of Minnesota.

add 1--4-h conservation activities

Many individual members collected insects, leaves and plants for exhibits, gave talks on conservation practices and wrote articles for National Wildlife Week. Many 4-H'ers made conservation scrapbooks, bird houses and feeders. Overnight camping trips taught 4-H'ers survival techniques.

Exhibits and demonstrations at county fairs and in the community have made other clubs and the community more aware of current conservation practices, according to Carlson.

The club certificates and \$50 county award are donated by the John Deere Company at Moline, Illinois.

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11h-148-70

SOUTHERN CORN BLIGHT LOSSES SHOULD DECREASE NEXT YEAR

Southern corn leaf blight should be less of a problem in Minnesota next year according to University of Minnesota extension plant pathologist Herbert G.

Although he says we can only speculate on the severity of southern corn leaf blight in 1971, Tohnson bases his estimate primarily on three factors.

*The most susceptible corn hybrids will be eliminated or at least reduced in quantity by seed companies.

*The southern corn leaf blight is not likely to survive in the field in Minnesota.

*And, a more normal season weatherwise would be less favorable for the fungus, compared to last year.

"However, I'm sure there are many other factors involved and this prediction could be wrong," the plant pathologist adds.

There's one reported case of the fungus surviving the winter in Iowa. The ears from an infected field were put in a crib in the fall of 1969 and caused some damage to an adjacent corn field down wind from the crib when the corn was shelled last July. But under field conditions, there would be less chance for the fungus to survive, Johnson says.

"The 1970 season was abnormally warm and humid, which favored southern corn blight. Cooler and drier weather should check the diseases, although cool weather could promote other problems such as yellow leaf blight and eye spot,"

Johnson concludes.

Department of Information and Agricultural 'ournalism Institute of Agriculture University of Minnesota St. Paul 55101 Tel. 373-0710 November 5, 1970

PROTECT ORNAMENTALS AGAINST ANIMAL DAMAGE

Your flowering crabs and other ornamentals may be used for rabbit feed this winter unless you take some steps to protect them.

Plants with trunks should be wrapped to the first branch with a tree wrap, heavy aluminum foil or hardware cloth, says Jane McKinnon, extension horticulturist at the University of Minnesota. Tree wraps are heavy brown paper wraps, available from garden stores.

Whichever protective device you use, make sure it's placed deep enough in the ground so animals can't get under it.

For plants which can't be wrapped, apply taste repellents in late fall.

Repellents are not poisonous to animals--they just taste bad and keep animals from eating treated plants.

Consult with your garden store operator for recommended taste repellents.

After the repellent has been applied late this fall, check the plants about once
a month during the winter. Some plants may require three or four applications.

A favorite plant for rabbits which can't be wrapped is Winged Euonymus. Other favorite targets for rabbits include flowering crabapples and the flower branches of Austrian pine. However, rabbits will eat almost anything in a bad winter, Mrs. McKinnon says.

Some trees damaged by bark-chewing animals may leaf out and bloom first thing in the spring. However, they're apt to die later since the food supply system has been damaged and nutrients can't be transferred from the leaves to the roots.

Immediate Release

ALL BEEF EQUAL IN FOOD VALUE -- FOR ATHLETES AND OTHERS

Athletic trainers frequently suggest the finest steak for their athletes "to develop their physique."

At home, young athletes may ask for steak to build muscle, while the rest of the family eats hamburger.

Actually--though this may come as a shock to the young athletes-they would do just as well on ground beef or hamburger, according to

Verna Mikesh, extension nutritionist at the University of Minnesota.

Lean beef muscle has the same nutritive value, whether it comes from the sirloin or the chuck.

The homemaker who serves the less expensive foods to her family need not worry, therefore, for fear she is depriving her young athletes of muscle-building material. They will build muscle from fish, eggs and poultry just as well as they can from T-bone steak. Inexpensive carbohydrate foods rather than protein can supply their energy needs.

When you give your athlete a rare steak before a big game, of course you'll be boosting his image as a he-man. But when it comes to giving him material for growth, pot roast or meat loaf will do the job, too.

To all counties

Immediate release

CULTURAL PRACTICES CAN REDUCE LOCAL BORER POPULATIONS

Cultural practices to control the European corn borer such as clean plowing or feeding infested plants as silage can't be relied on alone.

However, if these cultural practices fit your particular farming operation they will help reduce the number of overwintering borers locally, according to John Lofgren, University of Minnesota extension entomologist.

Theoretically, it would be possible to reduce the number of borers from year to year by handling the crop residues so that overwintering larvae are killed. But to be effective this practice would have to be followed over a vast area since the borer moths can fly many miles, Lofgren says.

Also, a high percent of the moths come from pupae in corn cribs where picking and cribbing is the harvest method.

Plowing to turn the crop and weed residues completely under before moth emergence in the spring is the most effective method for reducing the overwintering borers and moth emergence. However, clean plowing alone doesn't kill all the borers.

Some may tunnel up to the surface in the spring. If they can't find plant debris such as pieces of stalks to bore into, they will die from exposure to weather or natural enemies.

Feeding infested plants as silage or fodder to livestock will also destroy a high percentage of the borers.

Using stalk choppers in the field is not an effective method of reducing borer populations, Lofgren says. If stalk choppers are used as a method of preparing the field for plowing this will supplement the borer reduction, but can't be recommended just for borer control.

add 1--cultural practices

Burning crop residues is not a good practice, Lofgren adds. It destroys organic matter and doesn't completely kill the borers.

For additional information, ask your county extension agent for a copy of Entomology Fact Sheet No. 40, "European Corn Borer Control in Field Corn."

The publication is also available from the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

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To all counties

Immediate release

INFORMATION ON SHORELAND LAWS AVAILABLE AT UM

People considering the purchase of lakeshore property in Minnesota will be affected by a 1969 state law which controls the use and development of shorelands by July, 1972, according to Robert Snyder, extension land economist at the University of Minnesota.

An information memo on shoreland management standards is available by writing Snyder at the University of Minnesota, St. Paul, Minnesota 55101.

The 1969 law provides that all counties must enact controls over shoreland development by July, 1972. Controls such as zoning, sanitation codes and subdivision regulations must be in accordance with standards and criteria developed by the State Department of Conservation. The law applies to all land outside incorporated areas and within 1,000 feet of public lakes and 300 feet of streams.

Five criteria are being used by the department to classify lakes and streams including size; crowding potential; type of existing development; natural characteristics such as water depth, weediness and type of soil; and county and regional public water needs.

The classifications are important to people considering the purchase of a vacation home in the future, since the classification will determine the kind of zoning restrictions that will be applied in county ordinances. Zoning restrictions include such things as lot size, building setback, minimum frontage and the location of septic tanks.

Three preliminary lake classifications include natural environment, 85 percent of all lakes; recreational development lakes, 12 percent; and general development lakes, 3 percent. County officials are reviewing preliminary classifications and reclassification of some lakes is expected, Snyder explains.

To all counties

Immediate release

START NEW CATTLE ON FEED GRADUALLY

New feeder cattle should be allowed about three weeks before they receive a full-feed of grain.

University of Minnesota animal scientists suggest feeding new cattle high quality grass hay free-choice. Corn silage is also a good feed, but make sure you don't feed moldy material from the top of the silo.

One technique you may want to try is putting a top dressing of good quality hay on top of the corn silage to attract new cattle to the feed bunk.

New cattle should receive about 2 pounds per head per day of whole kernel corn or oats, and about one-half pound of soybean meal. But the specialists caution that cattle should not be allowed to consume large amounts of grain too early. Don't use urea until the cattle have been on feed for about 4 weeks.

For the first few days the cattle are in the feedlot, provide good clean drinking water in an open stock tank. Range cattle aren't used to drinking from a fountain.

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To all counties

Immediate release

IN BRIEF

Borer Losses. The heaviest corn borer infestation in 10 years was experienced by Minnesota farmers this fall. The borers caused a yield reduction of about 4 percent in the state's corn crop, says John Lofgren, University of Minnesota extension entomologist. Losses in the southwestern portion of the state averaged between 7 and 8 percent.

The yield losses were figured at 3 percent per 100 borers per 100 plant. The state average was about 130 borers per 100 stalks, and there were 246 borers per 100 stalks in southwestern Minnesota. Over 30 percent of the stalks were broken and over 3 percent of the ears were on the ground in southwestern Minnesota, and these figures were much higher in some fields.

* * * *

New Cattle Don't Need Special Feeds. When new cattle arrive at the feedlot, they're tired, hungry and scouring. University of Minnesota animal scientists say the scours usually aren't due to improper nutrition, but are caused by stresses and fright. Special feeds aren't needed to stop this kind of scouring. It will stop by itself if the cattle are allowed to rest and become quiet.

* * * *

add 1--in brief

Farmers: Become Familiar With Farm Tax Law. Farmers who are prefiguring their final tax bill for 1970 should make sure they're familiar with the 1969 revisions in the Federal tax code. Many of these revisions went into effect for the first time this year. The Tax Reform Act of 1969 has 9 provisions dealing specifically with reporting income from the farm.

Check the new regulations before deciding whether to buy or sell a particular item between now and December. Waiting until 1971 could save you some tax money.

* * * *

Fungus Growth on Corn. The southern corn leaf blight problem has prompted more questions about fungus ear infections this fall, according to Herbert G.

Johnson, University of Minnesota plant pathologist. So far none of the ears sent to the University for identification have been infected with the southern corn leaf blight fungus. And, research has revealed no problems from feeding livestock corn affected by southern leaf blight.

However, Johnson says certain strains of other fungi growing on grain can produce toxic substances. If you have some fungus growth on corn that you're planning to feed to livestock, one of the best safeguards is to try the feed on just a few animals for a week or two. Usually a low percentage of ears with fungus growth won't cause a feeding problem, but there's always a chance of toxicity.

To all counties

ATT: EXTENSION HOME ECONOMISTS

Immediate release

USE SAFE METHOD FOR THAWING FROZEN TURKEY

Thawing the big Thanksgiving turkey safely is sometimes a problem.

Verna Mikesh, extension nutritionist at the University of Minnesota, recommends that homemakers choose one of three safe methods to thaw the frozen turkey, in all cases leaving the turkey in its plastic bag:

- . In the refrigerator. Unless your refrigerator is large enough or your turkey small enough, this method is the least practical for most families. It will take the longest of the three methods--so allow plenty of time. Figure about 24 hours of thawing time for each 5 pounds of turkey. For a 20-pound bird, allow about three days to thaw.
- . Under cold running water. To thaw a bird in a few hours, place it under cold running water. The ideal place is in a laundry tub. If you thaw the turkey in standing cold water, change the water often. Allow from 2 to 6 hours, depending on size of turkey. Never thaw the turkey in warm water.
- . In a paper bag at room temperature. You may find this method the most practical. Place the turkey inside a heavy paper bag, close the bag securely and leave it on the kitchen counter to thaw at room temperature. Allow 12 hours for turkeys under 12 pounds and about 16 hours for birds 20-25 pounds. Research shows that the closed paper bag allows the turkey to thaw completely but keeps the outside surface temperature low enough to prevent bacterial growth before the inside thaws.

Thawed turkeys should be cooked within 1 to 3 hours after thawing. If the turkey defrosts sooner than you are ready to roast it, refrigerate it at once. It is safe to hold a thawed turkey for 24 hours in the refrigerator.

To all counties

ATT: EXTENSION HOME ECONOMISTS

Immediate release

TURKEY TIPS

High in Protein, Low in Cholesterol

Good news for weight watchers is that a serving of turkey contains fewer calories than an average serving of most meats. It's highest in protein and lowest in cholesterol of any other of the popular cooked meats. Turkey is also rich in two important B vitamins--niacin and riboflavin.

* * * *

Don't Stuff Turkey the Night Before

It's time again for that annual warning: Don't stuff your turkey the night before you roast it to save time the next morning. There's a definite food poisoning hazard in stuffing poultry that far in advance, says Verna Mikesh, extension nutritionist at the University of Minnesota. The turkey acts as insulation for the warm dressing, which spoils easily. But you can save time in preparing the dressing by combining the ingredients the day before and refrigerating them. Then it's a simple matter to stuff the turkey just before popping it in the oven.

* * * *

Use Meat Thermometer

The best way to find out if your turkey is done is to use a meat thermometer, inserting it so the bulb is in the center of the inside thigh muscle or the thickest part of the breast meat. Be sure the bulb does not touch bone. The thermometer should register between 180 and 185° F. when the turkey is done. Another test of doneness: the drumstick can be moved up and down easily or can be twisted readily out of the joint.

A warning: Don't be tempted to roast your turkey in the oven all night at a low temperature. Roast it instead at 325° in the morning for a shorter time.

* * * * *

Plan the roasting time of your turkey so it's out of the oven 20 to 30 minutes before serving. This amount of time will allow the meat to absorb the juices, making it much more flavorful.

LOW PHOSPHATE DETERGENTS GIVE DIFFERENT RESULTS

Homemakers should be prepared to change their concept of cleanliness if they use low phosphate detergents, says University of Minnesota food microbiologist E.A. Zottola.

Many women will find that low or no phosphate detergents produce different results than they were accustomed to with their old detergents. Dishes and clothes may not look as white and sparkly as they did with the high phosphate detergents, but they will be clean, Zottola says.

Housewives who use excessive amounts of low phosphate detergents to get the same "clean look" they had with high phosphate cleaners defeat the purpose of using the low phosphate product. The phosphate from detergents containing less of the chemical may still create pollution problems. And, if homemakers use greater quantities pollution problems may actually be increased, Zottola emphasizes.

If you have a cleaning problem with low phosphate detergents you may wish to check the hardness of your water supply. Hard water reduces the efficiency of a detergent and makes cleaning more difficult. Softening your water supply may help solve your cleaning problem.

Department of Information and Agricultural Journalism Institute of Agriculture University of Minnesota St. Paul, Minn. 55101 Tel. 373-0710 Nov. 10, 1970

Immediate Release

MINNESOTA DELEGATES NAMED TO NATIONAL 4-H CONGRESS

Thirty-four Minnesota 4-H'ers are among 1650 youth representing nearly 4 million 4-H members in the nation, 15 to 19 years of age, who have been awarded trips to the 49th National 4-H Congress Nov. 29 to Dec. 4 in Chicago.

Trips to 4-H Congress are awarded in recognition of the achievement, development and growth members have made in projects, demonstrations and leadership, says Leonard Harkness, state leader of 4-H and youth development at the University of Minnesota.

These young people will compete for national honors, including scholar-ships provided by business firms and foundations, which are also donors of the expense-paid trips to the 4-H Congress. Two hundred eighty-six scholarship winners will be announced who will share some \$166,700 in educational grants.

Paul Cashman, vice president for student affairs at the University of Minnesota, will speak on the theme of this year's 4-H Congress, "We Care," at the opening assembly Sunday afternoon, Nov. 29.

Named recipients of national awards of trips to Club Congress are Becki Hermes, <u>Fairmount, N. D.</u> (Wilkin County), for her achievements in veterinary science projects: Michael Sax, <u>Donnelly</u>, for his work in field crops, and Wendy Lee Martens, <u>Lafayette</u>, for her dairy projects.

Delegates who will receive trips to Chicago as state winners, and the projects in which they have won their awards, are: Dan Barka, Litchfield, and Bette Jean Grossman, Esko, achievement; Clinton Halverson, Plato, agriculture: John Holmquist, Pequot Lakes, automotive: Kent Larson, Mabel, beef; Doraine Koehntop, Morris, bread: Cynthia Christenson, Northfield, clothing: William Santi, Iron, poultry.

Lowell Thompson, Ada, community beautification: Lucinda Hruska,

Waterville, conservation: LaDonna Raskob, 14816 County Road 6, Minneapolis,

consumer education: Colleen Cameron, Hallock, dairy foods: Becky Tank,

Cottage Grove, dress revue: Joseph Ruether, Red Wing, electric: Dona

van Kotula, Clarissa, entomology: Cherryl Kay Jostad, Brownsville, food

and nutrition: Janet Hanson, Owatonna, food preservation: Jane Thorston,

Springfield, health: Judy Jensen, Glencoe, home improvement.

Beverly Jensen, <u>Farmington</u>, home management; Noel Larson, <u>Preston</u>, horse: Alan Johnson, <u>Elmore</u>, horticulture; Bonnie Jean Brandt, <u>Roseau</u>, and Kenneth Walker, <u>Faribault</u>, leadership: Marlys Edwards, <u>Utica</u>, livestock; Mary Ferden, <u>Utica</u>, petroleum power; Jeffrey Bittner, <u>Lucan</u>, photography: Paul Houglum, <u>Perley</u>, safety: Craig Fields, <u>Jasper</u>, sheep: Daniel Hoffmann, <u>New Ulm</u>, shop: David Dose, <u>Glencoe</u>, swine.

Adult chaperones are Juanita Fehlhafer and Dan Lindsey, assistant state leaders, 4-H and youth development, University of Minnesota: John Ankeny, Watonwan County extension agent, St. James; and Mrs. Ruth Kent, Itasca County extension home economist, Grand Rapids.

Arne Østeby, secretary-general of 4-H clubs in Norway, and John Abakah, state leader of 4-H in Ghana, will also accompany the group.

Department of Information and Agricultural Journalism Institute of Agriculture University of Minnesota St. Paul, Minn. 55101 Tel. 373-0710 Nov. 10, 1970

Immediate Release

GOOD SURFACE DRAINAGE HELPS PREVENT WET BASEMENTS

Recent rains may cause wet basement problems, and homeowners should carefully check basement walls for wet spots.

It may also be necessary to move furniture and storage boxes if water collects on the basement floor, suggests Roger Machmeier, University of Minnesota extension agricultural engineer.

He says now is a good time to identify where wet areas are likely to develop in your basement.

There can be many reasons for wet or damp basements, but homeowners can often correct the wet basement problem by maintaining good surface drainage around the foundation of the home, Machmeier says. Also, checking the surface drainage around your home this fall could help keep your basement dry come snow melt next spring.

Carefully tamp and compact all backfill next to the foundation wall. The top 12 inches of soil around the concrete wall of the home should be a heavy silt or clay, Machmeier says. This type of soil restricts the movement of water through it and surface water will tend to run off before it soaks into the soil.

There should be at least 6 inches of drop from the soil surface at the foundation wall to a point one foot beyond the drip line of the eaves. The top soil should be firmly compacted and planted to grass, if possible.

Shrubbery planted close to the home which has a mulched surface to provide for aeration also allows surface water to enter the soil. This water may move down through the soil along the foundation wall and seep into the basement.

In some cases excess water around the foundation is drained off by tile lines outside the wall or by pipes installed inside the basement wall. Check with local zoning ordinances to see if this water can be drained into sewer lines.

Drainage water may also overload in individual septic tanks and soil absorption systems, so it may be necessary to collect the drainage water in a sump and pump it to the surface away from the building.

A watertight basement is best assured by proper construction, Machmeier emphasizes. USDA Home and Garden Bulletin No. 115, "Making Basements Dry," describes construction methods and other techniques helpful for maintaining a dry basement. Write for a copy to the Bulletin Room, University of Minnesota, St. Paul, 55101.

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MINNESOTA 4-H CLUBS WIN CERTIFICATES FOR HEALTH ACTIVITIES

Ten Minnesota 4-H clubs have been awarded certificates for their learning experiences and outstanding participation in community health activities.

The 4-H clubs are: Happy Hillside, Becker County; Sugar City,

Carver County; Golden Gophers, Chisago County; Game Birds, Chisago County;

Rutland Rustlers, Martin County; Hendrum Hustlers, Norman County; Mighty

Mites, Redwood County; Everglad, Stevens County; Burtrum Boosters, Todd

County; Bois de Sioux, Traverse County.

The clubs worked in groups conducting community service projects, according to Dan Lindsey, assistant state leader, 4-H and youth development at the University of Minnesota. They took part in charity drives, sponsored immunization clinics, scheduled discussions on smoking and alcohol and initiated many volunteer projects at state hospitals and nursing homes.

Speeches and demonstrations by community and club leaders, as well as the 4-H'ers themselves, on such topics as nutrition, smoking, alcohol, and posture made the 4-H'ers more aware of the importance of good health.

Individual members evaluated their own health habits and then set goals to improve poor health habits.

Certificates to the winning clubs are donated by Eli Lilly and Company, Indianapolis, Indiana.

U SCIENTISTS STUDY NEW GRAZING SYSTEM

A study completed recently at the University of Minnesota shows that forward-creep grazing is no better than the conventional grazing system now used by Minnesota farmers.

Forward-creep grazing, a type of grazing which allows lambs to feed ahead of their dams, was studied to see if it would improve weight gains of suckling lambs, reduce parasite infestation or increase the carrying capacity of a pasture.

Animal scientist R.M. Jordan and agronomist G.C. Marten used eight pastures, each divided into four paddocks to compare the two grazing systems.

In the conventional grazing pasture, the ewes and their lambs were confined to a single paddock for one week, before being rotated to another, the researchers say.

In the forward-creep grazing pasture, the ewes were confined to a single paddock for a week, while their lambs could graze either of two paddocks.

This allowed the lambs to be continually exposed to the best quality new forage growth while ewes were forced to consume the bottom growth refused by the lambs, they explain.

Forage under the conventional system was given fourweeks to recover while forage under the creep-grazing system had only three weeks.

The three-year comparison involved a total of 114 lambs. The forward-creep grazing system did not increase average daily gains of lambs or lamb production and it did not reduce internal parasites, they said. Forward-creep grazing tended to reduce forage production and the ewes suckling lambs under forward-creep lost more weight during the grazing season than ewes under the conventional system,

EASE IN SELECTING NUTRITIOUS DIET PREDICTED

It will be easier to select a nutritious diet by 1980 than it is today, according to Mrs. Patricia B. Swan, an associate professor in the Division of Nutrition of the University of Minnesota's School of Home Economics.

As the food industry gains more experience with processed, formulated foods and as the consumer becomes more aware of nutritional quality, foods marketed in the next 10 years will be more nutritionally complete than those marketed today or in past years.

Writing in the forthcoming special issue of Minnesota Science, the quarterly publication of the Minnesota Agricultural Experiment Station, Mrs. Swan explains: "With each food providing a better nutritional balance, it will be easier for the consumer to choose a totally well-balanced diet," Professor Swan said.

A recent U.S. Department of Agriculture survey of U.S. food consumption suggests that many people today are not selecting as nutritious a variety of foods as people selected 15 years ago. Concern over malnutrition has caused nutritionists to focus their sights a little more clearly on goals for the coming decade, she added.

add 1--nutritious diet

Diet excesses have become a recent concern. Professor Swan said it is believed that the high salt content of many baby foods and perhaps cow's milk itself might result in hypertension in later years. "Likewise, some evidence exists that a fast rate of weight gain in a young infant, particularly if the diet is high in protein, might result in more fat cells and consequently more body fat when he becomes an adult, " she added.

"In the next 10 years we will gain a much better understanding of the effects of nutrient excesses. It may be that in 1980 we will have guides to eating that give the desired range for nutrient intakes rather than a single figure based only on minimal needs.

"Nutritionists are highly optimistic about the decade we are entering-optimistic that it will bring great advances in the understanding and application
of the science of nutrition to permit us all to attain better health in our future
life," Professor Swan said.

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To all counties

4-H NEWS

Immediate release

TAKE STEPS NOW FOR SAFETY IN WINTER SPORTS

Winter sports in Minnesota are great fun and first-rate recreation, but sometimes they can be responsible for serious accidents.

Many of the accidents associated with winter sports can be avoided, however, by applying common sense, says County Extension Agent ______. The first common-sense rule is to get all equipment into A-one condition. This should be the responsibility of parents or of young people old enough to take care of their equipment. If you--or younger members in the family--plan to go sliding, skiing or skating, ask yourselves these questions:

- . Is the steering mechanism of the sled in good shape? Does it respond quickly to the hand directing it?
- . Are ice skate blades sharp enough so you won't find yourself partly immobilized when you skate around the rink? Do the shoes fit properly? This is important because balance is affected if the feet don't have enough room and the shoe doesn't hug the ankle properly.
- . Are skis the right length for the height of the user? Do the boots fit well? Does the binding holding the boot to the ski hold fast? Are ski pole loops secure? Skate, slide and ski in proper surroundings. A supervised skating rink is better than an unsupervised lake which may not be thoroughly frozen. A hill in a park is better for sliding than a hill leading into the street where there is traffic. Skiing down a run that may have stumps or rocks too close to the surface is asking for trouble. It's also good sense not to try "fancy stuff" too advanced for you-particularly in skiing.

A final safety tip for the sports addict is to dress appropriately. Too tight pants which don't allow you to bend the knees are a hazard to skater and skiier alike, and so are trailing scarves and masks that can slip and obscure vision. These easy-to-follow common sense tips can help cut down the number of accidents during the winter sports season.

To all counties

ATT: Extension Home Economists

Immediate release

COOK VENISON LIKE LEAN BEEF

Good advice to follow if you've never cooked venison before—and now suddenly are confronted with a deer your husband has bagged—is to cook it like lean beef of similar age.

Tender cuts like the loin and rib may be broiled or oven roasted. Pot roasting or braising with moist heat is recommended for cooking venison from older deer and for the less tender cuts from younger animals.

Verna Mikesh, extension nutritionist at the University of Minnesota, gives these further tips on cooking venison:

- . Don't overcook it. Deer meat has short fibers that toughen quickly when overcooked or cooked at too high a temperature. When oven roasting venison, use a 300°F. oven. Serve venison medium to well done rather than rare or overdone.
- . Remove all venison fat before cooking or before freezing. The gamey flavor is most pronounced in the fat. Because venison fat turns rancid quickly, it's very important to trim fat closely on venison to be frozen.
- . Add a moistener, since venison is a dry meat. Beef fat or salt pork may be added for self-basting, or cover the surface of the venison with strips of bacon or a fat-soaked cheesecloth.
- . Always serve venison very hot on hot plates. Like lamb fat, venison fat hardens quickly when it starts to cool and is unpleasant to eat at that stage.
- . If you like a less gamey flavor, cover the meat with vinegar water--2 tablespoons vinegar to a quart of water--and let it stand for about an hour before cooking. Soak tough meats in a marinade before cooking.

For more information on cooking venison and other game animals get a copy of "Game Animals from Field to Kitchen" at the county extension office.

To all counties

Immediate release

HOME FIRE DRILLS CAN SAVE LIVES

Cold winter weather means increased fire hazards from furnaces and heaters, and a planned fire escape routine could prove to be a lifesaver.

Regular home fire drills can help reduce panic in the event of a home fire, says County Extension Agent

Here are a few rules to follow:

- * Make sure each family member knows at least two escapes from every room.
- * Sleep with the door closed--it provides a barrier from fire. Teach children not to open hot doors since they usually indicate a fire.
 - * Show children how to crawl on the floor to avoid rising gases.
 - * Know how to remove screens and storm windows quickly.
- * Train everyone to vacate the house the minute you notice smoke or fire. Don't waste time dressing or saving valuables.
 - * Never re-enter a burning house.
- * And, have a predetermined spot for everyone to meet so that you can account for every family member.

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To all counties

Immediate release

WATCH FOR DANGER SIGNALS WHEN SELLING STOCK

Livestock producers acting as their own agent when selling cattle should watch for danger signals to avoid insolvent buyers.

Minnesota is fortunate in having a large number of reliable packers, cattle dealers and auction companies, says Ken Egertson, extension economist at the University of Minnesota.

However, there's always the potential problem of an insolvent buyer, and Egertson says livestock producers should protect themselves by watching for these danger signals when selling livestock.

- * Any attempt to delay payment.
- * A request to use a post-dated check
- * A request for credit.
- * An attempt by the buyer to use a deferred payment draft.
- * Insufficient funds in the bank to cover the check.
- * The over-anxious buyer. Beware of the buyer who "must buy today."

You may want to have your banker check the buyer's financial condition. In some cases it may be advisable to draw up a sales contract, Egertson says.

Always insist on prompt payment, and if payment is made on a bank draft, have your banker verify the draft. Finally, notify the USDA's Packers and Stockyard's Division if you get a bad check or if payment is delayed. The address is Packers and Stockyard's Division, United States Department of Agriculture, Post Office Building, South St. Paul, Minnesota, 55075. Telephone 451-6897.

To all counties

Immediate release

USE APPROVED DAIRY CLEANERS

Dairy farmers should proceed with caution if they're thinking about switching to a low or no phosphate detergent to clean bulk tanks and milking equipment.

Phosphates carry out specific cleaning functions in a dairy operation and at this time no satisfactory replacement has been found, says E. A. Zottola, University of Minnesota extension specialist in food microbiology.

Household detergents should not be used for cleaning milking equipment, Zottola adds. These detergents are not made up for the heavy duty cleaning needed to clean a bulk tank.

In addition, household detergents contain perfumes which may flavor the milk and the high suds obtained with these products may create problems. For the most efficient cleaning job, use detergents made up specifically for cleaning bulk tanks and milking equipment.

If you have a cleaning problem, your chief trouble may be water hardness. Hard water makes cleaning more difficult and can leave mineral deposits on your equipment. Soft water eliminates some of these problems and makes cleaning somewhat easier.

To all counties

ATT: Extension Home Economists

Immediate release

WE LIVE IN DRUG-USING SOCIETY

Older people who have difficulty understanding involvement of youth with drugs should remember that Americans have become a nation of pill takers—and that they themselves probably take drugs of some kind.

So says Ronald Pitzer, extension specialist in family life education at the University of Minnesota.

At least a fourth of the people in the United States take drugs to help them get through the day, according to recent research. These are not junkies addicted to hard narcotics nor bearded hippies tripping on LSD. They are ordinary middle-class people who take pills to sleep, to keep calm or to stay awake.

These pills—available either by prescription or without it—are called psychotropic drugs. They are of three kinds: sedatives, tranquilizers and pep pills—the latter to keep you awake and help you lose weight.

Research shows that women are much heavier users of these drugs than men, and that white people are twice as likely to be taking psychotropes as blacks. The percentage of users increases with income. The percentage of women taking drugs was 26 percent if their incomes were under \$5,000 but 42 percent if their incomes were \$10,000 or more.

Adults, not young people, are the main consumers of tranquilizers, pep pills, addictive sleeping pills, brain damaging drugs like alcohol and cancer-producing agents like cigarettes. Even the commonly used drug caffeine in coffee, tea and cola is a wake-up drug.

add 1--drug using society

All of these drugs are widely used by old and young for a variety of reasons-for a change of pace, to change mood, to reduce anxiety, combat fatigue, relieve
tensions or boredom, facilitate social interaction, to sleep, for a pickup or just
for fun.

"It is time for a clearer perspective," says Pitzer, "when there is such widespread adult perplexity and panic over youthful experimentation with hallucinogens in a society that spends more money on alcohol, tranquilizers and sleeping pills than it does on education, social welfare, poverty and environmental quality."

To all counties

Immediate release

IN BRIEF

Select Hybrids on Basis of Record. Select hybrids for 1971 planting on the basis of their resistance to southern corn leaf blight this year, suggests Herbert G. Johnson, extension plant pathologist at the University of Minnesota. Only a few Minnesota fields had more than light to trace amounts of southern leaf blight, and the disease had no effect on production in such fields. The rare fields in Minnesota that had heavier infections were most likely the most susceptible hybrids, and these hybrids will probably be discarded by seed companies. Remaining hybrids should be good for 1971 plantings in Minnesota.

* * * *

Corn Leaf Blight Next Year? Southern corn leaf blight should be less serious in Minnesota next year, according to Herbert G. Johnson, extension plant pathologist, University of Minnesota. He bases his estimate on three main factors.

- * The most susceptible hybrids will be eliminated or reduced in quantity.
- * The fungus is not likely to survive in the field in Minnesota.
- * And, a more normal season weatherwise would be less favorable for the fungus, compared to last year. The 1970 season was abnormally warm and moist, which favored the disease.

However, Johnson says there are many other factors involved, and his prediction of less leaf blight next year could be wrong.

* * * *

add 1--in brief

House Plant Bulletin Available. House plant enthusiasts will find a wealth of information in a revised University of Minnesota publication, Extension Bulletin 274, entitled "Care of House Plants." Topics dealt with in the revised bulletin include plant culture plus insect and disease control. There are special sections for flowering, fruiting and foliage plants and suggestions for growing plants under special conditions.

Get a copy of the bulletin from your county extension office, or write to the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

* * * *

Consumers Gain From Farm Efficiency. Increased farm efficienty during the 1960's helped keep food costs in check. The American farmer produces over 20 percent more on 6 percent fewer acres now than he did in 1957-59.

In 1969, one U. S. farm worker supplied food and fiber for 45 persons. He supplied 23 in 1957-59. And, output per man-hour on the farm increased 82 percent between 1957-59 and 1969.

* * * *

Immediate Release

TWO YOUTH LEADERS FOR NORWAY IN MINNESOTA

Two youth leaders from Norway are in Minnesota studying 4-H work as it is organized and carried on here.

They are Arne Østeby of Asker, secretary-general of 4-H in Norway, and the Reverend Eirik Guldvog of Baerum, Norway.

They will be in Minnesota until Dec. 10, studying and observing 4-H work in urban areas, short-term 4-H projects, 4-H expansion to new clientele, the 4-H ambassador public relations program, leadership training and industry support of 4-H.

Østeby heads an organization of some 12,000 4-H youth in Norway. He has been 4-H secretary-general for 16 years. He is also chairman of the European committee of Young Farmers and 4-H clubs whose purpose is to exchange ideas and provide cooperation among north European youth program leaders. One of Østeby's interests is to initiate an exchange program between 4-H youths in Minnesota and Norway.

Since his arrival he has visited the National 4-H Service Committee in Chicago and the Kellogg Foundation in Battle Creek, Michigan. The Kellogg Foundation is funding a five-year 4-H leader training program in Norway.

The Rev. Mr. Guldvog works with 4-H and other youth organizations in the suburbs of Oslo. Prevention of juvenile delinquency is the primary emphasis of his work. He has been a prison chaplain in Norway, a seaman's pastor in Copenhagen and worked with refugees in Europe after World War II. While here he will observe youth work in the inner city.

Immediate Release

SOME TIPS ON TURKEY STUFFING

How do you like your turkey dressing -- dry and fluffy, or moist and rich?

Some purists insist that stuffing should consist only of grated day-old bread, onions, melted butter and sage. Others add chopped giblets, oysters, chestnuts, celery, green peppers, cranberries or raisins.

Whether you like your dressing dry and fluffy or moist and rich, homemade bread makes the best poultry stuffing, in the opinion of Verna Mikesh, extension nutritionist at the University of Minnesota. It will always remain light and fluffy. Regular commercial white bread makes a sticky stuffing unless you grate the day-old bread and use only butter for moisture, Miss Mikesh says.

If you like moist stuffing and have no homemade bread, bake a pan of cornbread and mix it with the commercial bakery bread. Add celery and onion with butter, eggs and broth to moisten it.

Allow about 1 quart of bread cubes or shreds for every 4 pounds of turkey.

Immediate Release

GUIDES GIVEN TO BUYING TURKEY

Turkey is an excellent buy for Thanksgiving, but how do you decide what size bird? And how do you know you're getting good quality?

The best way to figure how large a bird you need is to allow about 1 pound of raw turkey for each person being served, says

Verna Mikesh, extension nutritionist at the University of Minnesota.

That amount will give generous servings and provide adequate leftovers for later meals Since a large turkey has more meat on it, pound for pound, you may want to cook a big bird and freeze leftovers for future casseroles, salads and sandwiches. If you don't want leftovers or meat to freeze, allow about 3/4 pound per person.

Your guide to quality is to select a turkey in a wrapper which carries the USDA Grade A label. Grade A birds are well fleshed with all their parts.

Look for frozen birds in clean fresh wrappers. Be sure there are no tears in the packaging material. Cooking directions will be included on the package.

Some turkeys will be internally basted, others will have built-in thermometers, still others may have leg tendons removed. These extra services, of course, will add to the price.

Turkeys without a grade designation are sometimes marketed under private labels. These occasionally have parts missing such as a wing. Turkeys with slight skin tears or parts missing may be especially good buys.

Immediate Release

PRECAUTIONS ON PREPARING TURKEY

If you're concerned about the health and safety of your family, don't cook turkey in a slow oven all night long or stuff it the day before you cook it.

Both are questionable practices, says Verna Mikesh, extension nutritionist at the University of Minnesota. They are not recommended by the U.S. Department of Agriculture, the Turkey Federation, turkey processors or departments of health and other organizations concerned with food safety.

Bacteria grow best in a warm, moist place like the inside of a turkey. Since it takes a long time to heat the turkey all the way through, especially when it is stuffed, bacteria can be growing when either of the two practices in question are followed.

Stuff the turkey just before it goes into the oven, the University nutritionist advises, and cook the bird at 300 to 325° F. until the drumstick can be moved up and down easily or until a meat thermometer in the turkey registers between 180 and 185° F.

Department Of Information and Agricultural Journalism Institute of Agriculture University of Minnesota St. Paul 55101 Tel. 373-0710 November 17, 1970

HORTICULTURAL SOCIETY ELECTS OFFICERS, ANNOUNCES AWARDS

Vincent K. Bailey, 360 South Lexington Parkway, St. Paul, has been elected president of the Minnesota State Horticultural Society. He succeeds Kenneth W. Fisher of South St. Paul in that office.

Phillip H. Smith, 4328 Coolidge Avenue, Minneapolis, was elected vice president.

Re-elected to the executive board were Mrs. Leonard Schmidt,

Okabena and Mrs. Ray Schwingler, Atwater.

Election results were announced by Eldred M. Hunt, secretary of the Horticultural Society.

Thirty-two award winners for 1970 have also been selected. Certificates and citations for special achievement in gardening and horticulture will be presented by the society.

Award recipients are:

Honorary Life membership -- Mrs. Robert S. Bryant, Hopkins:
Mrs. Omar Holden, Houston: Mrs. G. Victor Lowrie, 2107 Glenhurst Ave.,
Minneapolis: and Mrs. Harry D. VanBuskirk, 286 North McCarron's Blvd.,
St. Paul.

Bronze Medal -- Orrin C. Turnquist, 1459 Hythe St., St. Paul.

add 1 -- horticultural society

Distinguished Service Certificate -- Mrs. A. E. Eske, Litchfield; Mrs. Roy E. Helm, 5701 Bernard Place, Edina; Mrs. Clarence Lepinski, Brainerd; Mr. and Mrs. Como Pontliana, Duluth; and William S. Sweeney, 5122, Chicago Avenue S., Minneapolis.

Award of Merit Certificate -- Mrs. Robert R. Allison, 11031 Washburn Ave. S., Bloomington; Bernard B. Crandall, Anoka; Charles Elvig, Brainerd: Mr. and Mrs. Gust Fenske, Blue Earth; Mrs. Eugene Giese, Lake George: Marlin Gilhousen, 6738-15th Ave. S., and Wilfred Krueger, 6301 4th Ave. S. Richfield; Mrs. Carl Green, and Mrs. Norton Nelson, Thief River Falls: Henry Johnson, Eveleth; Mrs. Edward Leddige, Badger; Mrs. Stanley Muckle, Owatonna; E. Lucille Munholand, Little Falls; Mrs. E.C. Nelson, 6660 Argenta Trail W., and Mrs. Robert Reyer, 1706 Barclay St., St. Paul; Mrs. J.E. Perkins, St. Cloud; Mrs. Walter Siems, Williams; Mrs. Alice Foss Stenoien, 6045 St. Croix Ave., Minneapolis; Earl E. Tesca, Rochester; Ralph E. Wagner, Duluth; and Ronald Weinhold, Little Sauk.

Immediate Release

4-H'ERS RECEIVE AWARDS FOR OUTSTANDING 4-H WORK

Five Minnesota 4-H'ers have been recognized for their outstanding work in the citizenship, dairy, dog, grain marketing and veterinary science projects.

Sandra Lake, Aitkin, Aitkin County and Duane Samuelson, Kensington,
Douglas County, have been awarded certificates for their work in citizenship.
Some of their activities include donating their time for community service
projects, serving as officers in their local clubs and serving on local and
county 4-H committees. The certificates are donated in memory of Thomas
E. Wilson.

Wendy Lee Martens, <u>Lafayette</u>, will receive a \$50 U.S. Savings bond for achievements in the dairy project. She has been Nicollet County 4-H federation president and secretary, attended the Citizenship Short Course in Washington D.C., received the Key Award, was State Holstein Girl in 1969 and has shown considerable profit from her dairy herd management. White Farm Equipment, Hopkins, Minn., donated the bond.

Lori Beversdorf, Eden Prairie, Hennepin County, was awarded a transistor radio for her activities in the dog project. She organized a local dog show, trained her own dog and helped other 4-H'ers in her club train and groom their dogs for the county fair. The award is sponsored by the Ralston Purina Company.

add 1--4-h awards

Bruce Ness, Albert Lea, was selected to attend the National 4-H
Grain Marketing Conference in Chicago during January. He has been
president of the Freeborn County 4-H federation, received the key award,
and attended the Citizenship Short Course in Washington, D.C. The trip
is sponsored by the Board of Trade of the city of Chicago.

Mary Sundblad, <u>Kensington</u>, will receive a \$50 U.S. Savings Bond for her work in the veterinary science project. The project encourages 4-H members to develop an appreciation for the importance of using good management and sanitation practices in maintaining healthy birds and animals. The bond is donated by the Upjohn Company of Kalamzoo, Michigan.

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Department of Information and Agricultural Journalism Institute of Agriculture University of Minnesota St. Paul 55101 Tel. 373-0710 November 23, 1970

MECHANIZED LOGGING-STRIP THINNING FOUND COMPATIBLE

Strip thinning by using heavy logging equipment may be the best method of thinning some 200,000 acres of red pine in northern Minnesota expected to be available for harvesting during the next 10 years.

That's what University of Minnesota forester Z. A. Zasada and U.S. Forest Service forester John W. Benzie say in a recent publication published by the Minnesota Agricultural Experiment Station.

If carefully planned, strip thinning can increase the multiple use potential of the land, they say. The logged strips have potential use for wildlife openings, overflow campgrounds and hunting sites. The strips can also be oriented to increase snow accumulation and delay snowmelt for watershed purposes.

Strip thinning causes a minimum amount of disturbance to the forest and leaves it in a condition adaptable to future thinnings by individual tree selection or additional strips, the foresters say.

Strip thinning coupled with mechanized harvesting can be used for harvesting timber in a sensitive areas, such as scenic zones and recreation areas, they say. They add that careful harvesting under winter conditions would cause less disturbance than summer logging.

The foresters tested strip thinning on a 20 acre stand of red pine in the Chippewa National Forest in Itasca County, Minnesota.

The timber was cut in parallel strips 16 feet wide while 50 foot wide strips of the forest were left untouched.

Half of the stand was logged leaving the trees full-length until they reached the landing. The other half of the stand was cut and limbed before being yarded to the landing.

While full tree skidding exposed more of the mineral soil, either method did minimal damage to the forest.

Of the 729 red pine trees felled and skidded, only 5 fell outside of the strips.

Only 7 of the remaining trees were noticably damaged.

Copies of the research publication are available from the Bulletin Room, University of Minnesota, St. Paul, Minnesota, 55101. Ask for Miscellaneous Report 97, Forestry Series 8, 1970, "Effect of Mechanized Tree Harvesting on Jack Tree Regeneration Requirements."

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Department of Information and Agricultural Journalism Institute of Agriculture University of Minnesota St. Paul 55101 Tel. 373-0710 November 23, 1970

Immediate Release

FREEZE AHEAD FOR HOLIDAYS

A food freezing spree now may prevent a hectic last-minute rush before the holidays.

But before you start, consider carefully the type of entertaining you expect to do during the holiday season to help you determine what you should bake and freeze ahead of time, suggests Mrs. Shirley Munson, food scientist at the University of Minnesota.

Whatever you freeze, be sure to use good freezer wrapping or good freezer containers if you want the baked foods to keep successfully, she adds. And don't frost breads, cakes or cookies until they are ready to use, since frosting dries out in freezing.

Here are some of the foods Mrs. Munson suggests preparing in advance and freezing to save time later:

- . Breads, plain and fancy rolls. Now is the time to bake some of the nationality breads that are traditional at Christmas time. Package in a saran-type film, polyethylene bags or in heavy-duty aluminum foil. Thaw in the original wrapper at room temperature.
- . Unfrosted bars and cookies of all kinds. Store them in tin cans, with sheets of saran-type film or aluminum foil between layers to prevent drying out.

add 1--freeze ahead

- . Cookie dough. Shape the dough for refrigerator cookies into the desired size and shape and wrap in freezer paper. When ready to use, remove from the freezer, slice with a sharp knife and bake.
- . Baked pies, chiffon pies, baked and unbaked pie shells, graham cracker and cookie crusts. Fresh fruit, pumpkin, mince and chiffon pies all freeze satisfactorily. When ready to use a frozen baked fruit pie, let it stand at room temperature for a half hour; then heat in a 350° F. oven on the lowest shelf until the pie is warm.

To prevent chiffon pies from "weeping" during thawing, always include beaten egg white or whipped cream in the mixture. Never thaw chiffon pies in the oven. Avoid keeping more than a month since they will toughen after that time.

Do not freeze meringue toppings on pie.

- . Homemade candies. Store in tin cans or use moisture-vaporproof wrapping over boxes. To prevent chocolate from turning white or
 condensation on the candy, don't remove the wrap until the candy has warmed
 to room temperature--about 4 to 8 hours.
- . Fruit cake. When tightly wrapped or kept in a tin can and frozen, fruit cake will keep indefinitely. It will also keep well in the refrigerator.
- . Casserole dishes and baked beans. It's best to undercook foods to be frozen in combination dishes. Dishes containing macaroni, spaghetti, noodles or rice freeze well, but diced or cubed potatoes become mushy. Meat and sauce combinations for Italian spaghetti, Spanish rice and chow mein may be frozen separately, then added to other ingredients when reheating.

Department of Information and Agricultural Journalism Institute of Agriculture University of Minnesota St. Paul 55101 Tel. 373-0710 November 23, 1970

Immediate Release

LEAVING TURKEY ON COUNTER FOR NIBBLERS IS A NO-NO

Leaving the leftover Thanksgiving turkey on the counter may be a pleasant invitation for nibblers, but in the interests of health and safety, it's not a good idea.

Verna Mikesh, extension nutritionist at the University of Minnesota, suggests instead that as soon as possible after Thanksgiving dinner is over, separate the meat from the stuffing, cool and refrigerate them. Refrigerate at 36° to 38° F. and use the meat within two or three days. Gravy and dressing may be kept safely in the refrigerator up to four days. Serve the dressing and gravy promptly after heating because bacteria grow rapidly on poultry products held at room temperature.

For prolonged storage, freeze the turkey and dressing. Meat with broth or gravy will keep for 6 months at 0° F. If you wish to freeze sliced turkey and dressing, wrap separately in heavy-duty aluminum foil.

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To all counties
4-H NEWS
Immediate Release

SEW YOUR WAY INTO HIS HEART

Why don't you put your sewing talents to use for the men in your life? Brothers, fathers, uncles, grandpas and boyfriends will marvel at even your simplest sewing skill and proudly wear each article specially made for him.

Men's styles are no longer associated with traditional drabness and uninteresting lines. Today men are wearing bright colors, eye-catching stripes, houndstooth checks and wide herringbones. The fabric choices are endless and many companies are featuring patterns for men's clothing this fall. You can find patterns for men's ties, slacks, sports coats, shirts, vests, pajamas, robes and entire suits.

Maybe your boy friend's pulse rate goes up when he sees the new wide, colorful ties. You can create a 4-inch wide tie to fit his special personality with just 3/4 yard of fabric. Compare the cost of the material with the price of a purchased tie and you'll realize how much money you can save, too.

Brothers practically never have enough shirts, so why not surprise them with something you have created at the sewing machine? You can really use your imagination when choosing shirt material. Brilliant stripes, geometrics and prints will give them pizazz wherever they go. Also monotone stripings—shadow on pearl or chocolate on sand and dobby patterns are good this year. Choose patterns with deeper cuffs, longer collars and a tapered—to—the—body fit that will make your brother or boy friend look neat and trim.

add 1 -- men's clothing

Properly fitting slacks are a problem for many men. Many tall guys cannot find slacks that are long enough. Other guys have average hip and waist measurements but heavy legs. Any number of figure problems may force many men to pass-up the new flared slacks because they don't fit properly. Here's your chance to give your favorite male a really good fit with exactly the amount of flare he wants.

If you really feel ambitious, why not tailor a suit for that special guy? You can choose stripes, checks, windowpanes, herringbone or houndstooth patterns for the suit of the Seventies. Remember that vents are higher and lapels sweep farther to set off their wide notch or peak cuts. The versatile knit has also been captured by men's fashions this fall. Knit sport jackets are countrified with patch pockets and brass buttons—great for town, suburb or country.

For that final personal touch, you may want to purchase sew-in tags that say the garment was fashioned exclusively by you. Have fun sewing and be prepared for many compliments from the men in your life.

To all counties

ATT: Extension Home Economics

Second in series on drugs

WHY DO PEOPLE TAKE DRUGS?

Parents who fear or know that their sons or daughters are taking drugs ask "why?"

Ronald Pitzer, extension specialist in family life education at the University

of Minnesota, gives some answers that may help parents understand.

Young people take drugs for a variety of reasons, many of them for the same reasons behind adult use of such drugs as alcohol, caffeine (coffee), nicotine (cigarettes), aspirin and tranquilizers, according to Pitzer.

But the reason a young person takes drugs initially may be quite different from the reason he continues to take them, Pitzer says. The occasional marijuana smoker is quite a different person from the continual smoker.

From childhood Americans have been "socialized" to taking drugs by the mass media. Advertising suggests that pills of various kinds will release tension or give relief from all manner of ills. Thus the reaction to drugs is one that has been learned over the years.

Although reasons for taking drugs will vary from one person to another and from one drug to another, Pitzer lists these as some of the other specific answers to the question "Why do young people take drugs?":

Curiosity. This is one of the main reasons middle class youths take drugs. Curiosity leads to many kinds of experimentation, including use of drugs "just to see how it feels."

add 1--why do people take drugs?

- . Peer pressure. The pressure of friends "to get with it" and "try it just once" is probably one of the major reasons youths take drugs. In certain groups, taking drugs is the thing to do.
- . Sign of rebellion. For some youths, rebellion against adults is very important, especially in the early teen years when they get satisfaction in being independent of and appalling to adults. Rock music, teen fashions and smoking marijuana seem to be three things youths use to upset adults.
- . Fun. "I get a kick out of it," say youngsters. They may find pleasurable and increased sensitivity to the environment and some of the other sensations from drugs.
- . Mark of sophistication. Smoking marijuana seems to have become a sign of sophistication or adulthood.
- . Search for a change in personality. Adults as well as youth often look for a way of improving their personalities. If youths feel inadequate in personal relationships, they may feel that drugs will make them freer to talk and to get good grades.
- . Escape. Drugs offer an escape from frustration, pressures and a world with which youth is disillusioned.

To all counties

ATT: Extension Home Economists

Immediate release

MEAT TENDERIZERS ARE SAFE, USEFUL

Are meat tenderizers safe to use?

Yes, because the enzyme or tenderizing material is destroyed by heat or by digestive juices, says Verna Mikesh, extension nutritionist at the University of Minnesota.

Occasionally you hear people say that they are afraid to use meat tenderizers for fear they will eat holes in the stomach.

If that were true, the Polynesians would be a race with perforated stomachs, Miss Mikesh says, for they have used tenderizers for years. In fact it was the Polynesians who discovered that papaya juice has a tenderizing effect on meat.

Other plants that contain meat tenderizing materials are pineapple and mushrooms.

The Food and Drug Administration gives the assurance that the meat tenderizers are safe, natural substances that serve a useful function in making certain cuts of meat and game more palatable.

So when you sprinkle tenderizer on a steak or marinate it in a tenderizing solution, don't worry about it. It's harmless.

To all counties

Immediate release

SEED, FERTILIZER CHE11CAL DEALERS IN COUNTY TO MEET

Retail dealers of seed, fertilizer and agricultural chemicals in
County will meet Januaryat theinaccording to County (place) (town)
Extension Agent
The program is sponsored by the University of Minnesota Agricultural Extension
Service and will be presented by extension specialists in agronomy, plant pathology,
soils and entomology.
Its purpose is to acquaint dealers with the latest research findings and
recommendations in the areas of crop varieties, soils, fertilizers, insect, weed and
disease control, and agricultural chemicals.

The complete schedule of retail dealer meetings is as follows:

Date	Town	Meeting Place
January 4	New Ulm Willmar	Eibners, downtown Freda's Bord, Highway 12 & 6th Street, downtown
January 5	Mankato Montevideo	Inn Towne Motel, downtown Hunt Hotel
January 6	Rochester Slayton	Holiday Inn Club Royal
January 7	Owatonna Fairmont	Eagles Club, 141 East Rose Agricultural Center, 2423 Albion
January 11	Cambridge Hutchinson	Imperial Re sta urant, north side of town Velvet Coach
January 18	Alexandria	Holiday Inn

add 1--seed, chemical

Date	Town	Meeting Place
January 19	Moorhead	Holiday Inn
January 20	Thief River Falls	Eagles Club
January 21	Park Rapids	Citizens National Bank

At Park Rapids, the meeting will be from 1 p.m. to 5 p.m. All other meetings are scheduled from 3:30 until 9 p.m.

Retail dealers who would like further information on the meeting should contact their county extension agent.

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To all counties

Immediate release

GOOD TAX MANAGEMENT REQUIRES PLANNING

Farm income tax management opportunities arise from three basic situations, according to University of Minnesota extension economist, Paul Hasbargen.

- * When income varies from year to year, and tax rates also vary with the amount of taxable income.
 - * When not all income is taxable.
- * And, when tax regulations provide optional methods of reporting certain income and costs.

Livestock producers enjoyed a relatively good year in 1970, but 1971 won't be as prosperous. Meanwhile, tax rates are going down in 1971 since the personal exemption goes up \$25, the old 10 percent standard deduction goes up to 13 percent and the 2.5 percent tax surcharge is off. In addition, inflation continues so dollars will be worth less next year, Hasbargen adds.

This means that farmers should consider shifting sales into 1971 and expenses into 1970. This may save tax dollars in two ways. First, by shifting income from a high income year into what now appears will be a lower income year. And second, by shifting income into a year when the tax bite is lower.

A second strategy to consider in minimizing taxes is to use non-taxable exchanges or conversion options. Instead of a sale and repurchase, property may be exchanged for like property. The new tax law still allows exchange of animals of the same sex, but excludes exchange of animals of different sexes.

Likewise, the gain from the sale of a personal residence is not taxable if replaced within 1 year, or if new construction is started within 1 year and occupied within 18 months.

If you're over 65, you can exclude all gains up to \$20,000 on home sales.

add 1--good tax management

The third strategy consists of using reporting methods which will lower 1970 income. Faster depreciation, such as the "declining balance method" can result in deductions up to twice the "straight line method" the first year an asset is depreciated. You can switch to the straight line method in later years when the accelerated method is not advantageous.

Taxpayers may also claim an additional first year 20 percent depreciation on property with a useful life of 6 years or more. This additional first year allowance can be taken for the first year only.

Installment sales can reduce the tax rate on capital sales by spreading the gain over more than one tax year. However, no more than 30 percent of the selling price may be received in the year of the sale. Each payment is treated as part recovery of costs and part profit. This installment method includes real property and personal property sales of \$1,000 or more for assets such as breeding stock, machinery, personal auto and furniture.

The self-employed retirement plan can also be used to reduce 1970 income tax.

Ten percent of earned income up to \$2500 may be contributed by a self-employed person to a self-employed retirement plan.

You may also be able to itemize deductions instead of using the standard 10 percent deduction. If you're close to the amount allowed on the standard 10 percent deduction this year, you may be able to pay ahead on taxes, interest, medical and charitable contributions. Then next year you can use the higher 13 percent allowable standard deduction, Hasbargen says.

For more information, consult the Farmer's Tax Guide, which will soon be available at post offices and county extension offices. And for answers to the more important or complicated tax questions, consult an attorney, accountant or tax practitioner who's competent in tax matters or request the assistance of the Internal Revenue Service.

To all counties

Immediate release

TAX BRIEFS

Capital Gains on Livestock. Horses and cattle acquired after December 31, 1969 must now be held 24 months to qualify for capital gains treatment, as specified in the Tax Reform Act of 1969. However, other types of livestock such as sows and ewes still have a 1-year holding period.

* * * *

Hobby Farming Losses. The old "hobby farming" law limited deductible losses to \$50,000 per year, and this limitation applied only if losses from the business exceeded \$50,000 a year for 5 consecutive years. The new tax law changes the rule to disallow activities "not engaged in for profit." Any activity will be presumed to be engaged in for profit if the taxpayer has profits in 2 of 5 years, or 2 of 7 years for the horse business.

* * * *

Soil and Water Conservation Expenses. Old tax laws allowed expenses for soil and water conservation and for land clearing to be deducted, then capital gains could be taken on the land when sold. Under the new law, gain on the sale of farmland will be treated as ordinary income if sold within 5 years. If the land is held for 10 years or longer, the entire gain may be reported as capital gains. For sales between 5 and 10 years, part of the gain is treated as ordinary income and part as capital gains.

* * * *

Tax-Free Livestock Exchange. The Tax Reform Act of 1969 provides a clarification in the handling of tax-free exchanges of animals of different sexes. The Internal Revenue Service never did sanction the exchange of male calves for female calves as a tax-free exchange. Some taxpayers had called the exchange of a male for a female calf a tax-free exchange of like kind in order to postpone the tax and also to shift it from ordinary income to capital gains income. The new ruling says livestock of different sexes are not property of a like kind.

add 1--tax briefs

Income Averaging. Hore taxpayers are eligible for income averaging under the new rules. Persons whose averageable income for 1970 or any following year exceeds his average income for the four preceding years by \$3,000 may elect to use the averaging. Under the new rule, averageable income must be 20 percent higher than the average base period income. Before, averageable income had to be 33 1/3 percent higher. Also, long-term capital gains, and income from wagering and gifts are now included in averageable income.

Investment Credit. Although the 7-percent investment credit has been repealed, certain transitional rules apply. This credit will still apply where construction, acquisition or other investment takes place before April 19, 1969. However, no more than 20 percent of the investment credit carryover available at the end of 1968 may be used to reduce taxes in any one year. This means that if you had any credit carryover at the end of 1968, it will be at least 1973 until you are through with it.

Ordinarily any unearned investment credit must be recaptured if property on which the credit was claimed is replaced before 8 years, or if a shorter life was used for depreciation. But if the property is replaced by property of a like kind, the amount of recapture on the old property is reduced by the amount of credit that would have been allowed on the new property. The replacement property must be placed in service within 6 months after disposal of the old property. No investment credit recapture is required if the property on which investment credit was claimed is lost, stolen, damaged or destroyed by casualty.

* * * *

Reinvestment of Proceeds From Involuntary Conversions. The new tax law extends from one to two years the time allowed for reinvestment of proceeds from involuntarily converted property. Taxpayers now have two years after the end of the year in which any gain from the involuntary conversion is realized to invest in similar property. The taxpayer may elect not to report the gain if reinvestment is made with this replacement period.

add 2:--tax briefs

Recapture of Livestock Depreciation. The Tax Reform Act of 1969 requires that gains on the sale of livestock which are due to depreciation taken after 1969 must be taxed as ordinary income. It will now be impossible to get capital gain treatment on any gain from the sale of purchased livestock unless the selling price is more than the original cost or more than the undepreciated value as of January 1, 1970. This puts livestock on the same basis as machinery.

#

To all counties

ATT: Extension Home Economists

Third in series on drug use

EDUCATION NEEDED TO REDUCE DRUG ABUSE

How can parents help their children resist succumbing to the fanciful claims made for marijuana and other drugs? What can they do to discourage their children from trying drugs, or, if they have already tried them, from continuing their use?

Parents need to counteract the normal yearnings among teenagers seeking insight, love and thrills by offering genuine love, access to spiritual values and less dangerous means of excitement and adventure, says Ronald Pitzer, extension specialist in family life education at the University of Minnesota.

Parents have the earliest and strongest influence on children. They can build up in their youngsters the strength to withstand stress and the courage to experience life as it really is. Discipline tempered with love and understanding and the transmission of positive values are the means parents have to guard their children from harm. But children continue to need protection from hazards during the entire process of growing up. Although many parents refrain from giving positive directions to their teenagers, these young adolescents are actually more comfortable when limits are set, however much they may chafe at controls. They need support, comfort and advice from parents as they go through the physical and emotional changes of adolescence.

It is up to parents to teach their children the lessons of real life, to reinforce this teaching with appropriate discipline and to confirm it by love and understanding. It is also up to parents to stand by until the children's values and standards are thoroughly and firmly established, Pitzer declares.

add 1--drug abuse

If, as a parent, you find your child is taking drugs, don't panic, he advises. The youngster who tries smoking marijuana is less likely to be discouraged by his parents' anger or punishment than by a calm and sensible presentation of practical reasons for not using it. If the young person's use of the drug was basically experimental, and he and his parents can talk it out, there may be little to worry about.

Finding a rational and effective approach to the problem of the increasing use of marijuana and other drugs means reducing the emotionalism and the myths surrounding the subject. Educational programs for parents, teachers and other adults providing the latest up-to-date unbiased information can be beneficial. Adults are often more in need of accurate drug knowledge than young people. Pitzer believes that a large-scale research program should be launched as soon as possible to give us facts about drug effects.

"If our goal is to reduce drug abuse and to treat when treatment is indicated, example first, and education, second, will go a long way," the University family life specialist says. "Education which involves developing a basic respect for the human organism and wonderfully complex nervous system and education which presents fairly and accurately the risks involved in all drug use will accomplish much," Pitzer declares.

To all counties

ATT: Extension Home Economists

Immediate release

IS SEWING MACHINE A GOOD INVESTMENT?

If your family does not own a sewing machine, would it be a good investment in these days of high clothing prices?

Young families could save about 65 percent on the clothing budget, according to a report from Consumer's Union, if they used a sewing machine to good advantage.

That would mean making new clothing, alteration and remodeling and using the machine for repairs.

A sewing machine would be worth buying, says Thelma Baierl, extension clothing specialist at the University of Minnesota, under these conditions:

- . If the homemaker has time to sew.
- . If she has ability or interest in sewing or is willing to learn.
- . If she has a place to sew.

But if the only reason for sewing is to save money, the homemaker may find other ways of reducing costs such as having a garden, preparing more food at home, caring for a child of a working mother or working outside the home.

To all counties

Immediate release

SOYBEAN PRICE DEPENDS ON EXPORTS, EXPANDED CRUSHING CAPACITY

If prices of soybean products continue at the same level as last year, farmers can expect average soybean prices to be as much as 40 cents per bushel higher than in 1969-70.

The present nature of the soybean market indicates that prices may go over \$3 per bushel (Minneapolis basis), says Willis Anthony, marketing specialist at the University of Minnesota. "However, I'll be surprised if the market can support prices much above \$3 for any length of time. In past years, prices above the \$3 level have sharply curtailed use and farmers should watch market developments closely," Anthony advises.

"The two critical market factors to watch are the export rate and the degree to which expanded crushing capacity will lead to trimmed crushing margins. Exports may not rise at the past year's rate, but the trend should continue upward unless prices rise sharply."

Crushing margins during the past year have been the highest in many years,

Anthony says, while processors have been operating at full capacity all year

without building up stocks of oil and meal.

However, additions in plant capacity more actively point to more normal margins in the coming year as processors more actively bid for beans to operate at plant capacity.

Soybean supplies will be 6.4 percent less than a year ago, based on the November 1 USDA forecast. Although production will be up, reduced carry over leaves supply roughly the size of 1969-70 utilization and should not be burdensome, Anthony says.

add 1--soybean price

However, the demand picture is less certain, although a 3 percent increase in domestic soybean use appears likely at last year's product price levels. Domestic livestock numbers are expected to be up, but potentially lower livestock feed price ratios and lighter fed weights will lessen the impact of increased numbers. Larger supplies of competing fats and oils also will be available.

Supplies are clearly short in relation to demand when you combine domestic use and export tendencies, Anthony adds. This may lead to a product price rise or a sharp decline in exports to put them more in line with years before 1969-70.

To all counties

Immediate release

ORDER FRUIT PLANTS EARLY

If you plan to replant an old small fruit planting or establish a new one next year, don't wait until the last minute to select and order your plants. December isn't too early to order plants for next spring, says County Extension Agent

You can't overcome the disadvantages of poor stock, so get true-to-name and disease-free plants from a reputable source. Don't select plants entirely on the basis of price, or risk getting poor quality plants from a neighbor's field.

In the long run, it's usually cheaper and wiser to buy the best available plants. Virus-free strawberry or raspberry plants are more expensive, but their superior performance after planting has been well established.

Place your orders early to be assured of obtaining the desired varieties,

suggests. Specify the desired date of delivery and method of shipment when placing your order. A little planning this fall and winter will avoid disappointment or settling for second choices next spring.

Careful selection of adapted varieties is also important in establishing a successful planting. Consult the county extension office for variety recommendations for your area. After you have decided on the varieties you want, check their availability from your local nurseryman or write to several nurseries for their latest catalogs.

To all counties

Immediate release

DAIRYMEN: WATCH FEED PRICES CLOSELY

Dairymen who are buying feed should watch prices more closely than usual this coming winter and spring.

The southern leaf blight problem and the uncertainty of what will happen next year may raise corn prices beyond comparable prices of other grains, says Ralph Wayne, extension dairy specialist at the University of Minnesota.

Barley, oats and corn can be interchanged considerably in a dairy ration. Oats and barley have more protein than corn, but all three are much lower than several other feeds such as alfalfa hay and high protein concentrates.

On an energy feed value basis these feeds have the following average value as compared to 100 pounds of shelled corn:

Corn	100
Barley	92
Corn & Cob	Mea190
Oats	83

Or, putting it another way, 100 pounds of shelled corn has the same feed value for dairy cows as 108 pounds of barley, 111 pounds of corn and cob meal or 123 pounds of oats. Also, one bushel of shelled corn (56 pounds) equals 1½ bushel of barley and 2 1/10 bushels of oats.

To all counties

Immediate release

CORRECTION

There has been a change in the schedule of retail dealers meetings for seed, fertilizer and agricultural chemical dealers. The Moorhead meeting will be held January 21 at the Holiday Inn, and the Park Rapids meeting will be held January 19 at the Citizens National Bank. Originally, the schedule had these dates and locations reversed.

Consult our November 23 news release for further details, and for a complete schedule of the meetings throughout the state.

* * * *

To all counties

Immediate release

IN BRIEF

Get Rid of Free-Loading Cows. With feed costs higher than they have been for several years, it's even more important that high priced feed isn't fed to low producing dairy cows.

The feed saved by weeding out a few loafer cows will more than pay for the Dairy Herd Improvement (DHI) service, says Ralph Wayne, extension dairy specialist at the University of Minnesota. In addition, many other services are provided by the program. See your county extension agent or DHI board member or supervisor or board member about joining.

* * * *

Food Prices Rise Less. Food prices rose less than three-fourths as much as all other consumer goods in the past 10 years. The retail cost of a market basket of farm foods was 25 percent above the 1957-59 average during the second quarter of 1970. The overall Consumer Price Index was up over 34 percent.

* * * *

Records are Road Map for Farm Business. A farm plan is like a road map--it helps choose the shortest and best way to reach your destination. Your farm record furnishes the most accurate facts for your farm plan. The farmer should not attempt to run the business without good farm records anymore than a motorist should undertake a long trip over unknown roads without a road map.

* * * *

AGRICULTURAL EXTENSION SERVICE

UNIVERSITY OF MINNESOTA

Institute of Agriculture St. Paul, Minnesota 55101

November 30, 1970

TO: County Extension Agents

RE: Soybean Outlook Release

Enclosed is a story on the soybean outlook which has been sent directly to daily newspapers plus radio and TV stations. Use it in any way you see fit.

Sincerely,

John M. Sperbeck

Extension Information Specialist

JS:vh

4-H NEWS
To all counties

Immediate release

SEW THE DELIGHTFUL DOUBLE KNITS

Double knits have stolen the heart of everyone who wants comfortable, packable, easy to care for and yet expensive looking clothing.

Try sewing a double knit fabric. It may be one of your simplest and most satisfying sewing adventures.

Double knits can be sporty, casual or dressy and take hard wear without showing it. If you shy away from sewing double knits because price per yard seems high, remember that the material is 60 inches wide, so less yardage is needed. The cost of double knits is also reduced when you know that polyester knits are machine washable, can be put into your dryer and need little or no pressing. Anyone who sews can have success with even the first knit garment.

When selecting polyester knit fabric, be sure it is on grain because the grain cannot be straightened, says Thelma Baierl, extension clothing specialist at the University of Minnesota. Wool knits can be pulled to straighten the grain. Choose your normal pattern size when selecting your favorite style. Don't think that because a knit stretches you can buy a smaller pattern size. Also remember that sharp creases are hard to press into knits, so soft pleats are better than tailored details.

Before you cut your material, be sure to preshrink both wool and polyester knits and allow the fabric to relax for 12 to 24 hours on a table. Fold the material with the right side out and always use sharp shears, scissors and pins since knits are easily snagged.

add 1--double knits

The thread may be polyester, polyester core type, mercerized cotton or silk.

Buttonhole twist thread may be used for top-stitching. Don't forget to buy firm interfacing because you will need it at all faced edges, button and buttonhole areas. Always preshrink the interfacing.

Use light thread tension on your sewing machine and set the stitch length at 12-15 per inch. Slightly loose pressure on the presser foot should be best for your knit, but experiment on a sample first.

When you are pressing double knits, remember to press along the seam line before presing it open. This settles the thread in fabrics with depth. Use your iron with the temperature set for the fiber content of the knit. It is very important to press with the lengthwise rib, since pressing in other directions will distot the shape.

NO ADVANTAGE FOR FEEDING PLASTIC ROUGHAGE

University of Minnesota research showed no important differences in rate of gain, feed efficiency or feed cost per 100 pound gain when cattle were fed an all-concentrate ration or an all-concentrate ration with a plastic roughage substitute.

This research was presented at Minnesota Beef Cattle Feeder Days held throughout the state in early December.

Cattle fed an all-concentrate diet gained 3.73 pounds per day, required 536 pounds of feed per 100-pound gain and had a feed cost per 100 pound gain of \$11.43, University animal scientists C. E. Dexheimer, J. C. Meiske and R. D. Goodrich reported.

Cattle fed the ration with polyethylene plastic roughage substitute gained 3.60 pounds per day, required 541 pounds of feed per 100-pound gain and had a feed cost per 100-pound gain of \$11.53.

The researchers reported that the two treatments did not differ significantly in any performance or carcass traits.

Particles of polyethylene plastic are one of several roughage substitutes being sold to cattle feeders. Research information available at this time shows cattle fed an all-concentrate ration with or without a roughage substitute often perform better than cattle fed a high forage ration.

The advantage for cattle fed an all-concentrate ration with roughage substitute over those fed a high forage ration may be due to the fact that less forage is fed, the scientists say. This trial was designed to determine if the roughage substitute was beneficial when an all-concentrate ration was fed.

U SCIENTISTS DETERMINE VALUE OF SWEET CORN SILAGE

University of Minnesota animal scientists have determined the value of whole plant sweet corn silage, cannery waste by-product silage and dried cannery waste by-product as feeds for growing cattle and lambs.

When regular corn silage was valued at \$1.33 per 100 pounds dry matter, whole plant sweet corn silage was determined to be worth \$1.33 and sweet corn cannery waste silage \$1.03 per 100 pounds dry matter. Dried sweet corn cannery waste was worth \$0.96 per 100 pounds dry matter, according to researchers M. Y. Yamoor, J. C. Meiske, R. D. Goodrich, M. M. Underdahl, and R. A. Hemmingsen.

The results were presented at Minnesota Beef Cattle Feeder Days held throughout the state in early December.

Sixty-four Angus crossbred-Hereford steer calves which had an average initial weight of approximately 550 pounds were randomly allotted to eight pens for the study. Two pens were assigned to each of four forages. The forages were regular whole plant corn silage, whole plant sweet corn silage, sweet corn cannery waste silage and dried cannery waste. Cattle in all lots were fed three pounds of shelled corn and one pound of supplement per head daily in addition to as much of the assigned forage as they would consume.

Cattle fed whole plant sweet corn silage gained 2.03 pounds per day as compared to 1.75, 1.45, and 1.30 pounds per day for regular corn silage, sweet corn cannery waste silage or dried cannery waste, respectively.

Amounts of dry matter required for 100 pounds gain were 761, 655, 787, and 1152 pounds for cattle fed regular corn silage, whole plant sweet corn silage, sweet corn cannery waste silage and dried cannery waste, respectively.

add 1--sweet corn silage

In the sheep trial, 24 wether lambs were placed in stalls and six each were assigned to the four forage treatments. The lambs were fed only forage and a supplement.

TDN (total digestible nutrients) intakes relative to those consumed by lambs fed regular corn silage (100) were 87 for whole plant sweet corn silage, 72 for sweet corn cannery waste silage and 68 for dried sweet corn cannery waste.

The sweet corn cannery waste silage had a low feeding value due to low dry matter intakes caused by high water content, the scientists say. The dried by-product had a low feeding value because of low digestibility.

Immediate Release

AGRICULTURAL COMMUNICATION CHALLENGE TOLD BY UM EXPERT

Communication with tomorrow's farmers will have to be "specialized, precise, timely and in tune with the times," a University of Minnesota professor told a meeting in Kansas City, Mo., on Wednesday (Dec. 2).

LaVern A. Freeh, assistant director of the Minnesota Agricultural

Extension Service and head of the Office of Special Programs at the University's

Institute of Agriculture, spoke at the annual meeting of Farmland Industries.

"Communicating effectively includes receiving as well as sending, listening as well as talking and it involves sensing and involving. Effective communications begin with our ability to understand ourselves our responsibilities, our relationships to others, the agency we work for and the products we handle," he said.

Freeh suggested that Farmland Industries learn all it can about "the newest, specialized and sophisticated means for bringing up-to-the-minute messages to your clientele," including tele-teaching, videotape recordings, tape cassettes and "xerography."

"Study and continually work at understanding the people you deal with and the environment in which they live," he said.

add 1--agricultural communication

"The commercial farmer you will be trying to reach...understands the importance of the human dimension and recognizes that he, like all of us, will increasingly be judged not only by his management ability and material wealth but also by what he personally contributes to the furtherance of human progress," Freeh said.

Tomorrow's farmer will have survived 'because he has been able to obtain and effectively use the necessary resources' and realizes he must continue to obtain resources including as much information as possible in order to survive, he added.

Tomorrow's farmer recognizes "that the job ahead in farming, in rural America and in our cities is difficult, complex and challenging....Group actions and public decisions represent the only way for solving some of the complex problems he will increasingly encounter. The farmer of tomorrow is a scientist, a businessman, an environmentalist and a humanist in addition to being an agriculturalist.

"To managers of cooperatives, boards of directors and others who wish to communicate with him, he represents a challenge and a paradox," Freeh said. Tomorrow's farmer will demand the latest information and products, but will be so preoccupied and specialized that "it will become increasingly difficult even to get his attention," he added.

"Products will have to be better than competitors' and services will have to be delivered rapidly, efficiently and in a friendly manner, which is the challenge facing an effective communications program," he concluded.

Immediate Release

MINNESOTA 4-H CLUBS RECEIVE CERTIFICATES FOR SAFETY PROGRAMS

Carver County and 10 Minnesota 4-H clubs will receive certificates and state recognition for their programs in the 4-H safety project.

The Carver County safety program was cited as the outstanding county safety program in Minnesota. The county extension office in Carver County will receive a \$25 award.

The 10 outstanding clubs in Minnesota are: 4-H Cardinals, Aitkin County: Mission Creek, Carlton County; Sugar City, Carver County; Lake "15", Clay County; Island Lake Zeps, Lyon County; O'Neil Eagles, Mille Lacs County: Cairo Sharpshooters, Renville County; Arlington Conquerors, Sibley County; Burtrum Boosters, Todd County; and the Mount Pleasants, Wabasha County.

Community service activities were emphasized by each 4-H club, according to Earl Bergerud, assistant state leader, 4-H and youth development at the University of Minnesota. Some of their safety activities included pedestrian visibility programs, snowmobile safety programs, reflectorizing bicycles and posting signs at dangerous curves and blind spots. Some clubs promoted poison prevention week and fire prevention week through displays, escape fire drills for homes, handbills and spot radio announcements, and making safety booths and floats for county fairs.

add 1--minnesota 4-h clubs

Individual 4-H members have inspected their own homes for safety hazards and reported those corrected, given safety demonstrations and exhibited safety posters, and participated in school patrols and the Red Cross swimming classes.

Local policemen and highway patrolmen have talked with 4-H'ers about the safety programs needed in their communities, and ways of carrying out the programs.

General Motors, Detroit, Michigan, donate the 10 certificates and \$25 county award to outstanding safety programs in every state.

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Immediate Release

TOPIC CHOSEN FOR STATE 4-H SPEAKING CONTEST

"Who Is My Brother? Am I His Keeper?" is the topic for the 29th annual Statewide 4-H Speaking Contest.

Each year about 14,000 4-H'ers participate in the 4-H radio speaking contests throughout the state.

The topic is particularly relevant at a time when youth and adults are questioning governmental welfare systems, material and military aid to other nations, population and pollution, racial and religious differences and relationships, and a whole range of human relations issues, according to Leonard Harkness, state leader, 4-H and youth development at the University of Minnesota.

Participating 4-H'ers prepare an original five-to seven-minute talk that can be delivered extemporaneously or from a script. All county winners will be invited to the Twin Cities for a three-day conference and contest to be held March 7-9.

The 4-H Speaking Contest and Program has been sponsored for 29 years by the Jewish Community Relations Council of Minnesota and the University of Minnesota.

Immediate release

Department of Information and Agricultural Journalism Institute of Agriculture University of Minnesota St. Paul, Minnesota 55101 December 1, 1970

> YEAR-AROUND FEEDERS MAY FIND CONFINEMENT HOUSING PROFITABLE

Preliminary results from a University of Minnesota feedlot housing study suggest that cattle feeders can afford to build more expensive housing units if they keep them filled to capacity.

University of Minnesota researchers presented the first-year results of their study at the 1970 Beef Cattle Feeders Day events held throughout the state in early December. The study is being conducted by R. E. Smith, H. E. Hanke, L. K. Lindor from the University's West Central Experiment Station at Morris and animal scientists R. D. Goodrich and J. C. Meiske.

The researchers stressed that the study will be repeated several years and this year's results must be considered preliminary.

Five housing systems were studied.

- * Conventional open shed with an outside concrete lot.
- * Manure pack confinement with manure scrape alley.
- * Cold slat confinement.
- * Warm slat confinement.
- * And, open lot with dirt mound and windbreak fence.

Animal areas per head were 20 vs. 30 square feet of bedded area per head in the conventional and manure scrape building and 17 vs. 25 square feet per head in the cold and warm slat buildings. Animal density did not influence feedlot performance but in all cases profits favored using units at higher animal densities.

The trial was conducted over a 256-day period and 324 Hereford steer calves were used in the experiment. All cattle received a ration of high moisture shelled corn, corn silage and supplement.

The researchers also reported these facts.

add 1--year-around feeders

- * Cattle in the warm slat building gained faster (2.33 pounds per day) than those in any other system (2.10 for conventional, 2.21 for the manure scrape, 2.18 for cold slat and 2.04 for the open lot).
- * Differences in feed cost per 100 pounds gain were small and did not favor any of the systems.
 - * Cattle housed in the warm slat unit were fatter than those in the other systems.
- * More animals were removed from the open lot because of ill health than from any other housing system. If this trend holds true in future years, it will be a factor to consider when evaluating the open lot, the researchers said.

Profits per year were calculated to a 300 head basis for high density units and to a 200 head basis for low density units. When the units were operated at 100 percent capacity, profits per year were as follows:

High density--

- * Manure scrape, \$8591
- * Cold slat, \$8215
- * Warm slat, \$7451
- * Open lot, \$7330
- * Conventional, \$5692

Low density--

- * Cold slat, \$5289
- * Conventional, \$5200
- * Open lot, \$4682
- * Manure scrape, \$3731
- * Warm slat, \$3221

add 2--year-around feeders

When only one lot was fed per year, yearly profits were as follows:

High density--

- * Open lot, \$5313
- * Manure scrape, \$5154
- * Cold slat, \$5040
- * Conventional, \$3768
- * Warm slat, \$3333

Low density--

- * Open lot, \$3276
- * Conventional, \$3174
- * Cold slat, \$2719
- * Manure scrape, \$2018
- * Warm slat, \$551

> EVALUATE ANTIBIOTICS ON REDUCING SICKNESS, DEATH LOSSES

Antibiotic treatments for new feeder cattle should be evaluated on the basis of how effectively they reduce sickness and death losses and not just on rates of gain during the early period in the feedlot.

Antibiotic treatments which reduce or eliminate sickness and death losses and save veterinary costs are economically important, even though gains over the entire feeding period are not influenced, say University of Minnesota animal scientists.

Animal science researchers J. C. Meiske, C. E. Dexheimer and R. D. Goodrich reported on the value of Aureomycin-sulfamethazine or Bacitracin for new feedlot cattle at Minnesota Beef Feeders' Day events held throughout the state in early December.

The scientists used 39 steer calves to study the effect of feeding a combination of Aureomycin and sulfamethazine during the initial 28 days as well as the entire feeding period of 216 days. There was no sickness or death loss in either the control group of calves or among the calves fed the Aureomycin-sulfamethazine treatments.

Calves fed the Aureomycin-sulfamethazine had faster gains during the initial 28 days than the control group (2.86 to 2.54 pounds average daily gain), but by the end of the 216-day feeding period there was no significant difference (2.70 to 2.76 pounds).

In another experiment, Aureomycin-sulfamethazine was compared to Bacitracin-MD. There was no sickness or death loss among animals receiving either of the antibiotics. There were no significant differences in feedlot performance between cattle receiving Aureomycin-sulfamethazine or Bacitracin-MD.

AMOUNTS OF CORN SILAGE IN GROWING-FINISHING RATIONS STUDIED

The results of recent University of Minnesota research on levels of corn silage and corn grain in rations for finishing Holstein steers were announced at the Minnesota Beef Cattle Feeders' Days held throughout the state in early December.

The report was prepared by animal scientists K. P. Miller and E. C. Frederick, both of the Southern Experiment Station, Waseca, and R. D. Goodrich and J. C. Meiske, both of the St. Paul Campus.

Combinations of rations studied and the results were as follows. All rations given are on the "as fed basis."

- --Three parts corn silage to one part concentrate from 400 pounds to market weight. Results: Average daily gain, 2.42 pounds; feed cost per 100-pound gain, \$12.87; profit per head, \$24.83; profit per head of feedlot capacity, \$35.76.
- --Three parts corn silage to one part concentrate from 400 to 750 pounds followed by one part corn silage to one part concentrate to market weight. Results; Average daily gain, 2.64 pounds; feed cost per 100-pound gain, \$12.69; profit per head, \$29.10; profit per head of feedlot capacity, \$45.69.
- --Three parts corn silage to one part concentrate from 400 to 750 pounds followed by one part corn silage to two parts concentrate to market weight. Results: Average daily gain, 2.73; feed cost per 100-pound gain, \$12.80; profit per head, \$28.81; profit per head of feedlot capacity, \$46.67.

add 1--rations studied

--One part corn silage to one part concentrate from 400 pounds to market weight.

Results: Average daily gain, 2.65; feed cost per 100-pound gain, \$13.45; profit per head, \$24.81; profit per head of feedlot capacity, \$38.95.

This phase of a long-term study to determine forage and concentrate levels was conducted using 117 Holstein steers.

As expected, amounts of dry matter per 100-pound gain were greatest for steers fed a three-to-one silage-concentrate ration for the entire feeding period, the animal scientists reported. Carcass characteristics did not differ significantly among treatments; however, steers fed the ration with the greatest proportion of corn silage appeared to have less marbling and graded slightly lower than steers fed greater amounts of grain from 750 pounds to market weight.

Immediate release

Department of Information and Agricultural Journalism Institute of Agriculture University of Minnesota St. Paul, Minnesota 55101 December 1, 1970

HORMONE GROWTH
PROMOTANTS FOR
HEIFERS STUDIED

A University of Minnesota study found that the hormone growth promotant stilbestrol (DES) was less effective in promoting weight gains in heifer calves than either MGA or Rapigain.

Results of the research by animal scientists H. F. Windels, R. D. Goodrich and J. C. Meiske were presented at Minnesota Beef Cattle Feeder Days held throughout the state early in December.

Two tricls involving 156 heifers were conducted to compare the performance and carcass characteristics of heifers treated with different hormone growth promontants. Heifers were fed either DES or melengestrol acetate (MGA) or implanted with Rapigain, or fed DES and implanted with Rapigain.

In each trial, there was a growing phase of about 120 days during which the diet consisted of five pounds of barley per head daily plus alfalfa haylage. The growing phase was followed by a finishing phase during which haylage was limited to five pounds per head daily and barley was full-fed.

The data showed that heifers fed DES gained 1.85 pounds per day, while heifers fed MGA, or implanted with Rapigain, or fed DES and implanted with Rapigain gained about 2 pounds per day.

Carcass characteristics were not significantly different among treatment groups.

Heifers in the DES treatment group required more feed dry matter per 100 pounds of gain than heifers in the other three treatments in the growing phase, but the differences were not significant when results from the growing and finishing phases were combined.

Profit, on either a per head or a per head of feedlot capacity basis, was greatest for the heifers which had been fed NGA. Heifers which had been administered DES plus Rapigain showed the least profit. Heifers in the DES fed or Rapigain implanted groups were intermediate in profitability.

WINTER ENERGY NEEDS FOR BEEF COWS STUDIED

Wintering beef cows in northern Minnesota should receive about 8 pounds of TDN (total digestible nutrients) per day, according to University of Minnesota research.

That's what animal scientists J. W. Rust, J. C. Meiske and R. D. Goodrich report from two-year results of a study being conducted at the University's North Central Experiment Station at Grand Rapids.

The energy requirements for wintering beef cows in cold climates such as northern Minnesota have not been well established.

The researchers initiated the study to determine the most economical energy levels at which beef cows may be fed without affecting their production or reproduction.

Three different energy levels were fed to pregnant Hereford cows.

Birth weights of the calves were not affected by the level of energy fed.

Cows in the low energy group gained more body weight during the nursing period,

but weaned lighter calves than the medium and high groups.

Until more information is available from the continuing experiment, the researchers recommend that energy levels for wintering beef cows in cold climates consist of about 8 pounds TDN per day.

Immediate release

UNIVERSITY ST. PAUL CAMPUS UNITS REORGANIZED

Reorganization involving two major units of the University of Minnesota was approved today (December 4) by the University of Minnesota Regents.

The Regents elevated the former Schools of Forestry and Home Economics to college status. Both colleges remain units of the University's Institute of Agriculture.

Earlier in the year the Regents had approved the creation of three separate faculties and administration in the old College of Agriculture, Forestry, and Home Economics. This earlier move resulted in a College of Agriculture and Schools of Home Economics and Forestry. The new action elevates the status of the two schools to college in recognition of their important educational missions.

The three colleges will be administered by deans. All now have acting deans with H. J. Sloan serving the College of Agriculture; Keith McFarland, the College of Home Economics; and Frank Kaufert, the College of Forestry. All deans will be responsible to the administrative head of the Institute of Agriculture, Dean Sherwood O. Berg.

The changes in internal structuring of the Institute will enable faculty to be even more effective in meeting its responsibilities, according to Dean Berg. With the changes the Institute will be able to serve more adequately a changing University, an increasingly complex system of higher education in Minnesota, and the expanding needs of people of the state.

To all counties

Immediate release

CONSIDER ECONOMICS BEFORE USING TIBA

Your decision whether to use TIBA on soybeans should be based on economics, say University of Minnesota agronomists Dale Hicks and Vern Cardwell.

Yield data from University of Minnesota experiments show no economic advantage from using TIBA (sold under the trade name REGIM-8). However, soybean producers who are looking for an extra bushel or so may want to try TIBA on a small acreage, the agronomists say.

For detailed data on University of Minnesota experiments at several state locations, ask your county extension agent for a copy of Agronomy Fact Sheet No. 21, "Effect of TIBA on Height, Lodging, and Yield of Soybeans." Copies are also available from the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

If you're interested in using TIBA, carefully consider these production practices

- * Check the label for varieties that are not recommended for use with TIBA.

 Chippewa is one such variety.
- * Consider application on early-planted soybeans since they usually grow taller and lodge more.
- * Restrict TIBA to soybeans grown in rows 30 inches wide or less. TIBA causes less vegetative growth and may reduce yields if row spacing is greater than 30 inches.
- * The recommended time for application is the 1/10 bloom stage, when 1 out of 10 plants shows at least one flower. Close observation is needed to identify this stage since the soybean plants are in this stage only about 1 to 2 days. Earlier applications severely stunt the plants, depress yields and delay maturity. Later applications do not cause a measurable effect on the plants.
- * Combining may be easier because of less plant lodging, the agronomists add.

 This may increase yield by reducing harvest losses. On the other hand, the tendency for pods to be produced lower on the plant may require slower combine ground speed and lower cutter bar height.

To all counties

Immediate release

U. S. DAIRY FARMS VARY BY REGION

Dairy farmers adapt differently to new production practices by geographic region within the United States and will probably continue to do so, according to a United States Department of Agriculture study.

Characteristics of dairy farms also varied widely by geographical region, according to Boyd Buxton, an agricultural economist stationed at the University of Minnesota who conducted the study.

For example, average size of the dairy enterprise ranged from just over 100,000 pounds of milk marketed yearly in the Northern Plains to over 800,000 pounds in the Pacific region, which included the states of California, Oregon and Washington.

The study found that dairy farmers with milking parlors sold about half again as much milk as their neighbors with stanchion barns. Farmers with milking parlors also specialized more in dairy production. The degree of specialization in dairying varied from a high average of 85 percent of total farm sales in the Northeast to only 16 percent in the Northern Plains.

Farmers with milking parlors used more labor per farm, but had greater milk production per hour of labor. They also had a higher peak seasonal labor demand due to the greater amount of forage needed for more cattle.

Only 4 percent of the dairy farms in the dairy belt--Northeast and Lake states-had milking parlors, compared to 37 percent in the Delta States and Pacific region.

Average total assets per farm were \$52,000 in the Appalachian region, compared to \$160,000 in the Pacific region.

Copies of the report, entitled "Farms Reporting Dairy Sales in 1964," may be obtained by writing to the Department of Agricultural and Applied Economics, University of Minnesota, St. Paul, Minnesota 55101.

To all counties

ATT: Extension Home Economists

Immediate release

ENTERTAIN SAFELY WITH FONDUES

Fondue cookery will be one of the popular ways of entertaining friends during
the holidays, but use good judgment in preparing your fondue meal so it's safe as well
as fun, cautions County Extension Home Economist Overheated
oil can cause sudden flame flare-ups, she warns.

She passes on some safety tips from the National Safety Council:

- . Beware of instructions telling you that oil is ready when it bubbles. Oil may smoke or blaze before it bubbles of its own accord.
- . Make sure the fondue pot sits on a secure, rimmed holder to reduce the chance of its being overturned at the table.
- . Use only metal pots with sloping sides for making beef fondue. Never use a ceramic fondue pot for that purpose. Ceramic pots are not designed to withstand the high temperatures necessary for making beef fondue.
- . Heat the oil in an electric fondue pot about 15 minutes or until it reaches approximately 400° F. Be very careful that no one trips over the electric cord.
- . If you use a non-electric fondue pot, heat the oil on the range in an uncovered pan, watching it closely while it is heating. Never heat oil in a covered pan, since it can easily reach ignition point and you may have a flash fire when the cover is removed. Be very careful in transferring the heated oil to the fondue pot.
- . Heat cooking oil until a one-inch cube of fresh bread browns in 40 to 60 seconds. If the oil begins to smoke, it is too hot and should be removed immediately from the source of heat.
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To all counties

Immediate release

SHEEPMEN: FEED CREEP RATION FOR ENERGY

Sheepmen should regard the main contribution of a creep ration for suckling lambs as an energy source--the ewe's milk provides adequate protein.

University of Minnesota animal scientists R. M. Jordan and H. E. Hanke report that protein levels or the source of supplemental protein (urea or soybean meal) do not significantly affect the growth rate of suckling lambs.

The scientists conducted four experiments involving 281 suckling lambs to determine the level and source of protein (soybean meal or urea) on weight gains and daily feed intake.

In another experiment the scientists determined the protein requirements of lambs weaned at 4 weeks of age. They found the optimum daily intake of crude protein to be about 100 grams per head.

During the period from 4 to 10 weeks of age, palatable rations containing 13.5 to 14 percent crude protein will result in feed intakes of 100 grams of protein.

To all counties

Immediate release

IN BRIEF

Second Brood Corn Borer Damage. The second brood corn borer population in Minnesota last year was the highest it's been in 10 years, according to University of Minnesota entomologists. For every borer present in the first brood, there were 13 in the second brood. Resistance to first brood borers has been bred into most corn hybrids grown today, the entomologists say. Researchers with the United States Department of Agriculture are working on developing hybrids which will be resistant to second brood borers. However, it will take some time before this resistance can be bred into commercial varieties.

* * * *

Breed Dairy Cows Only to Dairy Bulls. Every cow and heifer in the herd should be bred to the best transmitting dairy sire available if you're to make the most rapid improvement in inheritance for production. Dairymen who breed their heifers and many of their cows to beef bulls may find themselves short of heifers for herd replacements. Most herds must replace about one-fourth of all cows each year, and it takes most of the heifers born in a herd to fill that demand.

* * * *

U. S. Benefit From Farm Exports. Foreign trade in agricultural products is an important source of national income. One out of 5 U. S. harvested acres is exported. Exports of U. S. farm products totaled \$6.6 billion in fiscal 1970. This included about \$5.6 billion in commercial sales and \$1 billion in food aid. The United States is the world's largest exporter of farm products, accounting for around one-fifth of world agricultural trade.

To all counties

ATT: Extension Home Economists

Third in series on drugs

PARENTS SHOULD LEARN SIGNS OF DRUG USE

How can parents know whether their children are taking drugs?

Each drug has its specific symptoms, but these are easy to misread. The best way to spot trouble, says Ronald Pitzer, extension family life education specialist at the University of Minnesota, is to know your child. Look for changes in the youngster's appearance, habits and behavior. Here are some signs, though they are not always indications that a youth is taking drugs.

- . Hours. Does he keep peculiar hours? Is there time he can't account for?
- . Schoolwork. Are there changes in school attendance, grades, character of homework turned in, discipline?
 - . Unusual flare-ups of temper.
- Appearance. Does he wear sun glasses at inappropriate times, perhaps to hide dilated or constricted pupils? Does he wear long-sleeved shirts constantly-possibly to hide needle marks? Has he lost weight? Has his complexion changed? Are his eyes red or bagged? Has he become careless about his dress when he never was before?
 - . Furtiveness regarding his activities, his whereabouts and his possessions.
 - . Association with known drug abusers.
- . A continual need for money. Does he borrow money from friends, steal small items from home or school, sell personal items? If he is shy a sweater or two, or if, say, the toaster is missing, it may be suspicious. Drugs are expensive, putting the user in a constant money bind.

These are all signs of trouble, the University family life specialist says.

Even if that trouble isn't drugs, they should not be ignored. Chances are that if a youngster is developing a drug habit, he has other problems as well.

To all counties

ATT: Extension Home Economists

Immediate release

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To all counties
4-H NEWS

Immediate release

4-H FILLERS

4-H pays off in many ways. One of those ways is in providing scholarships for college. Five 4-H members and a former 4-H'er from Minnesota were named national winners and recipients of \$4,100 in scholarships at the 49th National 4-H Congress in Chicago.

Three Minnesota 4-H'ers received \$600 scholarships for exceptional records in particular programs: Cynthia Christenson, 18, Northfield, in clothing; Cherryl Kay Jostad, 17, Brownsville, food-nutrition; David Dose, 19, Glencoe, swine program.

Paul Houglum, 18, Perley, received a \$1,000 scholarship for his work in the safety program. Gail Uhlenkamp, 18, Redwood Falls, was regional winner of an \$800 scholarship given by the Edwin T. Meredith Foundation. Another regional scholarship winner was Craig Zinter, 21, Canby, a University of Minnesota senior, who won a \$500 scholarship in agricultural economics in the 4-H awards program for the second year in a row.

* * * *

A young women enrolled in the University of Minnesota College of Veterinary Medicine, Patricia Bussian of Deforest, Wisconsin, was one of two winners of Lassie-4-H Veterinary Medicine scholarships of \$800. The Lassie awards are given to former 4-H'ers currently enrolled in a college of veterinary medicine to encourage youth to specialize in the field of veterinary medicine.

* * * *

Minnesota can also claim a first in this year's International Live Stock Show. For the second straight year the Minnesota state championship livestock judging team from Jackson County was declared national winner in the 4-H Livestock Judging Contest at the International Live Stock Exposition in Chicago. Members of the winning team were Jim Rowe, 18, and Tom Nielson, 17, of Jackson; Kenny Puck, 17, Lakefield and Dan Yonker, 18, Estherville, Iowa. The boys scored 1,662 out of 1,800 possible points Coaches for the team were Dr. Charles Christians, extension animal scientist at the University of Minnesota and Ron Harder, agricultural representative of the First National Bank, Jackson.

TIPS FOR HUSBANDS BUYING A DISHWASHER FOR CHRISTMAS GIFT

Husbands who plan to surprise their wives with a gift of a dishwasher for Christmas can select from either built-ins or portables.

Portables run higher in price than built-ins, but the lower prices of built-ins may be offset by initial installation costs--connections to water and drain pipes and possibly some cabinet and electrical work, according to Mrs. Wanda Olson, extension specialist in household equipment at the University of Minnesota. Front-loading portables are more expensive than comparable top-loading models; however, portables with front controls can be converted to built-ins when desired. There may be as much as \$100 difference between the economy model and the de luxe model of any manufacturer--so you may want to decide in advance how much you are prepared to spend.

Be sure you have the right amount of space. A standard dishwasher requires 24 inches square. Most models are about 34 inches high and a few models fit under shallow sinks or cooktops. A separate circuit is desirable to operate a dishwasher; otherwise no heating appliance should be used while the dishwasher is in operation.

When you shop for a dishwasher, one of the things to consider is number of cycles. Economy models usually have two cycles: regular and either rinse and hold or heavy duty. A regular cycle usually consists of a pre-wash, two wash, two rinse and a drying period. A rinse and hold cycle is usually one or two rinses only. A heavy duty cycle is similar to the regular wash cycle but has either a longer wash time or three wash periods.

add 1--buying a dishwasher

Some models have other cycles--such as a china and crystal cycle or a special sanitary cycle--or other special features. When you consider a model with special cycles or other features, always consider the cost and the use you will make of them, Mrs. Olson advises. One manufacturer, for example, offers a de luxe feature of a dishwasher top that is a combination food warmer and a cutting board. The extra cost may not be worth the use you would make of this feature.

In case you question the cost of operating a dishwasher, it is about 4 cents a load, including electricity, detergent and hot water heating.

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jbn-171-70

LATEST TECHNOLOGY USED AT UM TO FIND 'PERFECT PICKLE'

The quest for the "perfect pickle" continues at the University of Minnesota with the use of an "extremely sophisticated texture measuring instrument," according to William M. Breene, assistant professor of food science and industries.

Pickle Packers International, a trade organization, defines the ideally textured pickle as one which produces a crunch audible at 20 paces when bitten into, Breene said. But the Pickle Packers method of determining the "perfect pickle" leaves much to be desired as far as University food scientists are concerned.

Researchers are using an Instron testing machine to provide a "texture profile analysis" of pickles and cucumbers. "By this means we can place numerical values on such textural aspects as crispness, hardness, cohesiveness, elasticity, gumminess, chewiness and adhesiveness," he added.

The Instron machine gives food scientists a reliable basis for selecting cucumber varieties and processing procedures which will result in a better textured product, Breene said.

Breene and David W. Davis, professor of horticultural science, have evaluated 24 different cucumber varieties and breeding lines for texture. They hope to select a number of better textured varieties from this group and concentrate on texture improvement of the pickled product through processing innovations,

Breene reported.

-more-

add 1--latest technology

University researchers bring some knowledge of the pickled product to the task of selecting a "perfect pickle." It has been established that cucumbers "fresh pack" pickled in the jar are crisper than those that are brine salted and fermented in large vats, known as "process pack" pickles. This past summer they learned that some cucumber varieties are considerably more crisp than others. "It looks like we might improve crispness by breeding," Breene said.

The final judge of what improvements have been made in pickles through breeding and process innovations will be the public, which has increased its pickle consumption fourfold since 1930. More pickles are consumed per capita each year in the United States than any other processed vegetable, Breene reported. Americans consumed 7.3 pounds of pickles per capita in 1967 as compared to about 7 pounds of canned and frozen corn, slightly over 6 pounds of canned and frozen snap beans and almost 6 pounds of canned and frozen peas, he added.

"There is a lot of work being done elsewhere to provide for better control of the fermentation of processed pickles by using pure bacterial cultures. There is still a good deal of work that can and should be done and Dr. Davis and I hope to be considerably involved in it, "Breene said.

A Minnesota pickle producer and a major seed producer are cooperating with Breene and Davis on this research project.

TWO MINNESOTA YOUTHS RECEIVE AGRICULTURAL SCHOLARSHIPS

Two young men from Minnesota have received scholarships for their outstanding work in the field of agriculture.

Daryl Larson, <u>Belgrade</u>, was awarded the \$450 McKerrow Scholarship and Scott Skogman, <u>Cambridge</u>, won the Minnesota Livestock Breeders Association (MLBA) Scholarship of \$450.

Larson is a freshman majoring in animal science in the Institute of Agriculture, University of Minnesota. During his nine years in 4-H he specialized in the swine and poultry projects winning many championships in both areas. He exhibited the champion New Hampshire chickens at the 1969 Minnesota State Fair. Larson was a member of the Stearns County general livestock judging team which placed second at the State Fair, winning a trip to the Kansas City Poyal. He is the son of Mr. and Mrs. Raymond Larson.

Skogman is attending the Institute of Agriculture, University of Minnesota, majoring in animal science. He won many championships at the Isanti County fair during his Il years in the 4-H dairy project. Starting with one purebred calf in 1959, he now owns 14 head of registered Holsteins. He won the State Cow Clipping and State Showmanship Contests and received the Star Chapter Future Farmer of America Award and State Farmer Degree. He is the son of Mr. and Mrs. Deane Skogman.

Both the McKerrow and the MLBA Scholarship are awarded by the

Minnesota Livestock Breeders Association to graduating high school students who
have excellent 4-H Livestock records. The McKerrow Scholarship is given by
the MLBA in memory of William A. McKerrow.

174-11h-70

'DOC' BILLINGS, FORMER UM VETERINARIAN, DIES

ST. PAUL--Word was received here this week that W.A. "Doc"
Billings, 82, former University of Minnesota extension veterinarian, died
Wednesday (Dec. 9) in St. Petersburg, Florida.

Dr. Billings, who lived at St. Petersburg since he retired from the University in 1956, will be buried Saturday after services from the Beach Memorial Chapel, 301 Corey Avenue, St. Petersburg Beach.

A native of Ontario, Canada, Dr. Billings grew up in Rochester, N.Y. and received his D.V.M. degree from Cornell University, Ithaca, N.Y., in 1918. He joined the University of Minnesota faculty that year as a teacher in the Veterinary Division. In 1922 he was named extension veterinarian, a position which required extensive travel throughout the state.

Dr. Billings is perhaps best known for developing the "Minnesota Plan," a special turkey sanitation program which helped considerably to reduce the losses due to Blackhead Disease, or enteroheptatis, in turkeys.

While he worked mainly with the turkey industry, he also worked on tuberculosis and Bang's eradication programs. He played an important part in educational programs to prevent and control sheep, poultry, swine and cattle diseases. He was a leader in preventing mastitis in dairy cows, and did much work on encephalitis (sleeping sickness) in horses.

add 1--billings

He wrote a number of University publications, but was best known for "Talking Turkey," his first bulletin published in 1927. Over the years, several hundred thousand copies of the bulletin were printed and distributed. Dr. Billings is also known for his "Turkey Newsletter," which had readers in all of the 48 states, and some foreign countries. And he gained considerable recognition for his "super deluxe" turkey dressing recipe. In 1949 he received the U.S. Department of Agriculture's meritorious service award for services rendered to Minnesota farmers.

Dr. Billings is survived by his widow, Lillian, who lives at their home at 7045 Hibiscus Ave. S., St. Petersburg, Florida.

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176-vak-70

FABRICS VARY IN FLAMMABILITY

Do you consider the flammability of fabric when you buy clothing or home furnishings?

Some 1,500 deaths and 100,000 injuries a year are caused by clothing fires, according to the National Safety Council.

Children and the elderly, who are often unable to protect themselves, are most vulnerable to clothing fires. Mothers should keep this fact in mind when they purchase sleepwear for the children, clothes and blankets for the baby or a bathrobe for grandmother, advises Thelma Baierl, extension clothing specialist at the University of Minnesota. It's also well to keep the flammability danger in mind when you make frilly clothes or costumes for the children to wear in holiday programs, she adds.

Most common source of clothing ignition among adults is careless smoking. Next most frequent causes are the range, rubbish fires and heating stoves. Children are burned when their clothing ignites while they play with matches, brush up against lighted candles or when they get too close to heating and cooking stoves or to trash fires. Clothing fires also occur when flammable liquids such as gasoline or lighter fluid are spilled on clothes and accidentally ignited.

add 1--fabrics vary

Fabrics vary greatly in their flammability. The degree of flammability depends on the fiber, the weight and weave of fabric, surface of the fabric and design of the garment. Close-fitting garments are less hazardous from a fire standpoint than loose fitting ones.

Miss Baierl gives this information about the flammability of different fibers:

WOOL: Wool is the least flammable of the natural fibers. It is slow to ignite and naturally flame resistant. If wool is combined with another fiber, however, it may not be as flame resistant.

COTTON AND RAYON: They burn readily but can be treated with chemicals to make them flame retardant. Manufacturers have recently begun to use the fire retardant treatment on some clothing.

SYNTHETIC FIBERS: Nylon, polyesters and acrylics are usually less flammable than the fibers of cotton, linen and rayon, but they actually melt as they burn and can cause deep, very serious burns.

GLASS FIBERS, MODACRYLICS, SARAN: These and some other man-made fibers are fire-resistant. Glass fabrics, however, are sometimes blended or treated with finishes that make them less flame resistant.

When you select fabrics and ready-to-wear clothing, especially for children and the elderly, look for those that are flame retardant or have been treated with a permanent flame retardant finish, suggests Miss Baierl. If the label gives no information about flammability, express your concern to the sales clerk. The voice of the consumer can be effective.

E.F. FERRIN DIES: FORMER UM DEPARTMENT HEAD

E.F. Ferrin, retired head of the University of Minnesota Department of Animal Husbandry and a nationally known authority on swine, died Thursday (Dec. 10) in Evanston, Ill. He was 82 years old.

Interment will be in Ames, Iowa Saturday, Dec. 12. A memorial service is scheduled for 2 p.m. Sunday, Dec. 13. at St. Anthony Park United Methodist church, Hillside and Como, St. Paul. Prof. Ferrin formerly resided at 2110 Carter Ave., St. Paul.

Prof. Ferrin received one of the livestock industry's highest honors in 1961 when his portrait was placed in the Chicago Saddle and Sirloin Club's world famous gallery.

He joined the Minnesota staff in 1920 as a professor after serving at Iowa State University, Ames, and Kansas State University, Manhattan. He was in charge of the swine section at Minnesota from 1920 until 1949, when he became head of the Department of Animal Husbandry. He retired from the University staff in 1956, after 36 years of service.

Prof. Ferrin was a nationally known hog judge. At the University, he carried on many research projects, including studies of the feeding values of common farm grains for hogs, comparison of protein supplements and antibiotics in hog feeding and studies of full and limited feeding of hogs.

He was a member of Minnesota's Livestock Hall of Fame. He served as a director of the executive committee of the American Pork Producers' Association and was secretary of the Minnesota Swine Producers' Association for 25 years. He belonged to several professional and honorary societies and had extensive writings to his credit.

Survivors include a son Harold, Minneapolis, and a daughter, Mrs. James (Jean)

Shute, Chicago, Ill. ### 177-jms-70

MSC 8121p

Department of Information and Agricultural Journalism Institute of Agriculture University of Minnesota St. Paul, Minnesota 55101 December 14, 1970

To all counties

Immediate Release

HIGH OIL CORN OK IN SWINE RATIONS

Pigs fed high oil corn gained the same as those fed normal hybrid corn, but required less feed per pound of gain in a University of Minnesota experiment.

Animal scientist James Nordstrom and co-workers Bruce Behrens and Eugene Thompson compared the performance of pigs fed corn-soybean meal diets based on normal corn (3-4 percent oil) vs. high oil varieties (6-8 percent oil).

The best feed efficiency was obtained when 12 percent refined corn oil was supplemented to the normal corn diet to provide about 15 percent total dietary oil. However, this caused serious carcass softening, Nordstrom says.

High oil corn diets containing about 7 percent total oil resulted in a slight to moderate softening effect while diets based on normal corn with about 3 percent total oil produced relatively firm carcass fat.

Changes in body fat due to diet were confirmed by chemical tests that found higher levels of unsaturated fat in backfat of all pigs fed either high oil corn or supplementary refined corn oil.

Other carcass characteristics including backfat thickness, loin eye area and percent ham and loin were not affected by the high oil diets.

High oil corn is grown in parts of the Midwest for the corn oil industry, and questions on the effects of feeding this corn to swine prompted the research project.

Immediate Release

CORN BLIGHT QUESTIONABLE IN STATE NEXT YEAR

Few people are making predictions on the effect of southern corn leaf blight in 1971. Many factors will affect the extent and severity of this disease next season, and the importance of many of these factors is unknown at present, says Herbert G. Johnson, extension plant pathologist at the University of Minnesota.

Southern corn blight covered a greater area and was more severe in 1970 than ever before, and we don't know whether it reached a peak in 1970 or will still be rising in 1971, Johnson states.

Southern corn leaf blight was relatively light and caused little damage in Illinois in 1969, but in 1970 it was moderate to severe in many areas and reduced yields by approximately 23 percent. In 1970, Minnesota had a disease level similar to that of Illinois in 1969, Johnson points out. 'We can only speculate as to whether the disease reached its peak in Minnesota last year or whether it will still be rising in 1971. Since Minnesota is farther north than Illinois, the situation may be different."

The fungus probably survived the winter of 1969-70 as far north as southern or central Illinois, and University researchers in north central states have experiments in progress to determine whether the fungus survives in the field.

'The importance of winter survival is related to time of initial infection of corn by the fungus," Johnson explains. "Infection is expected sarlier in the season if local sources of the fungus are present and later if the spores must be carried by southerly winds."

"To many people, Minnesota summer weather appeared to be above normal in temperature and humidity in 1970; but a comparison of 1970 weather data with long term averages indicates less difference than was expected," Johnson continues.

add 1--corn blight

Warm and humid conditions with frequent rains are believed to favor the blight, and Minnesota weather during the 1971 growing season may be an important factor in disease development.

Surveys in late summer showed the southern corn leaf blight was present in about the southern 2/3 of the state. Most fields had light to trace amounts of leaf-spotting with little or no indication of ear infection.

An occasional field in the southern part of the state had a medium level of infection and varying degrees of husk and kernel infection, but there was little yield reduction even in the moderately infected fields, Johnson says.

Ear infection was more obvious in some late planted fields where there was a harvesting delay due to wet weather. One field of T-cytoplasm corn had ear infection estimated at about 90 percent of the field. This was late in the season and some kernels had a white mold growth on them that was verified to be the southern corn leaf blight fungus by laboratory tests.

This infection occurred as spots on ears and did not cover entire ears, Johnson explains. Yield and quality may have not been significantly reduced, but the high incidence of ear infection in this field is significant.

"Obviously, everyone wants high quality hybrids with N-cytoplasm for 1971 plantings. Adequate supplies of these hybrids will not be available for the 1971 crop, but are expected for 1972," according to Johnson.

He says blends of T and N-cytoplasm and straight T cytoplasm will be available in good supply for 1971, and will be used to plant the great bulk of the crop. To some extent, supplies of N-cytoplasm corn are being shifted to areas of greatest need, based on the disease level in 1970. This further reduces the supplies of N corn in northern and western areas of the corn belt.

Compromises must be made in many ways, the plant pathologist says. If the blight is severe in Minnesota in 1971, N-cytoplasm corn could be the most important production factor. However, if the blight problem in 1971 is at a level similar to that in 1970, T-cytoplasm will be good.

add 2--corn blight

"It gets down to the point of everyone doing the best he can," Johnson says. Diversification in corn seed is one alternative to the extent that it can be accomplished. N-cytoplasm seed is the best for a severe southern leaf blight situation and this seed is also resistant to yellow leaf blight.

N-cytoplasm is not resistant to all other diseases, however, so other desirable characteristics should be included. New hybrids are on N-cytoplasm during initial years of testing and many of these may be very good as commercial seed if they're available.

Blends of N and T-cytoplasm are a good compromise and will be planted to a great extent even in areas with severe leaf blight in 1970. The use of seed of pure T-cytoplasm is the big question, and it's the seed in greatest supply for 1971, according to Johnson. It is also the most susceptible to southern corn leaf blight.

In southern Illinois, there apparently are no intentions to plant T-cytoplasm corn in 1971. This is an area of severe blight damage in 1970. Central and northern Illinois will use T-cytoplasm seed when necessary to plant required acreage.

In Minnesota, a high percentage of the 1971 planting is expected to be T-cytoplasm corn due to a shortage of N-cytoplasm seed corn. A disease situation similar to that in 1970 would result in a good crop with little loss or damage. However, a more severe epidemic would cause yield and quality reductions, but probably would not cause more than a 25 percent yield loss. In southern Illinois, F₂ seed with N-cytoplasm will be planted in preference to T-cytoplasm seed, but yield reductions are anticipated.

Immediate Release

UM ANNOUNCES NEW CROP VARIETIES

Changes in field crop variety recommendations for 1971 have been announced by the University of Minnesota.

Two hard red spring semidwarf wheat varieties, Era and Fletcher, were released by the Minnesota Experiment Station in 1970 and are recommended in the state, according to Harley Otto, extension agronomist. From 1968 to 1970, Era yielded about 120 percent as much as Chris while Fletcher yielded about the same as Chris.

Both Era and Fletcher have good lodging resistance, are resistant to stem and leaf rust and tolerant to septoria, bunt and ergot. The new varieties also have high test weight and satisfactory milling characteristics, Otto says.

Era and Fletcher are lower in protein content and bake absorption than Chris, but Fletcher is better than Era for these baking characteristics.

World Seeds 1809 and Waldron were also added to the recommended list of hard red spring wheats. World Seeds 1809 is an early semidwarf with good lodging resistance and is resistant to leaf and stem rust. It has yielded 117 percent of Chris during the past 2 years. It has lower protein content and bake absorption than Chris, but higher than Era.

Waldron is a standard height variety from North Dakota. It is an early heading variety with good straw strength, rust resistance and quality. In three years of testing in Minnesota, it yielded about 108 percent of Chris. Waldron is susceptible to ergot and this caused problems in several seed production fields in 1969, Otto says.

The Hercules variety of durum wheat from Canada was placed in the "other varieties" category. It is susceptible to leaf rust and has not yielded better than other durum varieties in the state.

add 1--um announces

In winter wheat, the Montana variety Froid was also placed in the "other varieties" category since it offers no advantage over Minter and has considerably lower test reight.

A new oats variety, Otter, was released by the Minnesota Experiment Station in 1970 and is recommended in the state. Otter is similar to Garland in maturity and plant height but is equal to Lodi and superior to Garland in lodging resistance. Otter is susceptible to the prevalent race 6AF stem rust and is moderately resistant to crown rust. Otter test weight has been equal to Lodi but lower than Garland in Minnesota tests the past three years.

Changes in variety recommendations for other crops follow.

Rye--Cougar was added to the recommended list while Frontier and Pearl were dropped. Cougar has yielded more than Frontier and Pearl at most Minnesota Locations and is more resistant to lodging.

Soybeans--Wirth, an Iowa variety, was placed in the "other varieties" category because it did not offer any advantages over Chippewa 64 and is susceptible to Phytophthora root rot.

Dry, Edible Beans--A pinto bean variety is recommended for the first time. The variety, UI 114, has exceeded all others in Minnesota yield tests.

The complete list of recommended varieties for 1971 follows:

Barley: Conquest, Dickson, Larker, Primus II Oats: Garland, Lodi, Otter, Portal, Sioux

Rye: Cougar, VonLochow
Wheat: Hard Red Spring:

Standard Height Varieties: Chris, Manitou, Polk, Waldron Semidwarf Varieties: Era, Fletcher, World Seeds 1809

Durum: Lakota, Leeds, Wells

Winter: Minter

Millet: Turghai, Empire, White Wonder

Flax: Linott, Nored, Norstar, Summit, Windom

Soybeans: Altona, Anoka, Chippewa 64, Clay, Corsoy, Hark, Merit, Norman,

Portage, Rampage, Traverse

Sunflowers: Arrowhead, Mingren, Peredovik, VNIIMK 89.31

Dry Peas: Century, Chancellor Birdsfoot Trefoil: Empire Red Clover: Dollard, Lakeland

Bromegrass: Blair, Gaylor, Fox, Lincoln, Sac, Saratoga

Timothy: Climax, Itasca, Lorain

add 2--um announces

For more complete information, ask your county extension agent for a copy of the latest issue of University of Minnesota Miscellaneous Report 24, "Varietal Trials of Farm Crops." It will be available in early January. Copies are also available from the Bulletin Room, University of Minnesota, St. Paul, Minnesota 55101.

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To all counties

Immediate Release

IN BRIEF

Cutback in Farrowings Could Ease Low Hog Prices. Hog prices in late 1971 will depend largely on changes in next spring's pig crop. Ken Egertson, extension economist at the University of Minnesota, says if hog producers cut back on expansion plans by next spring, further unprofitable prices could be avoided late next year.

Egertson encourages hog producers to carefully assess the effect of increased feed costs on profit prospects when making plans for spring 1971 farrowings.

* * * *

Corn Rootworm Problems. Populations of the corn rootworm more than doubled in Minnesota cornfields the past growing season. John Lofgren, extension entomologist at the University of Minnesota, says the number of adult beetles was more than 30,000 per acre this year, compared to about 15,000 per acre in 1969.

Lofgren says the corn rootworm is especially troublesome where corn follows corn. If you plan to plant corn next spring on fields were the crop was grown this year, make plans for soil insecticide treatments to head off this potential problem. See your county extension agent for specific recommendations on corn rootworm control.

* * * *

Prevent Bark Injury to Trees. Bark injury to the trunks of smooth-barked or young trees may be a problem during the winter months. Wrap the trunks with burlap, paper or aluminum foil. A board attached to the southwest side will also help. The object is to shade the trunk on the southwest side from the warm winter rays of the sun.

To all counties

ATT: EXTENSION HOME ECONOMISTS

Immediate Release

CARE IN HANDLING FOOD IMPORTANT DURING HOLIDAYS

In the bustle of holiday preparations, it's easy to become careless about handling food.

However, poor food handling in the home may result in spoiled food or even food poisoning.

Edmund A. Zottola, extension food microbiologist at the University of Minnesota, says the main points to remember in safe food handling are to keep foods clean and to watch temperatures. Keep foods refrigerated until you are ready to prepare them, serve them immediately after cooking and refrigerate leftovers promptly.

Here are specific suggestions from the University food microbiologist to prevent loss in quality of food as well as food spoilage:

- . Keep food hot--above 140°F.--until it is served. If it is not to be eaten immediately after cooking, cool it rapidly to 45°F. or below and store it at that temperature until you serve it.
- . Keep refrigerated all salads and other foods to be eaten cold until you are ready to serve them.
- . Cool leftover foods promptly and refrigerate them. Never leave food on the kitchen counter to cool. You may want to cool large quantities of leftovers in ice or running water; otherwise, the most effective way to cool them is in the refrigerator.
- . Reheat leftovers to an internal temperature of 165°F . and serve them promptly after heating.
- . To destroy bacteria, clean with soap and water or a cleanser all surfaces on which you prepared raw meat or poultry. Never place cooked, ready-to-serve meat or poultry on the same surface on which you prepared the raw product.
- . Wash your hands aften when preparing food, especially after handling raw meat or poultry.

To all counties

ATT: EXTENSION HOME ECONOMISTS

Immediate Release

AMATEUR RURAL ARTISTS INVITED TO EXHIBIT

If you're an amateur rural artist, you're invited to exhibit original work in the University of Minnesota's 20th Town/Country Art Show to be held March 14-April 2 on the St. Paul Campus.

Entry dates this year are February 22-February 27.

Amateur painters and sculptors, including high school students, living in rural Minnesota or a Minnesota town of 25,000 or less are eligible to enter.

The art show is sponsored by the University's Agricultural Extension Service and the General Extension Division of the University.

Entries from high school students and other young people are especially sought this year according to A. Russell Barton, coordinator of the show.

Each artist may enter one painting and one sculpture but not two in either medium. Sculpture entries should be of a size easily handled. Works must be original, not copies, and not previously exhibited in former Minnesota Town/Country Art Shows. Photographs are not accepted.

Entry rules and registration labels may be secured by writing Minnesota Town/Country Art Show, 106 Agricultural Engineering, University of Minnesota, St. Paul, Minnesota 55101.

Last year some 300 amateur rural artists exhibited their works in the show.

4-H News
To all Counties
Tunnediate Release

SWEATER KNITS ARE SEWING NEWS

Sweater knits are some of the newest and most popular fashion fabrics this season for both casual wear and special occasions.

Why don't you make your own sweater knit fashions? Your hard-earned money will stretch further and you may gain envious looks when you sew these new styles yourself.

Cables, ribs and pebbly textures are popular sweater knit fabrics. You will receive the most satisfaction from your garment if you choose patterns with simple design lines and details, suggests Thelma Baierl, extension clothing specialist at the University of Minnesota. Jumpsuits, tunics and pants, simple dresses and midi vests are great choices this season. Remember that if your measurements are between pattern sizes, choose the smaller size.

When you are preparing to cut your pattern, lay the pattern following the lengthwise ribs of the knits as you would the grain line. Be careful not to stretch the fabric during cutting.

Fabrics vary in the amount of natural stretch they have, so experiment with scraps before stitching the garment. Stretching the seam gently as you stitch will usually incorporate the needed "give." Reinforce seams that will be under a strain by stitching a second time. Zigzag seam edges to prevent fraying.

Use interfacing around edges to keep them from rolling. Apply the interfacing directly to the facings instead of to the garment. Make only machine stitched buttonholes and interface the buttonhole area.

add 1--sweater knits

Both invisible and regular zippers are good in sweater knits. If you finish the last step by hand when applying a regular zipper, it will have an almost invisible look.

Finishing hem edges may be done with one or two rows of edge stitching or with stretch lace hem tape. Lap the tape & inch over the hem edge, zigzag, and catch-stitch the lace to the garment.

It is important to press your sweater knit garment lightly with steam to avoid flattening the knit. Barely let the iron touch the fabric and use the correct temperature for the fiber content. However, often the steam and finger pressing will do the work without touching the iron to the fabric.

Check the end of the fabric for care instructions.

Immediate Release

ENTRY DATES FOR TOWN/COUNTRY ART SHOW ANNOUNCED

Entry dates for this year's University of Minnesota Town/Country Art

Show are Feb. 22-Feb. 27, according to an announcement by A. Russell Barton,
coordinator.

The show will be held on the St. Paul Campus, March 14-April 2. It is being sponsored for the 20th year by the University's Agricultural Extension Service and General Extension Division.

Amateur painters and sculptors living in rural Minnesota or in a Minnesota town of 25,000 or less are eligible to enter. Entries from high school students and other young people are especially sought this year, Barton said.

Artists may enter one painting and one piece of sculpture. Works must be original and not previously exhibited in any Town/Country Art Show.

Entry rules and labels may be obtained by writing Minnesota Town/Country Art Show, 106 Agricultural Engineering, University of Minnesota, St. Paul, Minn. 55101.

Immediate Pelease

MINNESOTA 4-H'ER CHOSEN FOR SCHOLARSHIP

Tudy Lynn Aykens, Steen, Minn., has been selected winner of the \$400 Ball 4-H scholarship for her outstanding work in the 4-H foods and nutrition project, particularly in food preservation.

Miss Aykens has been a 4-H member for nine years. She has won the 4-H Key Award, 20 county 4-H project pins and two special county awards for foods. She has attended the Citizenship Short Course in Wasington, D.C. and has been active in the Pock County dress revue, Share-the-Fun and radio speaking contests. She has presented 34 local, 10 county and four state 4-H demonstrations.

Miss Aykens is currently a freshman at Mankato State College, majoring in home economics with emphasis on food and nutrition. She is the daughter of Mr. and Mrs. Jay F. Aykens.

The scholarship is donated by the Ball Corporation of Muncie, Indiana.

FLAMMABILITY STANDARDS NEEDED FOR CLOTHING

Flammability standards should be set for clothing for the very young and for the aging, in the interest of safety.

That's the opinion of an extension clothing specialist at the University of Minnesota, Thelma Baierl. Miss Baierl points out that flammability standards have been set for carpeting, effective in April, 1971. Similar standards are being considered for children's sleepwear, dresses and blouses and for mattresses.

Consumers concerned about flammability of clothing and the importance of setting flammability standards should write to their congressmen, Miss Baierl suggests. Hearings will be conducted in preparation for standards to be set by the Department of Commerce.

Although most fabrics used in clothing today pass the hazardous flammability test--exposure to an open flame for one second--there have been serious accidents involving certain brush-type fabrics which were almost instantly ignited.

Fabrics vary in their flammability, but standards need to be set to reduce risks of fire and burns to a minimum, Miss Baierl says. For example, cotton and rayon are cellulose fibers that burn readily. They can be made more flame resistant by chemical finishing. Research in this area is being expanded.

It is always important to remember, however, that "people carelessness" is the primary cause of serious burns and accidents from clothing fires. Men, women and children need to exercise care around fire and heating elements of various kinds. Clothes are frequently set afire when a child or an adult brushes against a room heater from which safety grills have been removed. It is still alarmingly commonplace to read of serious injury to children playing with matches, adults smoking in bed and homemakers negligent around the open flames of a gas range, Miss Baierl adds.

178-jbn-70

Tree Tips:

CHRISTMAS TREES CAN BE SAFE, UM FXPERT SAYS

Christmas trees can be kept safely in the home or office if a few simple precautions are observed, according to Marvin Smith, extension forester at the University of Minnesota, St. Paul.

The National Christmas Tree Growers' Association said natural Christmas trees are safer in American homes than kitchen stoves, furnaces, matches, electricity and other things that cause fire losses. About one out of every thousand fires in 1969 were caused by Christmas trees, according to the Fire Protection Association, and 45 million American families used natural Christmas trees in their homes.

Make sure that the tree is fresh. Trees with needles that break rather than bendare not fresh. Another freshness test is bounce the tree stump firmly on the ground. If several needles fall to the ground, the tree is not fresh, he added.

Also, fresh trees have moist, sticky stumps.

Keep the tree outside in water or snow until you're ready to decorate it to retain its freshness. Saw off the tree trunk at an angle at least one inch above the original cut end before placing the tree in a stand.

add 1--christmas trees

Keep the tree standing in water or in a bucket of wet sand during the entire period the tree is in the house and add a pint to a quart of water to the stand or bucket every day, Smith said.

Don't decorate trees with cotton, paper or other materials that burn readily and avoid wax candles and other open flames on trees. Lights and wiring should be checked for worn spots and cracks and electric circuits should not be overloaded.

Christmas trees need not necessarily be discarded immediately after the holiday season. They can be placed in the yards for bird havens or grouped together for landscape attractions. The branches can be used as plant mulch and the trunk can be sawed and used for fireplace wood.

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181-daz-70

Sanitation Standards:

WARNING TO MINNESOTA LAKESHORE PROPERTY OWNERS

Sewage disposal systems for lakeshore homes and cottages will have to conform to county sanitation code standards by July 1, 1977, at the latest, under Minnesota's new Shoreland Management Program.

Under a 1969 Minnesota law which controls the use and development of shorelands, county governments are required to adopt a sanitation code that will establish standards for on-site waste disposal facilities, such as septic tanks, on lakeshore lots by at least July 1, 1972.

Disposal system on lakeshore lots that do not meet requirements in these codes must be replaced or altered to conform to the standards within 5 years after the adoption of the code.

According to Robert W. Snyder, extension land economist at the University of Minnesota, some lakeshore lots have been sold with improper conditions for septic tanks to people who are unaware of this.

"It is a rather critical matter to a new homeowner or lot owner, for example, when he finds out he can't actually install a septic tank system on his land," he added.

Many recreational homes in the state exist on lakeshore land where an individual sewage disposal system isn't feasible because of water table considerations, according to Roger Machmeier, extension agricultural engineer at the University. He says the soil absorption system needs to be at least 4 feet above the water table to operate properly and avoid contamination of the ground water supply.

-more-

Sewage effluent supplies nutrients which can cause vigorous growth of plant life in water. This can result in an alarming growth of weeks and algae even in some lakes in sparsely populated resort areas of the state.

To prevent this possibility, nutrients must be removed from sewage effluent. Septic tanks used for many lakeshore cottages and homes provide only limited treatment of sewage. In some situations, a sewage disposal system other than an individual system may be the answer, Machmeier says.

An information memo on shoreland management standards is available by writing R.W. Snyder at the University of Minnesota, St. Paul, Minn. 55101.

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182 - daz - 70

Researchers Predict:

IMPROVED WEATHER FORECASTING TO AID FARMERS, URBANITES

Farmers will be able to make better use of their time as weather forecasting improves by employing satellites and computers during the 1970's, according to Professor Donald G. Baker of the University of Minnesota's Department of Soil Science and Earl L. Kuehnast, state climatoligist.

Their comments appeared in a recent issue of Minnesota Science, a University publication.

The forecast period will be lengthened to about 5 to 10 days from the present 1 to 3-day period, Baker and Kuehnast said.

Farmers who are irrigating will be interested in an associated forecast of the amount of water to be consumed by a crop during the forecast period. Greater irrigation efficiency is expected in the 1970's with the irrigation and precipitation forecasts, they said.

Even with the great strides possible in the 70's, longer forecasts, such as greater than a week or up to a season, would appear to be out of the question, Kuehnast and Baker added.

Improved 5 to 10-day forecasts will bring "informational guidelines" for people living and working in congested areas, they said. The "informational guidelines" will include the times and severity of atmospheric conditions that are conducive to air pollution. During such periods, the farmer would be concerned about dust from plowing or insecticide and herbicide spraying.

"Weather modification holds great promise in store for the next decade,"
Kuehnast and Baker said. Greater strides will be taken in altering severe
storms. Modification of thunderstorms that may develop into tornadoes and
hurricanes and reduction of hail intensity and size are nearly within man's
ability now, they added. "Control of local fog has already met with some
small success and while of no greater concern to the farmer, it is vital to
the transportation industry," they said.

Kuehnast and Baker said they expected local weather to be modified "on a more or less regular basis within the next decade" with initial efforts concentrated in and around high density commercial and population centers. "It may be some time before rural areas experience direct benefits from these efforts," they added.

CHRISTMAS COSTS CAN FLOOR YOU

Are you going overboard on Christmas spending?

Some families plan what they can afford and follow a carefully thought out plan that keeps the family financial ship afloat. Other families may buy now and worry about paying Christmas bills later. That approach, however, can lead to frustration for months to come, says Mary Frances Lamison, extension home management specialist at the University of Minnesota.

Careful planning can help provide a satisfying Christmas for your family and the ability to pay. Miss Lamison suggests you ask yourself these questions: Why do I feel I must spend a particular amount on any one person? Is it to repay him for an expensive present I received? Is it to impress others? Or because I can afford the gift and throught the recipient would like it? Am I giving the children something they really want or need, or am I fulfilling a need of my own by choosing this item?

It is estimated that U.S. parents spend \$55 on Christmas gifts for each child. But the University home management specialist points out that gifts for the children are only a part of the total cost of Christmas. In figuring holiday costs, keep in mind: gifts of husband and wife to each other; gifts to relatives, family, business associates; gift wrappings; Christmas cards and postage; Christmas tree and decorations; transportation and parking costs while shopping; meals eaten out while shopping; traditional Christmas foods; Christmas entertaining; new clothes for holiday events; donations to organizations at holiday time; investment in school and church programs for food, tickets, costumes.

If your budget is tight, ask yourself how important these expenditures are to you. Splurging now and paying later may cause real hardship in the months to come. Understanding the total cost of Christmas spending and what motivates you to buy certain items may help you to greater satisfaction in spending, Miss Lamison says.

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183-jbn-70

U SCIENTISTS STUDY RED LAKES FISHERIES

A 20-year study on the Red Lakes commercial fisheries in northern Minnesota by University of Minnesota scientists has provided insight into the dynamics of exploited white fish populations. The entire fishery has been monitored and the production was small enough to be included in a single comprehensive study.

The study has shown that large fluctuations in whitefish populations there occurred because stock has been reduced some years to a level which reduces successful reproduction, according to researchers John J. Peterka and Lloyd L. Smith Jr.

"A combination of two things can reduce the population of whitefish in the Red Lakes during any given year," Smith said. "Either a reduction of spawning stock can occur from overfishing or it is possible that the eggs do not hatch well because of adverse environmental factors such as falling water levels during egg incubation."

Other ecological conditions, such as water temperatures, have had little effect on whitefish abundance in the Red Lakes, the scientists say.

Although extreme fluctuations in annual catch in the lakes have marked the fishery throughout its existence, sustained downward trends of annual catch and reduction in the average size of fish caught have not appeared, they say.

The whitefish catches in 1939 to 1942 varied from 1,124 to 2,878 pounds annually, but the whitefish catch for 1959 was an all time high of over 290,000 pounds. Catches in recent years have been down, the scientists say.

The Red Lakes commercial fisheries study found no correlation between annual growth of whitefish and growing season, air temperatures, wind velocities, water levels or abundance of whitefish.

Red Lakes whitefish were found to grow more rapidly than whitefish studied in other North America waters. The whitefish also are proportionately heavier than those from other North American waters.

185-bjc-70

Immediate Pelease

ECONOMISTS PREDICT GROWTH IN FERTILIZER INDUSTRY

The outlook for Minnesota's fertilizer industry is optomistic with predicted sales increases despite the decreasing acreage of cropland.

By 1975, fertilizer sales in Minnesota are expected to reach 2,400,000 tons, nearly two million tons over the 1964 usage. This estimate is based on the recent average annual growth rate of fertilizer sales, according to a recent study by University of Minnesota economists Dale C. Dahl and Pobert A. Rathjen and University of Illinois economist William G. Bursch.

Offsetting this trend is the downward trend of productive cropland. Productive Minnesota cropland in 1975 is expected to be 16.5 million acres as compared with the 21.0 million acres in 1954.

Increased fertilizer sales will result from heavier fertilizer applications and an increased percentage of fertilized cropland, the economists explain.

By 1975, 192 pounds of fertilizer per acre is expected to be used on 62 percent of the producing cropland, as compared with the 1964 use of 172 pounds per acre on 39 percent of the cropland.

The greatest growth in the industry is expected to be in the bulk blending plants. The number of bulk blending plants in Minnesota has grown from 29 plants to 204 in 1966.

-more-

add 1--economists predict

Bulk blending adapts itself well in areas where various fertilizer ratios are needed such as the south half of the state and the Red River Valley. The plants do soil testing in an effort to satisfy local soil nutrient deficiencies.

Bulk blending plants have low production and distribution costs. They receive fertilizer directly from the producer, thus eliminating the middle man manufacturer. Bulk-mixed grades will continue to replace bagged fertilizer because of the low handling costs and the labor saved, the economists say.

The greatest potential for additional blending plants is the southwestern part of Minnesota, they add.

However, bulk blending has its drawbacks. Where precise placement and homogeneity are primary concerns, manufactured fertilizer are better adapted than blends, the economists say.

Further information on Minnesota's fertilizer industry can be obtained from Miscellaneous Report 76, "The Minnesota Fertilizer Industry: Trends and Prospects," published by the University's Agricultural Experiment Station. Write for a copy to the Bulletin Room, University of Minnesota, St. Paul, Minn., 55101.

Immediate Release

CLOTHING DRYER IS KEY TO SATISFACTION WITH DURABLE PRESS

Planning to buy a clothes dryer?

Among benefits of owning a dryer are the time and energy it saves.

Probably more important, however, is that the key to satisfaction with durable press clothes is to tumble them dry in a clothes dryer, says Mrs. Wanda Olson, extension household equipment specialist at the University of Minnesota.

Because a dryer is a long-time investment, don't select one on the spur of the moment, cautions Mrs. Olson.

Both gas and electric dryers operate equally well. The initial cost of a gas dryer is usually greater than that of an electric model, but the operating cost is less. In making a choice between the two, consider your use of gas and electricity in appliances you already have.

If you don't have space for a standard-size dryer or if you live where other limitations prohibit the use of a regular dryer, a compact dryer may be the answer for you. These mini-dryers operate on regular 115-volt household current, can be set on a counter or shelf or fitted with casters and rolled into a closet when not in use. The units are about 24 inches wide, 15 inches deep and 30 inches high.

Mrs. Olson lists some considerations to keep in mind in shopping for a dryer:

add 1--clothes dryer

- * Examine controls to see if the various cycles offer flexibility to dry the wide variety of today's fabrics. Controls for the cycles should be easy to understand and to operate. Some models have a permanent press cycle, a regular fabrics cycle for cottons and linens, a damp dry cycle and an air fluff cycle without heat.
- * Decide whether you want a manual control which you can set for the desired drying time or an automatic control which shuts off the dryer when the load has been properly dried. An automatic control offers the most convenience and accuracy. It literally "feels" the clothes and automatically shuts off when the clothes are dried properly.
- * Check on safety features. For example, does the dryer stop in seconds if the dryer door is opened during use? If it is an electric dryer, be sure it carries the Underwriters Laboratories, Inc. seal (UL) indicating it is safe to use. If it is a gas dryer, it should carry both the UL seal and the American Gas Association (AGA) seal, indicating it has passed certain requirements for performance.
- * Find out whether the dryer cabinet remains cool while the dryer operates so the appliance can be installed in any area of the home without changing room temperature.
 - * Check the filter. Is it easily cleaned?
- * Buy from an established dealer who will offer efficient, follow-up service.

To all counties

Immediate release

SWINE FEEDERS'
DAYS SCHEDULED
IN MID-JANUARY

The latest in swine research will be featured at three Swine Feeders' Days sponsored by the University of Minnesota in mid-January.

The events are scheduled at the following dates and locations:

January 12, Southern Experiment Station, Waseca.

January 13, Hi Lo Club, south of Lakefield.

January 14, West Central Experiment Station, Morris.

One of the highlights of the program will be a report on new concepts in swine housing by A. H. Jensen from the University of Illinois.

University of Minnesota specialists will discuss care and management of sows and baby pigs, preventive medicine programs for baby pigs and hog production system comparisons.

The events will begin at 10:00 a.m. and conclude with a question and answer period at 3:00 p.m.

To all counties

ATT: EXTENSION HOME ECONOMISTS

Immediate Release

COLD WEATHER
DRIVING DEMANDS
SAFETY TECHNIQUES

	Early	darkne	ess at	this t	ime of	year,	snow a	and	ice o	n h	lghway	3, 81	ubzero	
t em per	rature	sthe	se are	among	the fa	ctors	that ma	ake	drivi	ing l	nazardo	us :	in win	ter.
					-		Count	ty e	xtens	ion	home e	con	omist,	passes
on son	ne tip	s from	safety	speci	alists	to he	lp prev	vent	acci	dent	s in o	:01d	weath	er
drivi	ıg.													

- . Be alert to road conditions and adjust driving speed and spacing between cars accordingly. Wet paving, wet leaves, light rain or even slight moisture or dirt on the road can cause slick driving.
- . Take special precautions when driving at dusk, the time when visibility is poorest.
- . Watch out for icy patches in shaded areas, beneath overpasses and on bridges. Unexpected invisible slick spots may cause skidding. When the temperature is at 32 degrees, it's hardest to stop.
 - . Postpone travel when there are warnings of a severe storm.
- . If your windshield fogs, open the windows slightly, run the defroster and fan.
- . Don't drive in a heavy fog if you can avoid it. If it is necessary to drive, stay to the far right and watch the side of the road carefully. Use parking or fog lights. Keep the windshield wiper and defroster going. Pump your brakes occasionally because flashing red is more likely to be seen by the driver behind you.
- . If the paving is slick, let up gently on the brake. Avoid quick starts, adden stops and abrupt turns.
 - . Don't brake in a skid. Steer in the direction the rear wheels are sliding.
- . If you are stuck in snow, sand, mud or ice, try a rocking technique, but don't race your engine.
 - . Keep your side window open for ventilation.
 - . Carry warm clothing, a blanket and a shovel in the car for emergencies.
- . Always be alert to the mistakes of others so you can avoid trouble for yourself.

When Selecting Seed Corn:

CONSIDER OTHER FACTORS, THEN RESISTANCE TO SOUTHERN BLIGHT

Minnesota corn farmers faced with the decision of what kind of seed to buy due to the possibility of southern corn leaf blight in 1971 should first use the same criteria they've used in the past.

"Continue to select corn hybrids on factors such as yield, lodging, insect and disease resistance. Then when you've made your selection, consider the cytoplasm type for resistance to southern corn leaf blight," suggests Dale Hicks, extension agronomist at the University of Minnesota.

Hicks bases these suggestions on the severity of southern leaf blight in Minnesota during 1970 and the expected seed supply for 1971.

"Many people are asking about the difference between N, B and T seed," Hicks says.

N seed is produced by hand detasseling--the plants have normal cytoplasm and are male fertile. Seed labeled N is tolerant to race T of the southern corn leaf blight.

Seed labeled T is susceptible to race T of southern corn blight. This seed is produced by using plants with male sterile cytoplasm as the female with a male which contains a fertility restorer gene. The hybrid plants produce tassels with fertile pollen.

add 1--southern blight

Seed labeled B is a mixture of N and T cytoplasm type, Hicks explains, and is produced using male sterile and hand detasseled plants. Male sterile rows and detasseled rows are usually planted together in the seed production field, and the mixing is done during harvesting and processing.

This seed production method for B seed provides hybrids with both male sterile and male fertile plants in farmer's cornfields. They are blends of cytoplasm types, not a blend of genetically different hybrids, Hicks points out. Selection of the word "blend" to describe the B class of hybrid may have been unfortunate, since many farmers associate "mixture of varieties" with the word blend.

Hicks says most B labeled seed will probably be 50 percent N and 50 percent T--the label will specify. Plants in the mixture with T cytoplasm are susceptible and those with N are tolerant to race T of the southern leaf blight fungus.

Without southern leaf blight, there should be little difference in yields between N, B, or T cytoplasm types for any one hybrid.

Usually seed with N ctyoplasm type will cost the most, B will be intermediate and T will be lowest in cost, according to Hicks. Some reasons for the increased costs for N seed include lower yields in seed production fields, higher corn prices plus increased labor requirements for detasseling, removing infected ears and extra handling during processing.

"From the farmer's standpoint, the cost of N seed represents an increased production cost, but it may be justified as an insurance factor," the agronomist adds.

Corn companies have recently estimated the amount of each type seed available in the states of Minnesota, Michigan, Wisconsin and North Dakota. The proportions were 20 percent N, 28 percent B and 52 percent T. However, the amount of each class of seed varies among companies.

add 2--southern blight

Hicks suggests that Minnesota farmers first select the hybrids they want to plant, then consider cytoplasm types. The priority for ctyoplasm types should be N, B and T, in that order. If a given hybrid is available with N ctyoplasm, this should be the first choice, with B second and T third.

"But if the hybrid you select is available only with T cytoplasm, don't buy another hybrid just because it has N or B cytoplasm," Hicks advises.

"You may select another hybrid with N ctyoplasm, but don't base your choice just on cytoplasm type. Consider other production factors such as yield and resistance to insects and other diseases which are almost cerain to be prevalent next year."

If you can't buy N or B seed, don't select second generation (F₂) seed in preference to T seed, Hicks advises. The yield reduction will range from 15 to 35 percent, which is greater than that due to southern corn blight in most areas in 1970.

To all counties

Immediate release

IN BRIEF

Adjust Hog Feeders. You can cut hog feed costs by paying attention to details such as feeder adjustment. In an Oklahoma study, feed wastage ran as high as 33 percent when feeders were not properly adjusted. Keeping these facts in mind will help reduce waste to a minimum:

- * Keep the level of feed in the trough extremely low. It doesn't hurt gain or efficiency if pigs must work feed out under the adjustable slide.
- * Lids over the troughs help keep pigs from backing up and dropping feed on the floor.
 - * Pelleting or soaking usually helps reduce waste.
- * Pigs won't pick spilled feed off the floor as long as there is feed in the feeder.

* * * *

Supplement for Beef Cows. Beef cows turned into cornstalks can get along without supplemental protein for a while, but weathered cornstalks and crop residue don't have enough protein to meet requirements. University of Minnesota animal scientists say cows nursing late calves should be provided with protein blocks, or fed 5 pounds of good quality hay per head daily. The protein requirement can also be met by feeding one-half to one pound of 40 percent protein supplement per day.

Protein blocks will take care of the cow's needs with little labor involved. If you use protein blocks, provide one block for each 15 cows so each cow will have access. Be sure to place the blocks where they will remain clean and dry--such as in some 2-inch lumber on the ground troughs.

Mineral and salt should be provided free-choice.

* * * *

<u>Fertilize House Plants Sparingly</u>. Don't overdo the fertilizer on house plants during the early winter months. Short daylight periods slow growth, which means there's a smaller demand for plant nutrients. Excess fertilizer can accumulate in the soil to a concentration that's toxic to the plants.

* * * *

FREEZE SOME OF THOSE GIFTS OF FOOD

Many of those gifts of food you receive at a time when your larder is already overstocked can be frozen successfully for use later when you'll appreciate them more.

If you suspect that a package you receive in the mail is a gift of food, open it immediately and decide then whether the food should be refrigerated, frozen, stored in some other way or eaten immediately. E.A. Zottola, extension bacteriologist at the University of Minnesota, warns that the package might contain sausage, other meat or poultry which will spoil if it is left at room temperature under the Christmas tree for several days.

Smoked turkey, smoked and processed meats like sausage, hams and smoked fish can be kept for as long as a week or two in the refrigerator—but they should be refrigerated as soon as you receive them. If you cannot use them within a short period, freezing will preserve them.

Mrs. Shirley Munson, food scientist at the University of Minnesota, gives these tips on freezing various gifts of food you may receive:

. Hams, sausage, smoked turkey, smoked fish. It is best to use some of the sausages by the end of two months, since quality begins to deteriorate after that time, although they are perfectly safe to eat. Smoked fish and smoked turkey will keep in the freezer longer than ham without losing quality. Be sure to wrap the meats and fish in a good freezer wrap such as a saran type or freezer foil to keep out the oxygen that hastens rancidity. Plastic bags do not provide sufficient protection. It's best not to freeze canned hams, since freezing may cause the seam of the container to break. Canned hams, 3 pounds or larger, will keep in the refrigerator almost indefinitely.

add 1-- freeze food

. Cheese. Freezing will preserve cheese for six months or longer, although the texture may change somewhat after freezing. For freezing, cut the cheese into half-pound pieces or smaller and wrap in aluminum freezer foil or saran-type wrap, pressing the wrap tightly against the cheese to eliminate air pockets. Small cheeses may be left in their original packages, but overwrap them. When freezing a salty cheese like blue or Nuworld, use another wrap between the cheese and the foil or the salt may eat through the foil.

Take the frozen cheese out of the freezer well in advance of using it so it can thaw in its wrapper in the refrigerator. Once it is thawed, let it stand at room temperature an hour before serving.

- . Nuts, Keep in a tin can or in glass jars. Avoid leaving head space in a metal can or glass jar. If there is space left, fill with crushed saran-type wrap or waxed paper. Salted nuts will keep in the freezer about 6 months, unsalted nuts from 9 to 12 months.
- . Candy. Almost all homemade or commercial candies keep fresh for a year or longer when frozen and kept at 0°F. Spun candy chips, chocolate-covered nuts and candy with hard centers may crack or split. Overwrap boxes with a good moisture-proof freezer wrap to prevent damage from moisture condensation when the candy thaws. When you take the candy out of the freezer, don't remove the wrap until the candy has warmed to room temperature--from 4 to 8 hours--so the chocolate will not turn white.
- . Fancy breads, rolls, cookies. Slip into a polyethylene bag for freezing or re-wrap in aluminum foil or saran-type wrap. If breads or cookies are frosted, the frosting will probably dry out in freezing.
- . Fruit cake. When tightly wrapped or kept in a tin can and frozen, fruit cake will keep indefinitely. It will also keep well in the refrigerator.

To all counties

ATT: EXTENSION HOME ECONOMISTS

Immediate Release

LOW HEAT
IS KEY TO
JUICY ROAST

The secret of juicy, tender oven roasts with a minimum of shrinkage is to use a low temperature of 275°F, says County Extension Home Economist

"More marriages might be saved if wives turned down the heat of the oven when roasting meat," in the opinion of Sandra Brookover, U.S. Department of Agriculture meats specialist.

To be sure you get the desired degree of donesess, use a meat thermometer.

The thermometer will tell you, for example, when the beef rib roast is medium,

medium rare or rare.

However, many homemakers are not aware that they should take a roast out of the oven 10° early. If you want the beef rib roast to be medium rare—which would be 150°F, internal temperature on the meat thermometer—take the roast out when the temperature shows 140°F. The roast will continue to cook after you take it out of the oven. While it is standing to set the juices, the temperature will go up to 150°—and you'll have a perfect roast.

Searing a roast before putting it into the oven is an unnecessary step.

Searing does not seal in the juices. They will continue to seep out as the roast cooks.

4-H News
TO ALL COUNTIES
Tmmediate Release

APPLY NOW FOR 4-H TEEN CARAVAN

Are you interested in seeing other countries, meeting new friends and learning new customs? If you are, then 4-H Teen Caravan may be for you.

Applications for the 1971 4-H Teen Caravan program must be submitted to
the State 4-H Office by January 15, according to County Agent

(Name)

Each year teen caravan groups of about 10 to 15 4-H'ers spend six summer weeks with individual host families and a 10-day educational group tour of nearby countries. Caravaners learn about their host country, the customs of the people, 4-H in another country and they gain many interesting friends.

To be eligible for the program, you must be a 4-H member between 17 and 19 years old, have good physical health, be willing to learn about others and be interested in international affairs. Each participant is responsible for all his own expenses. Host country costs vary depending on the country. The average is about \$950.00°.

Countries under consideration for this year are: Barbados, Trinidad-Tobango, Nicaragua, Turkey, Austria, Dermark, Ireland, Italy, Sweden; Spain and the Netherlands.

You may pick up your application form from County Agent (Name)
at the county extension office.

The 4-H Teen Caravan is conducted by the National 4-H Foundation in behalf of the Cooperative Extension Service.

To all counties

Immediate release

HOG PRODUCERS: CONSIDER HIGH LYSINE CORN

If you're a pork producer who grows your own corn, you may want to consider setting at least a small field aside to grow high lysine corn.

High lysine corn can reduce the supplementary protein required for young pigs (40-100 pounds) by one-third or more, says James Nordstrom, University of Minnesota animal scientist. Finishing hogs (125-220 pounds) fed high lysine corn alone have gained just as well as pigs fed a ration of regular hybrid corn plus soybean meal.

This could mean an overall reduction of 60 percent for protein supplement if high lysine corn is fed from weaning to market weight, Nordstrom says. The actual saving in dollars for the hog feeder will depend on the difference in cost of corn and supplement.

The potential saving to Minnesota swine producers would be 200,000 tons of 40 percent protein supplement. So a cost difference of \$20 a ton between corn and supplement represents a possible saving of \$4 million.

Some of the disadvantages of high lysine corn have been lower yields, test weight and kernel quality. However, these problems are being overcome and many farmers have reported yields of 90 to 95 percent as much high lysine corn as regular hybrid corn.

To all counties

Immediate release

DO MINOR PLUMBING CHORES YOURSELF

You can save time and avoid delays by making minor plumbing repairs yourself.

Jobs that you can do with a few basic tools include:

- * Repairing water faucets and valves.
- * Repairing leaks in pipes and tanks.
- * Thawing frozen pipes.
- * Repairing water closets.
- * And, cleaning clogged drains.

However, extensive plumbing repairs or alterations in the plumbing system usually require authorization from local authorities and possibly inspection of the completed work. Such work should be done by a qualified or licensed plumber.

If you're interested in doing minor plumbing chores, ask your county extension agent for a copy of Farmer's Bulletin No. 2202, USDA, entitled "Simple Plumbing Repairs for the Home and Farmstead." You can also write for a copy to the Bulletin Room, University of Minnesota, St. Paul, Minnesota, 55101.

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READ INSTRUCTIONS TO GET SATISFACTION FROM CLOTHES DRYER

If you're the owner of a new clothes dryer, your satisfaction with it and the results it gives will depend upon following the manufacturer's directions for its use.

Mrs. Wanda Olson, extension household equipment specialist at the University of Minnesota, points out that too many owners of new appliances fail to read and follow instructions and consequently do not use the equipment properly.

She gives a few simple guidelines to new owners of clothes dryers:

- . Prevent wrinkles by avoiding overcrowding. Give durable press garments, draperies and household lines plenty of room to tumble. Many wrinkles are created simply because items cannot tumble freely in the dryer.
- Remove articles promptly when the dryer stops--again to avoid wrinkles. Hang or fold them immediately. Creases or wrinkles result if freshly dried articles, still warm from tumbling, are allowed to remain in the bottom of the dryer drum after the dryer stops. If the items can't be folded or hung promptly, start the dryer again and let the load tumble for a few minutes.
- . Check the lint filter regularly and remove all lint. A clean lint filter is important if the dryer is to operate at peak efficiency.

Once you learn to operate your clothes dryer properly, you will wonder how you got along without it, Mrs. Olson says. Fabric technology and the automatic dryer will eliminate most of the ironing.

SNOWMOBILE ACCIDENTS WARNED THIS YEAR

Many snowmobile accidents can be prevented this year if drivers know their machine, the sport, and use some common sense, according to University of Minnesota agricultural engineer John A. True and extension agents Dayton M. Larsen and Thomas A. Powell.

Drowning is the most common cause of snowmobiling deaths, they say. Springs, currents and heavy snow cover can produce unsafe ice on Minnesota lakes and streams even during prolonged periods of subzero temperatures.

Night riding can also be dangerous. Too many deaths, they say, are caused by hitting fences, wires, low hanging branches and cabled or chained road entrances.

Some tips on trail riding that can prevent accidents are:

- * If you plan a long trip into a remote or unknown area, never go alone.

 Use the buddy system and be sure to carry extra fuel, an extra drive belt, spark

 plugs, a can of gasoline de-icer, a tool kit, flashlight, matches, a first-aid

 kit and snowshoes.
- * When traveling or maneuvering with other machines, don't 'tailgate.''
 Many accidents are caused by ramming another machine or a fallen rider.
- * Unless you are positively sure that the ice on a lake or stream is safe-stay off.
- * Never ride alone at night. Be sure that head and tail lights work and travel in familiar areas and on established trails.

TWELVE RECEIVE UM FORESTRY SCHOLARSHIPS

Twelve University of Minnesota undergraduate students in the College of Forestry have been awarded scholarships for the 1970-71 academic year, it was announced recently.

The presentation of awards was announced by Frank Kaufert, acting dean of the College of Forestry, and Arnett Mace, chairman of the college's scholarship committee.

The scholarships and recipients are:

Carolind Scholarships -- William M. Bailey, Chatfield, and Mark Jenson, Barron, Wis., both juniors, and Leo Johnson, Annandale, sophomore.

Robert L. Goudy Scholarships--David Austin, International Falls, and Christopher R. Risbrudt, Dalton, Minn., both juniors.

Federated Garden Clubs Scholarship--Doyle L. Richards, Eau Claire, Wis., junior.

Chapman Foundation Scholarships -- Mike Appel, Aitkin; John A. Gronquist, Cloquet, and Allan R. Wood and Ralph R. Geiling, both of Minneapolis, all sophomores.

Everett Memorial Scholarships -- Donovan Boldt, Bemidji, junior and John M Cadotte, Ladysmith, Wis., sophomore.

GIVE PORTABLE APPLIANCES TENDER LOVING CARE

So you found a protable appliance under your Chirstmas tree!

Regardless of what the appliance is, if you expect it to give you good service, it's essential that you read the directions accompanying it and use it for the intended purpose only, cautions Mrs. Wanda Olson, extension specialist in household equipment at the University of Minnesota.

For example, if your gift was portable light-duty blender or light-duty mixer, remember that neither one will work well for heavy, stiff mixtures and batters. The sound of the motor will tell you when it is overworked.

Always use the appliance on the correct circuit. Many of the fast-heating appliances use 1,000 to 1,600 watts. Unless you have a special appliance circuit in the kitchen, it's wise to use only one heating appliance per circuit. The same rule applies when you use coffee pots and grills in other rooms in the house which have not been wired for such electrical equipment. Too little current will result in the appliance not reaching desired temperatures or motors having too little power. Too little current can also be hard on the appliances.

Always give your equipment the care suggested in the directions, Mrs. Olson gives these suggestions of what not to do:

- . Don't force gears or controls on working parts.
- . Don't overheat by long preheating of the appliance. Don't overwork the motor.

add 1--give portable

- . Don't handle thermostatic controls carelessly. Tender, loving care means you turn off the heat on an electric fry pan and remove the plug from the wall, leaving the probe in the pan for a few minutes. If you drop the control because it is hot, you can affect the calibration of the thermostat.
- . Never place the heat control in water or connect this control in immersible appliances which have just been washed and are still damp.
- . Never connect the plug to the outlet or leave the plug end in the outlet and then insert the control into the appliance. When the plug is connected to the outlet there is current in the controls; then as you insert the control into the appliance you could burn out terminals.
- . Don't yank the cord when disconnecting the appliance. Remove the cord with your hand on the plug.

Abuse of your appliances could mean costly repair bills, Mrs. Olson warns. Such bills many include the cost of replacement of parts as well as the standard hourly rate of \$11 to \$12 an hour.

Although electrical appliances are usually covered by a one-year warranty, if it is to be effective the appliance must not have been damaged by misuse. The warranty must also have been registered at the time of purchase and the repair or return of the appliance must be within the warranty period. You may need the sales slip to prove that the appliance is still covered by the warranty.

UNIVERSITY NUTRITIONIST TO RETIRE

A University of Minnesota extension nutritionist whose publications have helped hundreds of homemakers to prepare more appetizing and nutritious meals for their families will retire December 31.

She is Verna Mikesh, who has been employed by the University's Agricultural Extension Service for 30 years--half of that time as extension nutritionist.

Before her appointment as extension nutritionist she was a home agent in East Otter County and in Lac Qui Parle County. She began her career with the Extension Service as a 4-H Club agent in Big Stone and Lac Qui Parle counties.

In July, 1970 she was promoted to the rank of professor on the University staff.

Miss Mikesh is author of some 17 different extensiion publications, including "Let's Have Eggs," "Fresh Pork for Your Table," "Cured Pork for Your Table" and Bread Basics." Among the most popular of those she has co-authored are "Game Animals from Field to Kitchen," "Game Birds from Field to Kitchen" and "Fresh Water Fish, Care and Cooking," all of which have filled a need in a state where hunting and fishing are important activities. She is co-author of a chapter in the 1969 Yearbook of Agriculture on sugar and sweets.

add 1--university nutritionist

She has also helped to develop easy-to-read publications for use in the Expanded Food and Nutrition Program for families who have limited knowledge of nutrition and food management. Her development of Minne Cards for use by program assistants to bring nutrition information and recipes to families is an example of innovative techniques she has used in bringing nutrition information to various income levels.

As extension nutritionist Miss Mikesh has worked with county extension home economists, giving leadership and providing training in food and nutrition programs. Hundreds of Minnesotans have improved their diets as a result of her flair with food -- showing how delicious, imaginative foods can be the pathway to a good diet.

Active in professional organizations, she has been president of the Federation of Business and Professional Women in Madison, Perham and St. Paul as well as chairman of Business Women's Week activities. She has served as president of the Minnesota State Nutrition Council and as legislative chairman of the Minnesota Home Economics Association. She has also been president of Pi Chapter of Epsilon Sigma Phi, national honorary professional Extension Service fraternity.

Honors she has been awarded include being named recently to receive the Epsilon Sigma Phi Certificate of Recognition for conducting an effective program of nutrition information in Minnesota through meetings, the mass media and personal contacts. While she was a home agent in East Otter Tail County she was awarded the Certificate of Recognition by the National Home Demonstration Agents' Association for outstanding service as an education leader.

Miss Mikesh received her bachelor of science degree from the University of Minnesota and a master's degree from Oklahoma State University.

She was born and reared in Wilkin County, near Breckenridge.

To all counties

Immediate release

ALFALFA GROWN AT LOWER TEMPERATURES HAS HIGHER QUALITY

Alfalfa grown at low temperatures and low soil moisture has higher quality than that grown at higher temperatures and ample soil moisture, according to University of Minnesota research.

University agronomist G. C. Marten says the research was initiated because farmers and extension agents reported that hay cut at the same bloom stage appeared to vary in quality and wondered if climate was a factor.

Scientists compared alfalfa grown under laboratory conditions at two temperature ranges, from 50 to 60 degrees and from 70 to 80 degrees. At the lower temperatures, alfalfa yielded more at first-bloom stage and was more digestible, even though the percent of leaves and crude protein decreased.

Crude protein, a long-standing index of alfalfa forage quality, was a poor measure of overall nutritive value when the forage was produced under a variety of climates.

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To all counties

Immediate release

MONTHLY PUBLICATION TELLS FOUR STEPS IN ESTATE PLANNING

Take the first step in estate planning now by inventoring all your things of value. This includes items such as farm buildings, land, trucks, car, bank accounts and bonds, says Dale C. Dahl, University of Minnesota extension economist in legal affairs.

"You may be the only person who knows for sure the composition of your estate.

Upon your death, your personal representative will be required by the probate court to develop an inventory, but he will not be sure he has a complete inventory no matter how well he pieces things together," he adds.

If your attorney cannot provide you with estate planning inventory sheets, you can request a copy from Dahl at the Department of Agricultural and Applied Economics, University of Minnesota, St. Paul, 55101.

Other steps in estate planning include goal specification, plan development and re-evaluation.

Decide what income levels your surviving wife and minor children need. Consider what you want to provide and what you can provide—the difference may encourage you to develop a plan of estate creation.

Seek professional help if you decide that your present estate plan is inadequate. Professional estate planners include lawyers, accountants, insurance agents, social security representatives and bankers.

Re-evaluate your estate planning periodically, Dahl says. Estates change in size and composition and family situations and goals change.

For more information on estate planning see your county extension agent for a copy of 'Minnesota Agricultural Economist," November 1970.

To all counties

Immediate release

USE CAUTION
IF FEEDING
MOLDY CORN

If you're concerned about the safety of feeding corn with discolored kernels to livestock, try the feed on just a few animals first.

"Many farmers are concerned about discolored kernels due to the possibility of southern corn leaf blight," says Herbert G. Johnson, extension plant pathologist at the University of Minnesota.

"Results of feeding tests in many states have shown no problems in feeding corn infected with southern leaf blight to livestock. However, other fungi have produced poisonous mycotoxins under some conditions, but we don't have a simple and rapid test to detect these toxins."

The best safeguard is to try a new batch of feed on a few animals before the entire herd is exposed, the plant disease specialist says. If toxins are present, there should be some indication by the end of two weeks.

The percentage of discolored ears is a factor in the feeding risk. If less than 5 percent of the ears are discolored, the risk of toxin trouble is relatively small, according to Johnson.

Many samples have been sent to the extension plant pathologist for identificationand the sourthern leaf blight fungus has been found on some. Several other fungi are common on most samples whether the southern leaf blight fungus is present or not.

To all counties

Immediate release

IN BRIEF

Get Advice Before Pruning Hardwoods. Pruning hardwood stands is an involved problem, and you'd be well advised to seek professional advice from your local forester before you start. University of Minnesota forestry specialists say that hardwood stands usually have several species of varying ages. Some hardwood species are suited for high value products and are worth more than other species. Also, some species don't respond well to pruning.

* * * *

Date Extended for Farm Tax Returns. The due date for filing farm income tax returns has been extended from February 15 to March 1 for farmers who do not file declarations of estimated tax by January 15. However, farmers who file a declaration of estimated tax and pay quarterly installments are not affected. Neither are those who are not required to make installment payments. These individuals continue to file their Federal income tax returns by the normal April 15 due date.

* * * *

Crop Insurance Proceeds Postponed. Farmers may now postpone proceeds from crop insurance until the year following the loss for Federal income tax purposes. This is true even though the payment is received the year in which the crop was destroyed. However, farmers so affected must establish that income from the damaged or destroyed crops would have been reported in the year following the year of the loss under their usual practice. Under the old tax law, a farmer using the cash accounting method was required to report all income in the year in which it was received.

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To all counties

ATT: Extension Home Economists

Immediate Release

PORK, APPLESAUCE ON JANUARY LIST OF PLENTIFUL FOODS

Pork and applesauce are teaming up to give Minnesotans good eating for chill January days.

These two foods head the U. S. Department of Agriculture's list of plentiful foods for the first month of the new year. The USDA's list of plentifuls, published each month, tells consumers of the foods in largest supply—foods, therefore, which should be good buys. Consequently they are foods which consumers will want to keep in mind as they do their shopping, points out ______, ____County extension home economist.

A succulent pork roast or richly browned pork chops served with tangy applesauce make a meal fit for royalty, she says. With last fall's commercial pork production up from a year ago and January production expected to be heavy, shoppers should have no trouble finding the pork cuts they want. Grocers' shelves will be well stocked with applesauce to accompany the pork.

Large supplies of some fresh and some canned fruits will be welcome news after holiday feasting on sweets. A record production of early, midseason and navel oranges and temple oranges is being forecast. Hence fresh oranges, frozen orange juice concentrate and canned orange juice are expected to be reasonably priced in January.

Fresh grapefruit and canned grapefruit juice should also be in generous supply and selling at moderate prices. Grapefruit production is estimated at 23 percent more than last season.

There will be plenty of fresh apples for the fruit bowl and apple juice for refreshing drinks.

Dry peas, another January plentiful, offer a possibility for economical, satisfying meals. A bowl of steaming split pea soup is a welcome addition to a meal on a frosty winter day. Potatoes and onions complete the list of January plentifuls.

To all counties

ATT: Extension Home Economists

Immediate Release

DON'T OVEREXTEND YOUR CREDIT

Money is always short and there's constant worry about meeting bills: that may be a warning sign that you've been taking advantage of easy credit too often.

Other sure signs that you're overextending yourself: refinancing has become a practice and collection agencies are at your door trying to get you to pay past due bills.

If these are some of your problems, it's well to review the family spending plan and include all family members who are old enough to have a part in spending, says

Mrs. Edna Jordahl, extension home management specialist at the University of Minnesota.

But be sure the plan you make is realistic.

A general guide is not to use more than 20 percent of take-home pay for credit, Mrs. Jordahl says. A young frugal couple may manage very well with the 20 percent of income to pay for items they have charged. A growing family with many spenders, however, may wish to keep the percentage closer to 10 percent.

Mrs. Jordahl suggests these steps to take as the family reviews its spending plan:

- . Decide on family spending and saving goals.
- . Estimate the true spending income.
- . Review the family spending habits. Is one member raising havoc with the spending plan?
- . Estimate the monthly living expenses, other fixed expenses for the year and figure the cost for each month.
- . Figure the amounts committed from previous purchases and the balance remaining. This balance will indicate how "tight" money is in your family.

Because most families must rely on credit for emergencies from time to time, keeping a good credit rating is a good practice.

To all counties
4-H NEWS

For immediate release

NOW YOU CAN SEW THE EXOTIC FURS

Are you a girl who dreams of owning an exotic fur garment but practically faints when the price is mentioned? If you are, sewing fur-like fabrics may give you all the luxury you want at reasonable prices.

You can sew a unique garment from any of these exciting fur-like patterns:

leopard, ponyskin, tiger, kalgan lamb, cheetah, polar bear and fox. The fabrics come
in three categories according to their depth of pile--deep, medium and short pile.

Plan on choosing a pattern with few seams. Jumpers, vests, skirts, jackets and coats are good choices for fur-likes. A lightweight flexible fur-like is easier to work with than a stiff heavy fur, so use soft furs for more detailed designs. Avoid using patterns with buttonholes. Frogs or some of the other new decorative closings such as chain and button closings add personality to your garment. You can also make some very smart-looking accessories such as hats, bags and scarves from fur-likes.

When you purchase your fabric, use the yardages for fabrics with nap. If this information isn't given, add 3/8 to 3/4 of a yard to the regular amount. Also check the label to see if the fabric is washable, drycleanable or needs to be cleaned by a furrier.

When you cut your material, remember that the nap of the fur-like should always run downward. You will want to follow the layout for a napped fabric and place the tops of all pattern pieces pointing in the same direction. You can place the pattern pieces on the back side of the fabric and cut only a single thickness. You should cut only the backing, not the fur itself, using sharp scissors and taking short strokes. You can mark short or medium high piles with a tracing wheel and carbon paper, but mark deep piles with tailor's tacks or tailor's chalk.

add 1--Furs

Before you machine stitch the seams, you can hand-baste them to prevent creeping and puckering. Pull out any pile that is caught in the seam line after you finish basting. On deep piles, shear the pile in the seam allowance before stitching. Mark carefully 5/8 inch from the edge and cut pile away. When you machine stitch, use a medium to large sewing machine needle (14-16), heavy duty thread, and lengthen your stitch to about 10 per inch. Carefully adjust machine tension and pressure to fabric. Try to stitch in the direction of the pile whenever possible.

Satin, sturdy taffetas or cotton sateen are good choices as linings for vests, jackets or coats. If you are making a garment from a washable fur-like, make sure the lining is washable. Don't forget to understitch facings and linings either by machine or by hand, especially down the front of vests.

Be sure you know the fiber content before pressing. Many of the deep piles are modacrylic which requires the lowest temperature on your iron and no steam. Always experiment on a sample before pressing. When pressing seams open, press carefully in the direction of the pile to avoid matting the pile. Place fabric with pile side down on a needle board using a press cloth over the seam. Always press on the wrong side of the fabric.

Department of Information and Agricultural Journalism Institute of Agriculture University of Minnesota St. Paul 55101 Tel. 373-0710 December 30, 1970

GROWTH PREDICTED IN STATE'S AG ECONOMY

Income generated from farming and horticulture totaled \$4 billion in Minnesota during 1969, and there's tremendous growth potential, according to a University of Minnesota economist.

"Nearly 30 percent of the state's total employment--about 455,000 jobs--comes from the agribusiness economy," points out Dale Dahl of the University's Department of Agricultural and Applied Economics.

This is the total of farm employment plus farm related industries.

However, there are two persons employed in the food and fiber chain for each farm operator in Minnesota. And, one of every four persons employed in the major metropolitan areas of Minnesota are engaged in farm input and output industry activities.

"But if 1947 technology and adaptation were still in effect, the value of Minnesota's farm products would be \$500 million less than that recorded in 1969," Dahl says.

"This \$500 million represents the payoff of increased research and extension activities conducted by both private industry and the University.

Research work in Universities and federal laboratories across the United States contributes to our productivity just as Minnesota research results contribute to the productivity of farming in other states," he adds.

add 1--growth predicted

"If present trends in technological advances continue, Minnesota farmers will be producing \$500 million more in agricultural commodities by 1980 without using any more imputs than are being used today. This will mean an additional \$1.4 billion of income generated for businesses related to agriculture.

"At today's prices, income generated in farming and related businesses will reach the \$6.1 billion mark in 1980," the economist concludes.

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Immediate Release

HOSPITAL SERVICES AVAILABLE FOR MOST MINNESOTA PETS

Thousands of pets in Minnesota can now get hospital service comparable to the service that their owners receive.

Quality veterinary facilities are available in nearly all areas of the state, says University of Minnesota veterinary professor George W. Mather in the recent issue of Minnesota Science, published by the University's Agricultural Experiment Station.

"If a pet is struck by an automobile, he can recieve an emergency blood transfusion and be placed in an oxygen cage if it is required," Mather said.

And the same miracle drugs available to humans, such as broad spectrum antibiotics and modern cortisone derivatives are equally available to pet animals, he said.

Broken bones can be evaluated through the use of x-ray equipment. If the animal suffers a broken leg, it can be set using modern pinning techniques or even a "super-modern" compression bone plate, according to Mather.

Presently, some veterinarians are confining their practices to a single type of pet in an effort to give in-depth care.

"'Kitty clinics' are becoming commonplace in large cities," he said. "and many veterinarians treat only horses."

add 1--hospital services

Veterinary care for horses has immproved immeasurably, he said.

Highly effective drugs now adequately control the never-ending internal parasitic diseases of the horse and surgery for displaced intestines or caesarean section is now possible.

Specialized equipment for care of horses includes portable x-ray machines, horse ambulances and specially designed operating tables.

Further improvements of veterinary care can be expected in the 1970's, Mather explains.

The trend of group practice in small animal care is well underway and can be expected to increase through the 1970's. Many small animal hospitals presently have three and even four staff veterinarians. Each one specializes in certain classes of petailments, just as doctors specialize in human ailments.

"One veterinarian might handle most or all cases involving an animal's eyes, the second general surgery, the third orthopedic surgery, and the fourth might have a special interest in the operation of the x-ray equipment, he said.

In the somewhat distant future, central animal hospitals that operate much the same as hospitals for humans may be established. A single hospital might serve the needs of perhaps 10 or 12 veterinarians who would still maintain their practice in clincies apart from the central hospital, the veterinarian contends.

In the central animal hospital, lay staff supervised by a veterianarian will care for the animals under the direction of the veterinarian responsible for the pet, Mather said. Complex operations may be performed by a specialist.