

Department of Information  
and Agricultural Journalism  
Agricultural Extension Service  
University of Minnesota  
St. Paul, Minnesota 55108  
Tel. (612) 373-0710  
January 5, 1976

4-H NEWS

Immediate release

3027P

NATIONAL, STATE  
4-H BANK CAMPAIGN  
CHAIRMEN NAMED

The 1975 Nationwide 4-H Bank Campaign is underway and bankers are being asked to meet the goal of \$120,000 by campaign chairman Tom R. Smith of Marshalltown, Iowa.

Minnesota Chairman of the Nationwide 4-H Bank Campaign, Thomas E. Olson, Starbuck, says a goal of \$6,500 is being set in the Gopher State for support of the National 4-H Foundation. Any contribution over that amount will be retained in Minnesota for specific development projects.

Minnesota bankers have led all state groups in their support of the National 4-H Foundation in recent years, according to Leonard Harkness, state 4-H director.

In the 1974 campaign, 1,913 banks in 29 participating states contributed more than \$97,000 to support local 4-H activity and citizenship training conducted at the National 4-H Center in Washington, D.C.

In announcing this year's national goal, Smith said: "This is a responsibility that bankers can realistically meet. The young people we support today are the leaders of tomorrow. In fact, many return home from the National 4-H Center as today's leaders in their own communities...starting projects that benefit entire neighborhoods and groups of people."

-daz-

CA, Youth

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IN BRIEF. . . .

Pork Conference. The annual Minnesota Pork Conference is scheduled Jan. 23 at the Orchid Inn in Sleepy Eye. Registration begins at 9:30 a.m. William F. Hueg Jr. will speak on "American Agriculture--A Household Word" at 11 a.m. Hueg is deputy vice president and dean of the University of Minnesota's Institute of Agriculture, Forestry and Home Economics.

Other University of Minnesota specialists will be on the program, which concludes with a recognition banquet beginning at 6 p.m. Swine Honor Roll winners and Top Pen Performance winners will be honored at the banquet.

\* \* \* \*

Growing Amaryllis. A beautiful flower in the house or garden is the amaryllis. Plant the bulb in a pot with an inside diameter about an inch larger than the diameter of the bulb. There should be a half-inch space between the bulb and the inner surface of the pot. Roots must be crowded if the plant is to bloom. Use rich soil and be sure to place some small stones or clay potshards in the bottom of the pot to improve drainage.

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add 1--in brief

Control Fire. Call the fire department first if a chimney fire should occur. One of the dangers of a chimney fire is that it can ignite interior walls of the house if there are cracks in the flue lining and brick exterior. Also, sparks from a chimney fire can ignite wood shingled roofs, setting leaves on fire that have collected in gutters and roof valleys. The fire may spread to eaves and exposed asphalt shingles.

\* \* \* \*

Burning Out. In most instances, the chimney fire may have to be allowed to burn itself out. If this is done, the fire should be kept under continuous observation.

The outside should be watched to control any fire that may start from sparks. The clean-out door at the bottom of the chimney should be closed. Walls adjacent to the chimney should be watched for discoloration and felt to determine if fire may have reached the structure.

\* \* \* \*

Using Salt. Table salt--a half to one pound--can be thrown on fireplace logs or into the stove to shorten the burnout time in a chimney fire.

Using water to extinguish a chimney fire may result in cracking the extremely hot refractory flue lining. Also, sooty water may run down the chimney and seep into interior walls.

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ATT: Extension Home Economists

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OUTBREAKS OF  
LICE ON HUMANS  
BECOMING COMMON

Outbreaks of lice on humans--once associated with periods of social upheaval and wars--are becoming common in some Minnesota communities says David Noetzel, extension entomologist at the University of Minnesota.

Head, body and crab lice spread through person-to-person contact even under relatively good sanitation standards, Noetzel says. The important step in curbing the spread of lice is to practice control measures as soon as the condition is discovered.

Head lice usually become evident when the eggs or "nits" show up in the hair, usually behind the ears and at the nape of the neck. Because normal flaking skin or hair spray residue can be mistaken for nits, Noetzel suggests diagnosis should be made by a physician, public health worker or entomologist.

Body lice can carry epidemic typhus when spread through the exchange of clothing or occasionally, towels and bedding. Crab lice attach themselves to coarse body hair and most often are found in the pubic area where they have spread through sexual contact. Pustules form from the bites and severe skin reactions can develop, Noetzel says.

High cleanliness standards reduce the chances of getting lice. This includes regular washing of self, clothes and bedding. Exchanging clothing, sharing combs and using towels in common encourages the spread of lice. Noetzel says that close social contacts of persons infested with lice should be informed of the possibility they might have picked up lice. School nurses or teachers should be told of any incidence in school age children.

Nonprescription or prescription insecticides can be used for louse control. When used as directed they will kill both eggs and lice. Clothing and bedding should be washed in water at least 125 degrees F. for 10 minutes. Modern clothes dryers exceed this temperature and work well to kill lice and eggs on clothing and linens.

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ATT: Extension Home Economists

ELECTRICITY IS A SERVANT,  
BUT TREAT IT WITH RESPECT

Electricity is one of our most helpful household servants--reliable and safe. But if it's treated with disrespect or neglected, two types of hazards can result says Harold Cloud, extension agricultural engineer at the University of Minnesota.

Electric shocks often occur when a faulty piece of electrical equipment is touched by a person who is electrically grounded. Basements, bathrooms, garages and outside are the most common places for such accidents, so all outlets to these areas should be grounded.

Cloud suggests immediately disconnecting and correcting the problem if you notice a "tickle" when touching a piece of equipment or if you think it's faulty. Never try to repair electrical equipment when it is plugged in. Disconnect the power when changing fuses and light bulbs.

Electrically-caused fires are a second major hazard. These can result from overloaded wiring and improperly protected equipment. Blown fuses are a danger signal that circuits are overloaded or equipment is defective. Cloud says never to replace blown fuses with ones of larger ampere rating.

He also advises against using extension cords to add outlets or allowing cords to become kinked, squeezed or damaged. Large electrical equipment such as dryers, washers and television sets shouldn't be operated unattended.

Most important, Cloud says, is to disconnect immediately and check out equipment if you detect smoke or odors coming from household appliances.

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HIGH PROTEIN  
OATS FOR  
YOUNG PIGS

Large quantities of supplemental protein can be eliminated from the diets of early-weaned pigs if high protein oat groats is used as feed, University of Minnesota animal scientists say.

Researchers Gonsalo Castro, H.E. Hanke and R.J. Meade studied pigs fed Dal, Diana and Otee oats as major dietary components and examined average daily gain and feed/gain ration.

They found that while there were some benefits when the oats varieties were supplemented with more protein, the benefits were either relatively small or diminished as greater amounts of supplemental protein were added.

"It appears that oat groats from varieties of high protein oats such as Dal and Diana can be used as major dietary components of diets fed to pigs weaned at about four weeks of age," the scientists concluded.

Details on the findings are reported in the 1976 Swine Days Reports available from the Department of Animal Science, Peters Hall, University of Minnesota, St. Paul, MN 55108.

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25th ANNUAL  
LUMBERMEN'S  
SHORT COURSE

The 25th annual two-week Lumbermen's Short Course starts Feb. 2 at the University of Minnesota, St. Paul, for lumber dealers, their employees and others interested in the building materials supply industry.

The course is conducted by the College of Forestry through the Office of Special Programs at the University of Minnesota in cooperation with the Twin Cities HOO-HOO Club No. 12 and the Northwest Lumbermen's Association.

Registration is limited to 90 persons. Registration forms and other material on the short course are available from the Office of Special Programs, 405 Coffey Hall, University of Minnesota, St. Paul 55108.

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#### HELPS FOR COUNTY EXTENSION HOME ECONOMISTS

\*\*\*\*\*  
\* These fillers are intended for use in your newspaper \*  
\* columns or for your radio programs. Adapt them to \*  
\* fit your needs. \*  
\*\*\*\*\*

#### In this issue:

Are You a Fraud Candidate?  
Ads and the Dollars We Spend  
Know Your Warranties  
Evaluating Outstretched Hands  
Only Skin Deep  
Savings Games  
Shoplifting Costs You

Ground Beef Wins Again  
The Produce Scene  
Pork vs. Beef  
Fishy Facts  
Fireplace and Stove Precautions  
Choosing and Burning Wood  
Storing Wood

#### CONSUMERISM

#### Are You a Fraud Candidate?

Most consumers encounter fraud at some time, but Edna Jordahl, extension home management specialist at the University of Minnesota, says the groups most often defrauded include:

1. Young newlyweds
2. The poor and debt-ridden
3. The elderly
4. The lonely, gullible and impulsive
5. The ill and pain-ridden
6. The greedy

When a consumer finds he or she has been defrauded, Mrs. Jordahl recommends gathering the facts, acting quickly and protesting first to the seller. If this fails, protest to local and state authorities. Contact your county attorney, attorney general, chamber of commerce or Better Business Bureau. Contact the advertiser, newspaper editor, magazine staff or broadcast station where the misinformation originated.

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Issued in furtherance of cooperative extension work in agriculture and home economics, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Roland H. Abraham, Director of Agricultural Extension Service, University of Minnesota, St. Paul, Minnesota 55108. We offer our programs and facilities to all people without regard to race, creed, sex, or national origin.

add 1--helps for county extension home economists

### Ads and the Dollars We Spend

Advertising is big business in the U.S. It costs each family about \$240 a year or about \$70 per person. Edna Jordahl, extension home management specialist at the University of Minnesota, says consumers use advertising when shopping for less familiar items or those purchased infrequently and when spending large sums.

Advertising appeals to a variety of consumer concerns and needs--concern about physical needs, desire for social approval, need for security, desire to be attractive and desire to stay young. Mrs. Jordahl recommends examining and evaluating advertisements with these questions in mind--what is the appeal? What meaningful information is given? What is not told?

\* \* \* \*

### Know Your Warranties

New laws require written warranties to mean what they say, according to Edna Jordahl, extension home management specialist. Warranties and guarantees are synonymous. Either is a written or implied assurance of a product's wholesomeness and a promise to supply missing parts or replace unsatisfactory ones.

Express warranties make specific statements or claims about the quality or performance of goods. Implied warranties make the seller or manufacturer legally responsible for products and services. The seller implies that the title is transferrable, that the item has a marketable value and that it is fit for the intended use.

\* \* \* \*

### Evaluating Outstretched Hands

Are you overwhelmed by solicitations from charities? It's often difficult to tell good charities from bad so the Council of Better Business Bureaus has set standards against which it evaluates charities.

Although charities can't be required to meet these standards, the charity reports tell the potential donor which do and which do not. To obtain a copy of their findings, write to Council of Better Business Bureaus, 1150 Seventeenth St. N.W., Washington, D.C. 20036.

\* \* \* \*

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add 2--helps for county extension home economists

### Only Skin Deep

Cosmetics and aerosols are covered by new labeling requirements issued by the Food and Drug Administration. The requirements include ingredient listings on cosmetics; warnings on food, drug and cosmetics items in aerosol cans; caution statements on feminine deodorant sprays; and warnings on all cosmetics containing ingredients that haven't been tested for safety prior to marketing.

Manufacturers have until March to meet the new requirements on their labels.

\* \* \* \*

### Savings Games

If you made a New Year's resolution to save a portion of each paycheck, these savings "games" may help. You're in good company if saving is difficult. About one-third of U.S. Families have no savings account.

**Branded Money Game**--Empty pocket change into a cookie jar and several times a year, fill wrappers with the coins. Deposit in your savings account.

**Windfall Game**--Whenever you receive unexpected money--inheritance, winnings, a raise--put it into savings. When you finish installment payments on a major purchase, continue to make the monthly payments but pay them to your bank account.

**Self-Service Game**--Choose a chore you're paying someone to do but could do yourself. Do it yourself and put the savings into your account.

**Crash-Save Game**--Set a time limit and for that period buy only necessities. Save the rest. At the end of the specified time, treat yourself to a celebration with a dollar limit. Then resume your usual routine.

\* \* \* \*

### Shoplifting Costs You

Shoplifting, employee thievery and other crimes against businesses cost consumers \$20 billion a year. These losses plus the expense for combatting theft now average \$90 a year for every person in the country.

Of crimes against business, 25 percent are committed by shoppers, the rest by employees. Sporting goods, clothing, jewelry, cosmetics and phonograph records are the items most likely to disappear from department stores. Drug stores lose jewelry, cosmetics, candy, drugs, toys and records. Meat and cigarettes are grocery stores' largest losses.

\* \* \* \*

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## FOOD

### Ground Beef Wins Again

Ground beef still is a meat bargain according to statistics compiled by the U.S. Department of Agriculture. Three ounces of cooked lean ground beef (an average serving) cost about 24 cents when ground beef is selling for 90 cents a pound at the grocery store. Beef liver at 91 cents a pound retail costs about the same as ground beef for a three ounce serving.

Frozen ocean perch fillets that cost more than \$1 a pound have little waste. A three ounce serving will cost about 10 cents more than the same sized serving of ground beef. Porterhouse steak, however, requires nearly a half pound of uncooked meat to yield three ounces of cooked lean and the per-serving price soars to more than \$1.

\* \* \* \*

### The Produce Scene

Do the fresh produce counters of your supermarket seem uninteresting this time of year? The United Fresh Fruit and Vegetable Association reports that oranges, grapefruit, broccoli and Brussels sprouts are about the only fruits and vegetables that are more plentiful this time of year than during the summer months.

Lettuce, onions, potatoes, bananas, cabbage and carrots are among the produce items that are plentiful all year. Supplies of a few fresh favorites such as berries, melons and peaches are almost nonexistent except during the summer and early fall.

\* \* \* \*

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add 4--helps for county extension home economists

### Pork vs. Beef

Late in 1975, retail pork prices were higher than choice grade beef prices for the first time in many years, according to Kenneth Egertson, extension marketing economist at the University of Minnesota. This was largely the result of reduced supplies of pork per U.S. consumer--from a high of nearly 75 pounds of pork per person annually in the early 1970's to about 55 pounds last year. Beef and veal accounted for nearly 125 pounds per person in 1975.

Egertson predicts that both beef and pork prices will fall by the second half of this year and that beef once again will be more costly than pork.

\* \* \* \*

### Fishy Facts

When buying fresh fish, look for pinkish-red gills, full clear eyes, light-colored fat and firm flesh advises Robert Rubin, fishery marketing specialist with the Minnesota Department of Commerce. Frozen fish should be in well-shaped packages that show no signs of rough handling or refreezing. Select only packages from below the freeze line in open freezing compartments.

The best way to thaw fish is overnight in the refrigerator, but it can be thawed quickly under cold running water. Fish is done cooking when it is tender and flakes easily when tested with a fork. Overcooking makes fish dry and rubbery.

\* \* \* \*

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SAFETY

Fireplace and Stove Precautions

January is fireplace season, and extension conservationist Clifton Halsey recommends inspecting your fireplace and chimney for safe operation. Be sure the chimney is clean; the damper works properly; the chimney, fireplace and hearth have sound mortar; and the screen fits tightly to prevent sparks from popping out.

If you have a wood stove for standby heat in case of power outage or fuel shortage, some safety precautions also are called for. Inspect used stoves for cracks and defects such as faulty legs, damaged hinges or improper draft louvres. You will need grates if you choose to burn coal rather than wood in either a fireplace or stove.

\* \* \* \*

Choosing and Burning Wood

It is more efficient and safer to burn moderate amounts of dry wood in a hot fire than to use green or wet wood that smolders in your fireplace or stove, says extension conservationist Clifton Halsey.

If a moderate-sized hot fire is maintained, any creosote or volatile gases that enter the chimney are likely to be exhausted from the chimney as vapors. A cooler, smoldering fire may accumulate soot in the chimney and create a fire hazard. Resulting chimney fires can damage mortar joints and ignite nearby combustible materials. Halsey warns never to use flammable liquids to start or rekindle a wood or coal fire.

\* \* \* \*

Storing Wood

Dried split wood burns cleaner and more evenly than wet or green wood or round sticks. Although wood can be dried sufficiently for fairly satisfactory burning within a few weeks, it is better to cut wood one year for use the following year. When less time is available, store the wood in a dry location for as long as possible before using.

Clifton Halsey, extension conservationist, suggests stacking wood so that both ends of the sticks are exposed to air since even in split wood more drying occurs through cut ends than through the sides.

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JANUARY SAFETY:  
HOME WORK FALLS

Falls are the most common type of home accident and nearly all of them happen to persons 45 years and older. More than half of the home falls are by persons 75 and over, says Wanda Olson, extension specialist in household equipment at the University of Minnesota.

Check your home for safety. Is the lighting good? Can you turn on and off lights without walking through rooms, hallways and stairways? Is the hallway or stairway as well lighted as the room a person came from? This is particularly important for older persons whose eyes take longer to adapt to the dark.

Are there handrails where needed on stairways and entrance steps and in bathrooms near tubs and showers? Are walkways free of rubbers, toys and other objects and are smooth floors free of water and grease? Make sure carpeting is free of rip strings and that scatter rugs do not trip up elderly persons.

Avoid wearing slippers that catch on steps and do not carry such large loads that you cannot see the stairs or handrail.

Are most frequently used items stored within easy reach and do you have a handy, sturdy stool for cleaning and reaching high storage areas? Can you walk through a room without making several turns around furniture? Do you keep rooms tidy--not only for appearance but also to avoid accidents.

-daz-

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LIMIT FIELD  
WINDBREAKS TO  
ONE TREE ROW

If it stops the wind entirely, your field windbreak isn't a good one, a University of Minnesota forestry expert says.

"The term windbreak may not be correct," says Harold Scholten of the Department of Forest Resources. "Maybe we should call them filterbelts."

A windbreak's primary purpose is prevention of soil erosion and, secondarily, keeping snow from blowing off the land and into roadside ditches.

But, Scholten says, these aims should not lead farmers to plant dense windbreaks which stop all drifting snow. Such density can cause snow to pile up on both sides of the windbreak, an undesirable situation which can cause delay in drying of cropland near the windbreak, leaching of nutrients in soil around large drifts and uneven distribution of soil moisture over cropland.

Consequently, windbreaks should be limited to one row of trees, preferably green ash. According to Scholten, shrub species stop too much snow, and even the commonly-used Siberian elm is undesirable because of its dense branching.

Existing Siberian elm windbreaks should be pruned 3-4 feet from the ground as trees begin to crowd, he says.

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TEST STATION HOGS  
SHOW IMPROVEMENT

Hogs entered at Minnesota's central test station have shown rapid improvement since 1959, when the test station began operations.

During the 1959-75 period, feed efficiency improved 41 pounds of feed per 100 pounds of gain, backfat was reduced .40 inches, loin eye area increased .97 square inches and percent ham and loin of live weight increased 7.1 percent. Faster growing pigs were more efficient, and produced longer, leaner carcass, according to Charles Christians, extension livestock specialist at the University of Minnesota.

The Minnesota Pork Producers' Association Central Test Station is located at New Ulm.

For information on how you can benefit from the central test station, see your county extension agent. Or, write to Charles Christians, Peters Hall, University of Minnesota, St. Paul 55108.

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WOOD STOVE, FIREPLACE  
SAFETY BOOKLET AVAILABLE

With power outages and fuel shortages a possibility this winter, some families are considering wood stoves and fireplaces as standby heating, says Clifton Halsey, University of Minnesota extension conservationist.

The University of Minnesota's Agricultural Extension Service, recognizing the renewed interest in wood stoves and fireplaces, has published "Using Wood Stoves and Fireplaces Safely," Extension Folder 323.

Many homes already have fireplaces, but most are only about one-third as efficient as a good stove in producing usable heat, says Halsey. Some fireplaces are merely for "show" as part of the decor and may not have a usable chimney, while many old chimneys have been plugged. Many chimneys are too thin, have no flue linings or are too close to combustible material in walls and ceilings.

Used stoves should be checked for cracks or defects such as faulty legs, hinges or draft louvres. Halsey advises homeowners to repair small cracks with stove cement; large cracks should be welded by an expert. New stoves should be of sturdy materials such as cast iron and preferably purchased from a reliable dealer who employs stove experts.

More information is available in Extension Folder 323. Single copies are available free from your local county extension office or from the Bulletin Room, University of Minnesota, St. Paul, Minn. 55108.

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IN BRIEF. . . .

Prevent Accidents. Wear shoes or boots with slip-resistant soles and heels to avoid farm work falls, says Robert A. Aherin, extension safety program leader at the University of Minnesota. Scrape shoes clean of mud, snow and manure before climbing on farm equipment.

Keep platform and foot plates or steps cleared of mud, debris, tools and chains. Be extra cautious when climbing off and on equipment and even more deliberate when steps are wet or ice covered.

\* \* \* \*

No Riders. Establish a "no riders" rule, except when training a new operator, for tractors and self-propelled equipment. No passengers should be on any equipment other than those required for its operation.

\* \* \* \*

Housekeeping. Adopt good housekeeping practices--do not leave tools and materials in walking paths. Provide enough light in work areas, storage rooms, passageways and yards so that you can easily see where you are going and what you are doing.

Erect guarding around unprotected floor openings to prevent falls.

\* \* \* \*

Around the Farm. Do not excite, startle, tease or abuse animals. Most animal accidents occur while rounding up or loading animals.

Treat icy work surfaces with de-icers or sand. Keep walking surfaces in grain storage and feeding areas swept since loose grain can cause a fall. Use only ladders that are free of cracks or loose rungs. Use a ladder that is long enough so that you can stay off the top two rungs. Climb with both hands and do not try to reach too far.

\* \* \* \*

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add 1--in brief

Heavy Loads. When carrying heavy, bulky and long objects, check your path of travel beforehand. Watch for slipping or tripping hazards, which should be picked up or avoided.

A recent Minnesota survey shows that falls were responsible for a third of the work injuries reported on farms. The falls occurred most frequently in the farmstead yard area while working with farm machinery, loading and unloading materials, on ladders, in and around buildings and while tending farm animals.

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CHECKLIST OF RECORDS  
MAY SAVE CONFUSION  
WHEN FAMILY MEMBER DIES

Younger married couples often fail to inform each other of the status of life insurance, investments, mortgages and other business matters that would be important should one of the partners die.

University of Minnesota extension specialists advise couples to list and revise periodically this type of information. Both husband and wife should have a copy of the list or know where it is located. The checklist should include:

- \* A record of insurance and where the policies are located. Include policy numbers, face value, special provisions, names of beneficiaries and whether it has been borrowed against.
  - \* Statement of whether a will exists and its location.
  - \* Name, address and telephone number of the family lawyer.
  - \* Cemetery lot location, if there is one, and the place where ownership documents are stored.
  - \* Social security numbers for both husband and wife
  - \* Descriptions of retirement plans and the location of documents detailing them.
  - \* Location of military discharge papers and military serial numbers.
  - \* Record of stocks and bonds, their location and value when acquired.
  - \* Location of marriage and birth certificates.
  - \* Location of automobile titles, payment information, company.
  - \* For homeowners, property title, name of mortgage holder and payment information.
- Note any insurance policy that will pay the mortgage in the case of death.
- \* Location and numbers of checking and savings accounts.
  - \* Record of outstanding debts.
  - \* Preferences for funeral arrangements.

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4-H NEWS

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4-H COMMODITY MARKETING  
SYMPOSIUM FEB. 29-MAR. 3

America's role in feeding a hungry world will get attention at the 25th National 4-H Commodity Marketing Symposium Feb. 29 through March 3 in Chicago.

The symposium is sponsored annually by the Chicago Board of Trade, donor of awards in the national 4-H commodity marketing program.

Top 4-H'ers from as many as 39 states are eligible for expense-paid trips to Chicago to attend the symposium. They will have an opportunity to see firsthand the action on the trading floor of CBT, the nation's oldest and largest commodity exchange. Also on the agenda will be visits to processing plants and marketing facilities, plus question-and-answer sessions with marketing and trading specialists.

Symposium participants are selected on the basis of their records of accomplishment in 4-H by the Cooperative Extension Service, which conducts the commodity marketing program.

In addition to expense-paid trips to Chicago for the winners and partial reimbursement for their chaperons, the Board of Trade offers medals of honor to as many as four 4-H members in each county conducting commodity production and marketing activities. All awards are arranged and announced by the National 4-H Service Committee.

Nearly 85,000 4-H members from 9 to 19 participate in learn-by-doing activities designed to give them an inside view of the marketplace. 4-H'ers explore basic marketing concepts as they apply to commodities sold in cash markets and traded in futures markets of major commodity exchanges. More information is available from the \_\_\_\_\_ County Extension Office on the commodity marketing program.

-daz-

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KITCHEN IS COMMON SPOT  
FOR HOUSEHOLD FIRES

The family kitchen is a hectic--and often dangerous--place during the dinner hour says Wanda Olson, extension household equipment specialist. Some 65 percent of household fires occur in that room, peaking sharply between five and six p.m.

Statistics from the National Fire Prevention and Control Administration show that slightly less than half of household fires involve cooking. Adults in the 21 to 45 year age group are the most commonly injured in kitchen fires.

Mrs. Olson suggests that knowledge about how to put out grease fires could save injuries. "Never add water to a grease fire," she says. "Cover the fire quickly with a pan cover, baking soda or salt."

Most fire-related deaths are caused by deadly smoke and gases even before property damage becomes severe. Fires in the home kill more than 6,000 persons yearly and disable another 250,000. Unlike kitchen fires, fires in other rooms are most likely to kill or injure those 65 and over or young children under four.

Nighttime fires are the most serious because the family is asleep and the discovery of fire is usually delayed. Dangerous gases can reach the bedroom and cause death before the flames travel that far.

The International Association of Fire Chiefs recommends sleeping with bedroom doors closed and instructing family members on escape routes. If a bedroom door or knob is warm, the door should be kept closed and an alternate escape route used.

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CA

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University of Minnesota  
St. Paul, Minnesota 55108  
Tel. (612) 373-0710  
January 19, 1976

4-H NEWS

Immediate release

YOU'RE THE BOSS  
4-H PROJECT  
LEADER SESSION

A new 4-H project, You're the Boss-Self Management, is being introduced to Minnesota 4-H clubs for nine through 12 year olds.

A training session for adult 4-H leaders who will be involved in the project will be held at \_\_\_\_\_ on \_\_\_\_\_ at \_\_\_\_\_ in \_\_\_\_\_.  
(time) (date) (place) (town)

The project deals with management skills, including values, goals, decision making, organization, resources and standards. Other areas include basic day-to-day living skills and development of self esteem and a positive self concept in the young participants.

You're the Boss is divided into seven units with teacher manuals, parent manuals and "fun sheets" with games and puzzles for the participants.

For more information, contact \_\_\_\_\_ at the \_\_\_\_\_ County Extension Office.

-daz-

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Dates and Times:

- Feb. 3 and 4 Four Seasons Motel and Restaurant, Wadena
- Feb. 5 and 6 Donovan's, Redwood Falls
- Feb. 24 and 25 St. Olaf Center, St. Olaf College, Northfield

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January 19, 1976

Immediate release

TAX CREDIT  
FOR EQUIPMENT  
ON FEEDLOTS

A 10-percent credit can be taken by Minnesota farmers on the state income tax return for feedlot pollution control equipment and facilities installed in 1975, says Philip Goodrich, University of Minnesota agricultural engineer.

For example, an operator may deduct 10 percent of the cost of a liquid manure spreader or a number of other pollution control devices from his Minnesota taxes. This tax credit is available only in the year that the equipment or structures were installed, so the operator should make sure he claims his credit this year. State income tax credits for pollution control equipment installed in 1975 are claimed on Minnesota income tax form Schedule PC. These forms are available at tax offices. Operators can use information from their Minnesota Pollution Control Agency Feedlot Permit to fill out their returns. Where an operator does not yet have his permit, he should contact the Pollution Control Agency, 1935 W. County Road B2, Roseville 55113, for a permit application.

For more information, get Agricultural Engineering Fact Sheet 20, "Tax Benefits For Feedlot Pollution Control," from the \_\_\_\_\_ County Extension Office or the Bulletin Room, University of Minnesota, St. Paul 55108.

-daz-

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January 19, 1976

Immediate release

DAIRY EXPANSION  
PROGRAM SET  
FOR FEB. 11-13

There's still time to register for the dairy expansion workshop scheduled for Feb. 11-13 in St. Paul.

The workshop emphasizes individual consultation with University specialists and is aimed at dairymen who are contemplating a major expansion of the farm business. The workshop aims to evaluate the feasibility and profit potential of dairy expansion plans. Individual management topics will include cropping and harvesting, feeding, housing, milking, breeding, herd replacements, labor and financing.

Fee for the course is \$65 per farm operator with an additional \$35 for each additional farm participant.

For more information, contact the Office of Special Programs, University of Minnesota, St. Paul 55108. Phone (612) 373-0725.

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January 19, 1976

Immediate release

TOP SWINE PEN  
AWARDS ANNOUNCED  
FOR MINNESOTA

The 1975 top swine performance pen awards have been announced by Charles Christians, extension livestock specialist at the University of Minnesota.

Only breeds with 10 or more breeders entering pigs at the Swine Evaluation Station at New Ulm are eligible to compete for the awards.

The top pen awards went to Robert Owen, Durand, Wis., Duroc; Keith Thurston, Madelia, Hampshire; Melzer's Spots, Hanska, Spotted; James Olslund, Beltrami, Yorkshire; and Robert Sammelson, Red Wing, in the crossbred competition.

More information on the winning pen entries and on the Swine Evaluation Station is available from Charles Christians, 101 Peters Hall, University of Minnesota, St. Paul 55108.

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January 19, 1976

Immediate release

FOOD QUALITY  
ASSURANCE  
WORKSHOP SET

A one-day training program for food service executives on food sanitation will be held \_\_\_\_\_ in \_\_\_\_\_.  
(date) (place) (town)

The Quality Assurance Workshop on food service sanitation is being sponsored by the University of Minnesota's Department of Food Science and Nutrition and the Agricultural Extension Service, the State Health Department and the Minnesota Hotel, Resort and Restaurant Association. Registration is through the Office of Special Programs, 405 Coffey Hall, University of Minnesota, St. Paul 55108.

The program starts at 8 a.m. Some of the topics include managerial responsibilities in food sanitation quality assurance, basic facts on microorganisms important in food sanitation and foodborne illness hazards.

Food service executives who successfully complete this course will be able to analyze their facilities, menus and procedures or illness hazard. They must return to their establishments and institute quality assurance programs for the prevention of foodborne illness transmission in their food services. They receive certificates of completion when they pass final examinations and their program has received a satisfactory grade from the instructor.

-daz-

CA+attached list

add 1--food quality assurance workshop

<u>Dates</u>	<u>Places</u>
Feb. 18	Courthouse, Moorhead
Feb. 28	Veterans Home, Auditorium, Minnehaha Ave. and 51st St., Minneapolis, MN
March 2	Area Vo-Tech Institute, North Mankato
Feb. 21	St. Cloud State University
Feb. 24	St. Louis Park City Hall
Feb. 24	Old Main, Room 213, UMD
Feb. 26	Veterans Home, Minneapolis
Feb. 24	Holiday Inn South, Rochester
Feb. 28	Southwest State University, Marshall
Feb. 28	Richfield Library, 7000 Nicollet
Feb. 28	Town & Country Cafe, Worthington
Feb. 26	University of Minnesota, St. Paul (Coffey Hall)
Feb. 28	Edina City Hall

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Immediate release

IN BRIEF. . . .

Vegetable Garden. University of Minnesota Extension Horticulturist O. C.

Turnquist offers tips on planning your vegetable garden:

Your garden should be near the house if possible. Many farm and country gardens are in one unit, but often it is more convenient to have a small kitchen garden near the house and a larger one in the fields for crops to be stored or preserved. Avoid planting in fields where sweet corn had been sprayed the previous season with atrazine, since carryover from the chemical can injure this season's vegetables.

\* \* \* \*

The Right Spot. Select a spot for your vegetable garden where the land is fairly level with no soil pockets. In windy regions, gardens should be protected by shelterbelts and buildings, but should not be shaded. Trees not only shut out sunlight, but rob the soil of water and minerals that the vegetables need.

\* \* \* \*

Garden Plan. Planning is essential to make the best possible use of your garden area. Put your plan on paper, drawing it to an appropriate scale. Plan your garden to allow ample room for each vegetable to develop properly.

Group crops according to the time they mature to facilitate succession plantings, rotation or planting of green manure crops after harvest of the early crop.

\* \* \* \*

Buying Seeds. Order your vegetable seed early from reliable seed companies. New varieties disappear from the seed store shelves early in the spring.

Generally it is wiser to buy fresh seeds each year than to try to save seed from your garden.

\* \* \* \*

-more-

add 1--in brief

Choosing Varieties. Consider your family's likes and dislikes in choosing varieties of vegetables for your garden, says Extension Horticulturist O. C. Turnquist at the University of Minnesota.

Plan to grow crops that will give the highest nutritive returns. Select adapted varieties best suited for your particular use. Disease-resistant varieties usually make your gardening task easier and should be selected whenever possible.

\* \* \* \*

Herbicide Mixes. Some herbicide mixtures and multiple treatments are economically practical where weed problems warrant their use, according to University of Minnesota Extension Agronomist Gerald Miller. They should help prevent build-up of resistant weeds, such as has occurred in past years when we relied too much on single herbicides. More information is available in Extension Folder 212, "Cultural and Chemical Weed control in Field Crops, 1976," available from the \_\_\_\_\_ County Extension Office or the Bulletin Room, University of Minnesota, St. Paul 55108.

\* \* \* \*

Corn Crop. Production of corn for grain in the U.S. last year is now estimated at 5.767 billion bushels. This is 24 percent above 1974 figures, according to the U. S. Department of Agriculture. The 1975 crop is two percent higher than the previous high set in 1973.

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January 26, 1976

ATT: Extension Home Economists

Immediate release

**LABELS HAVE  
NUTRITIONAL INFO**

It's easier now to know what nutrients are in foods. It's there for the reading.

Nutritional labeling is now a part of any canned, frozen, processed or packaged food which the producer claims is "nutritious," advises Mary Darling, extension nutritionist at the University of Minnesota. Also, all foods to which nutrients have been added, such as vitamin or protein fortified breakfast cereals, or other fortified foods and enriched bread, must be nutritionally labeled.

Reading the nutritional labeling information on a package will help you:

- \* become more aware of the key nutrients needed for good nutrition and health
- \* recognize the specific nutrients present in individual foods
- \* compare the nutritive values and relative costs of different foods
- \* select foods for the whole day that in total will supply the recommended amounts of vital nutrients.

If you were to examine a box of ready-to-eat cereal, for example, you will find that a serving size is described, both in ounces and cups. Sometimes, in addition, mention is made of cereal in combination with milk.

-more-

add 1--labels have nutritional info

Next, you will find the number of calories in a given amount. This is broken down into the nutrients, giving the amount of calories from the protein, carbohydrates, and fat, so you'll know whether this product comes close to meeting them. The recommended daily nutrient amounts are also noted. The U.S. RDA (U.S. Recommended Daily Allowance) lists the nutrients supplied by a single serving of this food as a percentage of the total amount recommended for each day. So, if the information lists 25 beside protein, it means that a serving meets 25 percent or one-fourth of your daily need for protein.

Better wear your glasses so you can read the nutritional information that is available today. This is a great step forward by manufacturers to tell the public what is contained in their product.

-lsn-

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January 26, 1976

4-H NEWS

Immediate release

TRAINING SESSION  
SET FOR 4-H  
CAMP STAFF MEMBERS

Training for 4-H camp staff members in this area will be held \_\_\_\_\_  
(dates)

at \_\_\_\_\_ near \_\_\_\_\_.  
(camp) (town)

The workshop is being offered by 4-H Youth Development at the University's Agricultural Extension Service to help develop an understanding of camping, youth people and the roles and responsibilities of various camp staff members.

Special interest sessions include campfire programs, inspirational activities, nature programs, environmental activities, recreation, song leading and evening programs.

4-H junior leaders interested in serving as counselors this summer should contact \_\_\_\_\_ at the \_\_\_\_\_ County Extension Office.

-daz-

CA

Locations, dates:

Silver Lake Camp	April 8-10
Shetek Lutheran Bible Camp	April 22-24
Bald Eagle Center	April 29-May 1

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Immediate release

RESEARCH BENEFITS  
TOO OFTEN HIDDEN

St. Paul, Minn.--Burdens placed upon agricultural research could damage the state and national economy, says William F. Hueg Jr., the deputy vice president and dean of the Institute of Agriculture, Forestry and Home Economics at the University of Minnesota.

"Many people are two and more generations away from the farm and they have lost sight of how and where food and fiber comes from," says Hueg in the winter issue of Minnesota Science, research magazine of the UM Agricultural Experiment Station.

"As the numbers of individual farms and farm operators become less, the results of research will be put into use faster. This reduction in research undertaken and acceleration in use of research output may have serious consequences in the near future.

"The most telling point is the role of food and agricultural products in the balance of payments: For fiscal 1975 that figure is about \$22 billion earned from agricultural products, and this will repeat in fiscal 1976 even though farm prices are lower.

"Agricultural products are the major sales of the United States to world markets. If we are to continue to meet this world demand, food and fiber production must be undergirded by strong and continued research."

-pem-

CA, IA

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January 26, 1976

Immediate release

SOIL ADDITIVE?  
BE CAUTIOUS

St. Paul, Minn.--Soil additives may help, hinder, or simply be worthless to soils, say University of Minnesota soil researchers.

Recently, a tremendous increase in the production and marketing of various soil additives has occurred.

"These additives include organic and mineral fertilizers, organic and mineral biocides, and various soil conditioners, including synthetic and so-called natural products," point out UM soil scientists Robert J. Rennie and Russell S. Adams, Jr.

"Some of these organic soil additives work if used in sufficient quantity or if there is some soil deficiency which the additive may satisfy," say the UM scientists in the winter issue of Minnesota Science, magazine of the UM Agricultural Experiment Station.

In determining whether an additive will be of value, say the researchers, consider:

- Will the soil additives be beneficial at the suggested application rates?
- Will the soil additives be economical?

"To answer these questions a farmer should know what the additives do to the soil," say Rennie and Adams. "The additive might already be naturally present in the soil. Perhaps more of the additive is needed, perhaps none."

The University of Minnesota agricultural researchers give this caution:

"Many organic soil additives or natural soil additives are sold with detailed recommendations for farming practices to follow. These are usually commendable practices that may alone give the responses obtained without application of the additive if the farmer has not been following such practices in the past."

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Immediate release

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NEW CAR GAS  
MILEAGE GUIDE  
AT COUNTY OFFICE

Passenger automobiles consume about one-seventh or 14 percent of all the energy used in the United States. That's more than three-tenths of all the petroleum used in the country.

The average passenger automobile fuel economy is less than 13.7 miles per gallon. A major factor in fuel economy is the make and model, but the weight of the vehicle also is very important. The smaller the vehicle, generally the better the fuel economy.

Optional equipment, such as larger engines, automatic transmissions, power assists and air conditioning, not only require more fuel to operate, but also add weight. Front end designs influence wind resistance. Personal driving habits and engine condition are other factors affecting fuel economy.

Results of fuel economy tests on 1976 automobiles and light duty trucks are in the Federal Energy Agency publication, "1976 Gas Mileage Guide for New Car Buyers." A few copies are available at the \_\_\_\_\_ County Extension Office. This publication provides the energy-wise buyer an opportunity to compare fuel economies before choosing a new car.

-daz-

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January 26, 1976

Immediate release

ADVICE GIVEN  
FOR WINTERING  
BEEF COWS

There are a number of rules of thumb to aid cattlemen in wintering pregnant beef cows, an extension animal science specialist at the University of Minnesota says.

According to Ray Arthaud, pregnant beef cows should be wintered with two primary objectives: making sure they will be in ideal calving condition in the spring and keeping costs to the minimum consistent with meeting nutritional requirements.

Not all pregnant cows should get the same treatment, he says. Rather they should be fed in groups, if possible, according to age and condition. Yearling bred heifers, for example, should get different treatment than mature cows.

Yearlings should get the most careful attention. Each heifer should get a daily ration equivalent to either a full feed of very good quality hay, or poorer hay plus three to five pounds of grain, or a full feed of corn silage plus one to 1½ pounds of supplemental protein.

Mature cows, on the other hand, can afford to lose some body weight if they started the winter in good condition. For them a sufficient daily diet might include corn stover plus five pounds of good legume hay, or 16 to 20 pounds of good legume hay, 20 pounds of a legume-grass hay mixture. Poor quality grass hay should be supplemented with protein.

All animals should get a trace mineralized salt plus a mineral supplement high in phosphorus and also containing calcium. They should also get about 20,000 units of Vitamin A each day, either from the forage or from a supplemental source.

-more-

add l--advice given for wintering beef cows

The Vitamin A can be provided by feeding good quality green hay which is less than a year old.

Many cows are now in the last six to eight weeks of pregnancy when adequate vitamin A is very important. At the same time, the hay is getting older and has less Vitamin A potency.

"If you have any doubts about the vitamin content of your hay, consider using a commercial vitamin supplement," Arthaud says.

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January 26, 1976

Immediate release

ATT: Extension Home Economists

MSC  
9A27P

SAUSAGE RECIPES  
COULD BE DANGEROUS

Widely-circulated homemade sausage recipes are causes for concern according to a University of Minnesota specialist. The amounts of meat cure salt called for in the recipes often exceed U.S. Department of Agriculture limits for sodium nitrite in commercial meat processing.

Sodium nitrite is under attack because under certain conditions, the natural breakdown of products of proteins known as amines can combine with nitrites to form cancer-causing nitrosamines. Nitrates can be reduced to nitrites by microorganisms in food and in the body.

Most of the recipes that Isabel Wolf, extension foods and nutrition specialist at the University of Minnesota, has seen call for one to one and a half tablespoons of meat cure salt (a mixture of table salt, sodium nitrate, sodium nitrite and spices) to each pound of meat.

Mrs. Wolf warns that some such sausage recipes contain twice as much sodium nitrite as USDA regulations allow in commercially prepared sausages. The USDA's Expert Panel on Nitrites and Nitrosamines is proposing a ban on the use of sodium nitrate in nearly all sausage and cured meat products and a reduction in nitrite limits to the lowest level necessary to prevent development of botulinum in cured meat products.

Mrs. Wolf also advises against the use of old sausage recipes calling for saltpeter, a potassium or sodium nitrate compound, because the amounts called for may be excessive. There is a possible risk, she says, of nitrate poisoning from using too much nitrate in meat curing as well as the risk from nitrites formed by bacteria or in the gastrointestinal tract when the body breaks down nitrates.

-more-

add 1--sausage recipes could be dangerous

"If you want cured meat with the color and flavor of nitrite-cured sausage, you're much better off to buy commercially produced ones where the level of nitrite is carefully controlled," she says.

Recipes for fresh pork sausage, scrapple, summer sausage and jerky can be found in the extension service's animal science Fact Sheet 26 "Processing Meat in the Home." Animal Science Fact Sheet 28 "Nitrite in Meat" also explores the issue. Copies are available at your county extension office or by writing to the Bulletin Room, 3 Coffey Hall, University of Minnesota, St. Paul 55108.

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ATT: Extension Home Economists

Immediate release

MSC  
JAGP

ENERGY SAVING TIPS  
STILL MAKE \$ENSE

The energy shortage may not be making headlines as often as two years ago, but it's still with us. Americans comprise six percent of the world's population, but we consume more than one-third of the world's energy.

"Tips for Energy Savers," a new publication available free from the Consumer Public Documents Center, Pueblo, Colo. 81009, lists suggestions for "saving energy as if it were money."

\* In tiers of lights, remove one bulb out of three and replace it with a burned-out bulb for safety. Concentrate light in reading and working areas and for safety.

\* When high illumination is desirable, use one large incandescent bulb rather than several small ones. Use long-life incandescent bulbs only in hard-to-reach places. They are less efficient than ordinary bulbs.

\* Instant-on television sets, especially tube types, use energy even when the screen is dark. To eliminate this waste, plug the set into an outlet that is controlled by a wall switch and turn the set on and off with the switch.

\* Clean or replace filters in forced air heating systems several times each winter. Dust or vacuum radiator surfaces. Keep draperies and shades open in sunny windows; close them at night.

\* If you have a dishwasher, let your dishes air dry. After the final rinse, turn off the control knob of the dishwasher and open the door.

\* If your refrigerator has a switch-controlled sweat heater (a heating element around the door to prevent condensation in humid weather), turn off the heater except during spells of humid summer weather.

-more-

add 1--energy saving tips

\* Separate clothes to be dried into heavy and lightweight items. The dryer won't have to operate as long for light loads. Dry clothes in consecutive loads to save the energy needed to bring the dryer up to the desired temperature.

\* Select automobiles and appliances on the basis of initial cost and operating expense. Products that are more expensive initially but are energy-efficient will cost less over a period of years than lower-priced products that consume more energy.

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January 26, 1976

Immediate release

PROGRAM FOR  
BEEF COW-CALF  
DAY COMPLETED

The beef cow-calf day in this area is set for \_\_\_\_\_ at  
(date)

\_\_\_\_\_  
(location)

University of Minnesota animal scientists and veterinarians will discuss reproductive health for the breeding herd, calving problems, health of the young calf, energy requirements for beef cows, crossbreeding and how performance records can be used in a commercial herd.

Registration for the day-long program begins at 9:15 a.m. and the program starts at 10 a.m.

(Agents: you may wish to add more specifics about the program in your area)

CA

# # # #

Beef Cow-Calf Days

Bagley, Legion Club, Feb. 2  
Roseau, Roseau Auditorium, Feb. 3  
Crookston, N.W. Experiment Station, Feb. 4  
Hinckley, Tobies Restaurant, Feb. 17  
Grand Rapids, Rainbow Inn, Feb. 18  
Staples, North Campus Audit., Vo-Tech School, Feb. 19  
Rochester, 4-H Bldg., Fair Grounds, Feb. 24  
Pipestone, Vo-Tech School, Feb. 25  
Morris, Edson Hall, Univ. of Minn., Feb. 26

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Immediate release

IN BRIEF. . . .

Weed Problems. Identify your specific weed problem before you select a herbicide. In many fields you need herbicide mixtures or multiple treatments to get broad spectrum weed control, says Gerald Miller, extension agronomist at the University of Minnesota.

Several mixtures are labelled for use and the Environmental Protection Agency (EPA) does not consider it illegal to use mixtures that are not labelled, providing each herbicide in the mixture is labelled for use on the crop. However, the user is considered responsible for the results of using unlabelled mixtures. More information is available in Extension Folder 212, "Cultural and Chemical Weed Control in Field Crops--1976," available from the \_\_\_\_\_ County Extension Office or the Bulletin Room, University of Minnesota, St. Paul 55108.

\* \* \* \*

Herbicides. Herbicides are used on about 90 percent of Minnesota's corn and soybean acreage, about 80 percent of the small grain acreage and on all sugarbeets. "Returns for herbicide use have been excellent in terms of increased yields, higher quality crops and reduced labor and fuel requirements," says Gerald Miller, extension agronomist at the University of Minnesota.

\* \* \* \*

Cattle Feeding. The number of cattle and calves on feed in 23 states for slaughter markets totaled over 12.2 million head on Jan. 1, 1976. This was up 28 percent from a year earlier. Marketings during the last quarter of 1975 totaled 4.9 million head, down 11 percent from a year earlier, says the U. S. Department of Agriculture. Also in the 23 states, the number of feedlots with a capacity of 1,000 head in 1975 declined by eight percent from 1974, while the number of smaller feedlots increased slightly.

# # # #

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January 29, 1976

MSC  
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Programs are available to all  
people regardless of race, creed,  
color, sex, or national origin.

SPECIAL SHORT COURSE SCHEDULE (February - July 1976)

- February 2-13 Lumbermen's Short Course, Kaufert Laboratory of Forest Products, St. Paul Campus. To bring retail lumber personnel up-to-date on new ideas and techniques; acquaint industry with the University's teaching, research and facilities; and train personnel in the building supply field.\*PS
- February 3-6 Better Process Control, Food Science & Nutrition Building, St. Paul Campus. To provide training, examination and certification so that canners in Minnesota and the Upper-Midwest can comply with Federal regulations Pat. 128b--Thermally processed Low-Acid Foods Packaged in Hermetically Sealed Containers--of the Food and Drug law.\*GW
- February 5 Crops and Soils Day, Feb. 5, Lamberton.+
- February 5 Maple Sugar Short Course, North Star Ballroom, St. Paul Student Center. For people interested in the art and science of working the sugar bush.\*PS
- February 5 Winter Crops Day, Lamberton.+
- February 5 Sheep and Lamb Feeders Day, Morris Experiment Station.+
- February 5, 9, 10, 12, 16, 17, 19, 24, 26, March 11, 15, 16, 18, 22, 23, 25, 30, April 1 1976 Consumer Housing Short Course for East Central District, Feb. 5-March 11, Wright Co.; Feb. 9-March 15, Washington/Ramsey Co.; Feb. 10-March 16, Sherburne Co.; Feb. 12-March 18, Stearns Co.; Feb. 16-March 22, Scott Co.; Feb. 17-March 23, Anoka Co.; Feb. 19-March 25, Dakota Co.; Feb. 24-March 30, Isanti Co.; Feb. 26-April 1, Hennepin Co. To provide information to consumers anticipating building or buying a house with information that contributes to rational decision-making. Emphasis is on single-family, detached units, especially new construction.\*GW

-more-

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- \* For further information call Office of Special Programs  
LF--LaVern Freeh 612-373-0725  
CN--Curt Norenberg "  
RM--Richard Meronuck "  
GW--Gerald Wagner "  
PS--Paul Stegmeir "  
Ø For more information contact Stan Meinen, 373-1083  
+ For further information call the Research or Experiment Station designated.

add 2--special short course schedule

- March 10,11,  
17,18 Fair Management Short Courses, Elks Club, Owatonna, March 10; Donovan's, Redwood Falls, March 11; Erie Jr., Detroit Lakes, March 17; Oaks Supper Club, Little Falls, March 18. Management Principles for county fair improvement. For fair board members, fair officers, superintendents and supervisors who have management responsibilities for county, district, and state fairs.\*CN
- March 13-19 Interstate 4-H Leader Forum, National 4-H Center, Washington, D.C. Open to any volunteer 4-H leader and their spouse. To help leaders gain new ideas and broaden their understanding of youth and 4-H in the U.S. Ø
- March 15,16,  
17,18 Forest Owners and Users Conference, March 15, Duluth; March 16, Bemidji; March 17, St. Paul; March 18, Winona. For forest landowners and others interested in forest land management. Topic is alternative methods of increasing recreational, aesthetic wildlife and timber values of forest land.\*PS
- March 16,17,18,  
23,24,25 Dairyman's Day, Southern Experiment Station, Waseca, March 16; Jeffers, March 17; Morris Experiment Station, March 18; Northwest Experiment Station, Crookston, March 23; Grand Rapids, March 24; Sioux Falls, SD, March 25.+
- March 19 Sugarbeet Growers Institute, NW Experiment Station, Crookston.+
- March 21-22 Commercial Small Fruit Short Course--Raspberry, Strawberry, North Star Ballroom, Student Center, St. Paul Campus. For commercial small fruit growers.\*RM
- March 22-24 Liquefied Petroleum Gas, St. Paul Campus. A concentrated study program on the latest technical service, and commercial developments in liquefied petroleum gas equipment and appliances. For servicemen and technicians in the Minnesota gas industry.\*CN
- March 22-26 Dairy Herd Improvement Association Supervisor Training Short Course, St. Paul Campus. To train prospective DHIA supervisors. For individuals or married couples interested in doing this kind of work.+
- March 22-26  
April 5-9 Township Officers Short Course, March 22, U of M Technical College, Waseca; March 23, Holiday Inn South, Rochester; March 24, Willmar Community College; March 25, Southwest State University, Marshall; March 26, St. Johns University, St. Cloud; April 5, Moose Lodge, Brainerd; April 6, Holiday Inn, Fergus Falls; April 7, Detroit Lakes AVTI; April 8, Auditorium, Thief River Falls; April 9, Rainbow Inn, Grand Rapids. To help officers understand their roles and responsibilities and provide them with technical knowledge and updated reference materials for the township officers handbook.\*GW

add 4--special short course schedule

- May 6-7                   Conference on Maternal and Newborn Nutrition and Health. Radisson South Hotel, Bloomington. For pediatricians, obstetricians, nurses, dentists, family practitioners, dietitians, nutritionists, nurse clinicians, midwives, etc. To develop an awareness of the health problems and needs of the pregnant adolescent and infant.
- May 21-23                 Minnesota State Fire School, St. Paul Campus. For volunteer and paid fire department personnel, city officials, and interested government and industry personnel who deal in fire safety, prevention, control and rescue and first aid work.\*PS
- June 28,29,30  
July 1,2                 Feed Mill Operators. Locations: Rochester, Mankato, Worthington, Alexandria. (Locations and dates to be matched later.) Formulation of high quality feed, including a presentation on molds and mycotoxin and how they affect feed quality. Watch for further details.\*RM
- June 29  
July 8,14                Crops and Soils Field Day (Visitors Day), Waseca Experiment Station, June 29; Morris Experiment Station, July 8; Crookston Experiment Station, July 14.+
- July 5-8                 Agricultural Education Seminar, Radisson South, Bloomington, (July 8, St. Paul Campus). For instructors and administrators of vocational and technical educational programs in agriculture.\*LF

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February 2, 1976

Immediate release

BEET FARMERS: WATCH  
FOR POWDERY MILDEW

Sugar beet producers in Minnesota should be on the lookout for evidence of a damaging fungus which made its first appearance in the state late last summer.

"At this time we don't know if the fungus can overwinter in Minnesota," says Howard L. Bissonnette, extension plant pathologist at the University of Minnesota. "But if it does successfully overwinter, its inoculum is well dispersed for the upcoming sugar beet crop."

The disease, commonly called powdery mildew, was discovered in Renville County early last September. It has been reported as far north as Grand Forks in the Red River Valley.

In Renville and surrounding counties, the disease was found in almost all sugar beet fields and on more than 25 percent of the plants. It was not so prevalent in fields further north.

According to Bissonnette, early symptoms of powdery mildew are hard to detect. The first indication will be a very slight white or gray fungal growth occurring in small patches on the plants' older, lower leaves. Gradually the leaf surface is covered by the fungus and the disease spreads to upper leaves. After three or four weeks, leaves turn yellow and dry.

The fungus can cause measurable damage to the crop in 30 days if left unchecked. It can reduce root yield and sugar content in the beets.

Fortunately, powdery mildew can be controlled with fungicides, Bissonnette says. But early detection is important since tests in California indicate that once half the plants in a field are infected, some crop loss can be expected.

-more-

add 1--beet farmers: watch for powdery mildew

Sulfur fungicides are the most promising chemicals for control. Last year sulfur was used under a temporary emergency registration.

Although scientists still don't know whether the fungus can overwinter in Minnesota, they have found many weeds infected with powdery mildew. If the disease can survive on weed hosts, it may spread to the sugar beet crop as early as mid-July, Bissonnette says.

The fungus is dependent on high humidity--a condition which normally occurs as plant leaves enlarge and cover the rows in late July when there are light rains and cool nights.

Powdery mildew was first identified in 1903 in Czechoslovakia and was reported in the United States in 1937. It has spread fast throughout the western states in the past two years, although scientists are not certain why.

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4-H NEWS

Immediate release

4-H'ers IN  
US-USSR  
EXCHANGE

Thirty young people engaged in agriculture from the United States and the Union of Soviet Socialist Republics will participate next summer in the first international 4-H exchange program between the two nations. The exchange marks the first time that young people from both nations will be able to live and work directly with farm families of each respective country.

Announcement of the new program was made by officials of the National 4-H Foundation, the Embassy of the Soviet Union, the U.S. Department of Agriculture and the International Harvester Co., which has granted funds to help make this pioneering effort possible.

Grant A. Shrum, executive director of the foundation, said the exchange is designed to strengthen communication and understanding between the peoples of the two countries and to help meet world food needs through sharing of modern agricultural technology.

The Soviet Union will host 15 specially selected young American men and women, in June, July and August of 1976. The program will include orientation in Moscow, four weeks at the Belorussia Agricultural Academy near Minsk, and six week assignments in small groups to work and live on state and collective farms. During the final week the group will travel to farms in western U.S.S.R. and return to Moscow for consultation.

For more information, contact \_\_\_\_\_ at the \_\_\_\_\_  
County Extension Office.

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BICENTENNIAL ART EXHIBIT  
SETS STATE TOUR

An exhibit of Minnesota's art and architecture heritage will begin rolling through the state next month. Among the 19 stops on the van's nine-month tour will be \_\_\_\_\_ from \_\_\_\_\_ to \_\_\_\_\_.  
(city) (dates)

The state tour, under the auspices of the Agricultural Extension Service, Continuing Education and Extension, and many commercial sponsors, is pegged to local Bicentennial observances.

A 42-foot van will transport about 40 paintings, numerous examples of Indian arts and crafts, architectural panels and folk art samples. At each stop the paintings and other exhibits will be installed in local public buildings. There will be no admission charge to the public for viewing the display.

The exhibit is sponsored by the University of Minnesota Gallery and the Minnesota Society of Architects. Paintings and artifacts in the display document Minnesota's history and the people who settled this region. Photomurals of architecture in the state depict major buildings, houses, small commercial buildings and farms.

The displays were gathered from museums throughout the country and will be returned to these institutions when the exhibit is over in December. Necessary renovation of some of the paintings was done with funds provided by the Minnesota American Revolution Bicentennial Commission.

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add 1--bicentennial art exhibit

(The schedule for the traveling exhibition is as follows: Willmar, March 26 to April 4; Marshall, April 9 to 18; Worthington, April 23 to May 2; Winona, May 7 to 16; Mankato, May 21 to 30; Rochester, June 4 to 13; Austin, June 18 to 27; St. Paul, July 2 to 11; Alexandria, July 16 to 25; Brainerd, July 30 to Aug. 8; Little Falls, Aug. 13 to 22; Grand Rapids, Aug. 27 to Sept. 6; Hibbing, Sept. 10 to 19; International Falls, Sept. 24 to Oct. 3; Duluth, Oct. 8 to 17; Bemidji, Oct. 22 to 31; Moorhead, Nov. 5 to 14; Crookston, Nov. 19 to 28, and St. Cloud, Dec. 3 to 19. Exact locations within the cities have not yet been determined.)

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PLANT EARLIER:  
INCREASE YIELDS

ST. PAUL, Minn.--Many Minnesota farmers could increase corn yields simply by planting earlier, says University of Minnesota agronomist Dale Hicks.

He cites eight years of experimental work on an investigation at UM's Agricultural Experiment Station.

"Research over the eight year period shows that you'll get highest yields from an early planting date, usually April 20 to 25," says Hicks.

But what about possible frost damage from planting corn early in spring?

"Even if you do plant corn and get a killing spring frost it won't hurt the crop," says Hicks. "Corn can stand a killing spring frost until it gets past the 5-leaf stage, and this is well into June in most years. And in the eight-year study at three Minnesota locations--Morris, Lamberton, and Waseca--we've never had a damaging frost in spring."

With soybeans, by planting in early May instead of mid-May, you can get two or three bushels per acre more with little extra effort, University of Minnesota research shows. Three-year average yields of three popular varieties planted in early May at Waseca and Lamberton were 2.0 to 4.4 bushels per acre greater than the same varieties planted in mid-May. Furthermore, the earlier-planted beans matured two to three days earlier.

"Good management practices can help soybeans ride out an early fall frost," says Hicks. "For example, a field with normal fertility will be less damaged by an early frost than will a field with low fertility."

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IN BRIEF. . . .

Seeding Forages. The latest information on forage varieties is found in a University of Minnesota report. It's Miscellaneous Report 24, "Varietal Trials of Farm Crops" (Dec. 1975), available from county extension offices or the Bulletin Room, University of Minnesota, St. Paul 55108. Alfalfa producers should plant at least 75 percent of their acres to winter hardy varieties, advises Neal Martin, extension agronomist at the University. Also consider disease resistance. Detailed information is available in the report.

\* \* \* \*

Wood Crisis? It's "almost unavoidable" that the U.S. will develop a wood shortage in the short run, a University of Minnesota forestry professor says. "About the time we build housing starts back to the level of several years ago we're going to run headlong into a shortage of construction materials," says James Boyer, a forest products specialist with the University. Noting that the U.S. is not self sufficient in wood fiber, Boyer says we need to recognize the danger of assuming that other nations will continue to supply us with resources. And we need to "become aware of the importance of wood in the whole scheme of things--then identify lands of high productive capacity and set about raising timber the way we know how."

\* \* \* \*

Wind Erosion. Over one million acres in 10 Great Plains states were damaged by wind erosion in November and December 1975. This was more than double the damage during the last two months of 1974, according to the Soil Conservation Service (SCS). Causes include a shortage of moisture and lack of crop or snow cover. Over 10 million more acres are in danger of wind erosion over the next few months because of existing conditions, SCS says.

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FARM FAMILY:  
A MODEL

ST. PAUL, Minn.--In the early days of farming, the farm family was the national model, points out Keith Huston, director of the University of Minnesota Agricultural Experiment Station.

"Women and children, the families of the farmers, always shared in the activities of the father and in earning a livelihood; whereas, in the city this was not usually true. In our early agrarian society, farm life and its family life were idealized as being a highly desirable national way of live."

Needs of women as homemakers and family leaders created demands for new and better methods of food preservation, cooking, sewing, clothing design, gardening, rearing families, and a host of other demands.

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Immediate release

USE MORE FERTILIZER  
FOR COLD SOILS

ST. PAUL, Minn.--Minnesota agricultural researchers have found that cold soils need more fertilizer than warm soils.

"Cold soil temperatures retard plant nutrient uptake," says University of Minnesota soil scientist Curtis Overdahl. "Experiments in growth control chambers showed there was three times less phosphorus in corn plants grown in soil temperatures of 60<sup>o</sup>F than at 80<sup>o</sup>F."

Potassium from fertilizer increased corn yields by three times during a cold spring, but only slightly during a warm spring. Crop response to nitrogen is also larger when soils are cold. The decomposition of organic matter, an important nitrogen source, is slowed by cold soils, according to UM scientists.

The cold soil problem can be more efficiently corrected with row fertilizer treatments than with broadcast applications, say UM researchers. Minnesota field experiments show that highly fertile, heavy soils, which are row-fertilized give corn yield increases of five to 10 bushels per acre, as compared to plots broadcast fertilized.

"But on fertile soils, we recommend starter fertilizer where the soil is cold and wet," says Overdahl. "Lighter soils warm more rapidly and don't need starter fertilizer to such a great extent."

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Immediate release

YOUR SWINE BREEDING  
HERD CAN DO BETTER

Push your swine breeding herd towards their current genetic potential before you get carried away with selection for increased reproductive potential.

"Most swine breeding herds aren't even close to producing what they're capable of," says Dr. Al Leman, University of Minnesota veterinarian. However, most management practices designed to get the most from your current breeding herd will also help select for genetic progress in breeding herd efficiency, he adds.

Concentrate on four main areas for the most rapid change, the Minnesota swine veterinarian advises.

--Breed gilts at an earlier age and get them out of confinement at five or six months of age. They need more space and new neighbors, including an aggressive boar in an adjacent pen. Breed them as soon as they've had one heat cycle-- by eight months of age or at 250 pounds. "A gilt that hasn't farrowed a litter when she reaches one year is reproductively lazy," he adds.

--Cull non-pregnant females. "If gilts don't conceive after two opportunities, cull them. And cull sows if they aren't in the farrowing house at least once every seven months. This requires individual sow identification, but successful managers of large breeding herds will tell you it pays off," Leman says.

You can cull either by pregnancy diagnosis or by detecting returns to heat. Many successful breeding herd managers breed extra gilts, then test for pregnancy and cull. This way the non-pregnant gilt has gained weight and little efficiency is lost.

-more-

add 1--your swine breeding

--Rebreed the sows at the first heat after weaning. "If you wait three weeks she owes you another pig per litter," Leman says.

--Breed more females during July, August and September. Since breeding herd performance is lower in these months, the only alternative is to keep more gilts for breeding at that time.

"Keep records and establish reasonable goals. Your management will improve as you work toward the goals. When your record system is working, select from the top 50 percent of the mothers, or cull from the bottom 50 percent. You may want to select only from dams who weaned 15 pigs per year, or cull any female that doesn't get into the farrowing house every seven months."

The best measurement of reproductive efficiency is pigs weaned per female per unit of time--a month, year, or other convenient increment, says Leman.

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Immediate release

CAUTION ADVISED ON  
SOLAR HEATING SYSTEMS

"Extravagant claims are being made about the value of solar heating systems-- study all promotional statements very carefully," advises Clifton Halsey, University of Minnesota extension conservationist.

"A good trouble-free system with sufficient heating capacity is very costly at present and is not the immediate solution to the energy crisis," he says.

The initial cost of solar heating systems using liquids is so high they're not economically feasible at the present time, University of Minnesota mechanical engineers say. The interest cost alone is larger than the value of the fuel saved.

For example, a flat-plate collector system should have a surface area equal to at least 50 percent of the home's floor area. A house with 1,000 square feet of floor space would need 500 square feet of solar heat collector surface to supply a significant portion of the heating and cooling capacity for the house. Material costs alone for the collectors range from \$10 to \$15 per square foot of collector surface.

"That's more than \$5,000 for the collector alone without installation, piping, the heat storage unit or heat exchanger unit. In addition, you need a conventional heating system to provide enough heat for very cold weather and for long periods of cloudy weather," says Halsey.

A good, trouble-free system must be very durable. Extremely high temperatures develop in the collector components if the liquid is not circulating--higher than in the cooling system hoses of a car. Cheap connections with rubber hoses and clamps are apt to eventually leak as the rubber deteriorates. "Some types of insulation used beneath the collectors have melted. The insulation must be able to withstand high temperatures," Halsey emphasizes.

add 1--caution advised on solar heating

Some systems use aluminum absorber plates. The quality of the circulating water must be very carefully controlled in these systems to avoid internal corrosion of the aluminum. Ordinary water softeners won't take care of the problem. The average homeowner needs a fool-proof system, says Halsey.

The "state of the art" is changing rapidly as research and demonstrations develop. "Some of the systems being used at present are failing, but much is being learned and many improvements are expected," Halsey adds.

There are no universal performance standards and specifications for solar heating and cooling systems at present, Federal agencies are working on them and the National Bureau of Standards has a guide for efficiency ratings.

The University of Minnesota does not have an in-depth extension education program on solar energy for the general public. However, there are many articles on the subject in the popular magazines. The Reader's Guide to Periodical Literature in local libraries lists the issues of magazines containing articles on the subject under "solar heating." Several newsletters and periodicals deal specifically with solar heating.

The Environmental Conservation Library in Minneapolis (ECOL) has some of these newsletters. The titles of these periodicals are available from local libraries or the county extension office. ECOL also has a substantial number of books on the subject of solar heating. Their address is Environmental Conservation Library, Minneapolis Public Library, 300 Nicollet Mall, Minneapolis, MN 55401. Phone (612) 372-6609. Local libraries can help get publications from ECOL.

A few heating and air conditioning firms and solar equipment manufacturers also provide a consulting service.

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Immediate release

ROUGH FISH:  
NEW FOOD;  
NEW INCOME

ST. PAUL, Minn.--Rough fish can be an economic boon for some Minnesotans.

"The Minnesota Department of Natural Resources estimates that 17 million pounds of carp, sheepshead, suckers, buffalo, tuipece and burbot can be harvested annually," says UM food scientist Eugene H. Sander.

"Add to this a sustained supply generated by fish agriculture in marginal walleye lakes and farm ponds and we have generated a new source of revenue for rural Minnesota."

UM researchers are adapting fish processing techniques, de-boning and extrusion shaping, for the use of minced rough fish in recognized consumer products, such as cakes and sticks.

"The resulting products are tasty and palatable in every respect," says Sander.

The Minnesota scientists are also experimenting with ways to combine extrusion with other shape-setting and texture-improving techniques such as product contact with steam, microwaves or freezing liquified gases.

"Such innovations assure processors of maximum flexibility in product formulation and extrusion capability without reliance on patented chemical reaction techniques which require licensing and royalty payments," says the University of Minnesota food scientist.

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February 9, 1976

4-H NEWS

Immediate release

BICENTENNIAL WAGON  
TRAIN PILGRIMAGE  
INVITES YOUTH

Young people and local groups, including 4-H clubs, interested in horsemanship are invited by the Minnesota Horse Council and Minnesota American Revolution Bicentennial Commission to participate in the Bicentennial Wagon Train Pilgrimage.

Some 4-H horse club members along the Mississippi route will be involved in supporting the wagon train by supplying hay and grain for horses at each stop.

The pilgrimage, reenacting the pioneers' westward movement, will trace the historical trails and wagon routes of the nation. The Great Lakes Route Wagon Train will begin its trip in the Twin Cities on April 11 and will arrive in Philadelphia by July 4. Tentative plans are for the train to stop overnight in Hastings, Red Wing, Wabasha and Winona before crossing the Mississippi River at LaCrescent.

Pennsylvania has given each state a prairie schooner wagon and has provided, through the cooperation of the North American Trail Conference, a four horse hitch to pull the wagon while it is on the National Wagon Train Route. Entertainment will be provided by participating groups and the official wagoneers.

Groups, individuals and families may join or disengage from the pilgrimage along the way. Interested persons should contact: Dr. Wes Schroeder, P.O. Box 292, Long Lake 55356, or Minnesota American Revolution Bicentennial Commission, 12 State Capitol, St. Paul 55155. Application forms must be returned to the Horse Council by March 15.

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WHEY CUTS COSTS  
FOR PROCESSED FOODS

Little Miss Muffet's specialty, whey, is helping food processors keep costs down. This byproduct of cheesemaking, which used to be discarded as worthless, is being used widely to replace dry milk in baked goods, beverages, and cheese spreads, pasta and even margarine.

Whey is the liquid left when cheese curd is separated from the remaining milk ingredients. Its composition is similar to skim milk so when dried it can substitute for costlier nonfat dry milk.

Vernal S. Packard, extension dairy products specialist at the University of Minnesota, says more than 30 billion pounds of fluid whey result from cheesemaking each year, and nearly 60 percent is used.

"The cheese industry is expanding so the amount of whey available is also," Packard says. "And the profit margin from the manufacture of cheese often depends heavily on the sale of whey to other food manufacturers."

Whey contains milk sugar (lactose) and protein components that can be extracted and used in products as diverse as jams and jellies and pill coatings.

Whey is a wholesome, nutritious product, Packard says, but its use as a substitute or replacement for milk may make consumers think it is somehow inferior.

"Consumers may not understand that food substitutes, either as ingredients in foods or as food per se, have much to offer," Packard says. "They aren't inherently bad or inferior, and they make better use of our food resources. As recently as 25 years ago, probably 75 percent of whey was dumped down the drain where it posed a huge pollution problem, but now it's playing an important role in the food industry."

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MSC  
JHP  
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IN BRIEF. . . .

Forage Mixtures. Dairymen aiming for high protein content in hay or low moisture silage should keep forage mixtures simple. Mix only one grass species with alfalfa and adjust seeding rates to plant about 75 percent alfalfa and 25 percent grass, advises Neal Martin, extension agronomist at the University of Minnesota. However, if you plan to use the forage for pasture, seed more grass to help prevent bloat. More information on forage mixtures and varieties is available in two University of Minnesota publications available at the \_\_\_\_\_ County Extension Office. Ask for Miscellaneous Report 24 (Variety Trials); and Agronomy Fact Sheet 30 (Forage Mixtures).

\* \* \* \*

Managing Forages. A good forage program can supply all the protein you need in your dairy ration. Alfalfa harvested at first flower normally contains between 18 and 20 percent crude protein. And cool season grasses such as reed canarygrass, bromegrass and orchardgrass harvested at early growth and fertilized with 150 to 200 pounds per acre of actual nitrogen will equal alfalfa in yield and percentage crude protein. More information is available in two publications, available at the \_\_\_\_\_ County Extension Office. They are Miscellaneous Report 24 (Variety Trials); and Agronomy Fact Sheet 30 (Forage Mixtures).

\* \* \* \*

Good Seed. With over 3 million acres of hay in Minnesota there's going to be a lot of forage seeding done this spring. Use seed of known purity and high quality, advises Neal Martin, extension agronomist at the University of Minnesota. And there's no better way to do this than by purchasing certified seed. But make sure the seed tag says "certified." Just a tag on a bag of seed doesn't mean it's certified, Martin adds.

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IN BRIEF. . . .

Starting Plants Indoors. Some vegetables, such as tomatoes, peppers, eggplant and celery, need a long growing season and usually will not mature if seeded directly in the garden.

Other crops, such as head lettuce, cabbage, cauliflower and broccoli, must mature before hot weather.

Start these crops early in the house or buy plants at a seed store or greenhouse in these cases, Orrin C. Turnquist, University of Minnesota extension horticulturist says.

\* \* \* \*

Using Flats. Start vegetable seeds in flats that are three to four inches deep and not so long or wide that they can't be handled easily. Sides and ends from peach crates or apple boxes can be used to make flats. A good soil mixture contains two parts garden loam, one part sand and one part organic matter.

\* \* \* \*

Preparing Soil. After the soil is thoroughly mixed, sift it through a quarter-inch mesh screen. Fill the flat with the soil mixture, being careful to firm the soil along the sides and ends of the flat. After filling in the depressions, level the soil about one-quarter inch below the top of the flat. Firm the soil evenly with a brick or small tamper. Then make the rows about two inches apart and a quarter to a half-inch deep.

\* \* \* \*

add 1--in brief

Vegetable Seeds in Flats. After treating the seed, scatter it uniformly in the rows and label each row with a marker. Start warm season crops, such as tomatoes, in a flat separate from cool season crops, such as head lettuce, cabbage, broccoli and cauliflower.

Peppers and eggplants are slow to germinate so they should not be started with tomatoes. Cover the seeds lightly with sand, screened soil or peat moss.

\* \* \* \*

Watering Plant Flat. Water plants through a muslin cloth stretched over the flat. This will prevent washing seeds and soil. Cover the flat with a pane of glass and keep it in a warm room until the seeds germinate. As soon as the seedlings appear, remove the glass and keep the plants in full sunlight. Water carefully.

\* \* \* \*

Transfer Seedlings. When the first true leaves appear, vegetable plant seedlings should be transferred to other flats filled with the same soil mixture. Plant spacing should be two-by-two inches for head lettuce, cabbage, cauliflower and broccoli and three-by-three inches for tomatoes, eggplant and peppers. Make a hole with a short, pointed piece of broom handle and insert the seedlings. Press the soil firmly against the roots. Keep plants in a sunny window and water as needed.

\* \* \* \*

Other Methods. Sometimes vegetable seed is planted directly in plant bands, berry boxes or three-inch squares of inverted sod. These are especially useful in starting cucumbers, melons and squash or even beans or sweet corn for an early crop, since these crops will not stand serious root disturbance when transplanted.

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DAIRY IMPORT  
EFFECTS PROBED

Although dairy products are among the most protected items in international trade, elimination of all trade barriers would be less than devastating to most American dairymen.

But free trade is unlikely since the social and economic adjustments it would mean for the dairy industries of the "high-priced" countries primarily in Europe would be so great that free trade would be politically unacceptable.

Such are the conclusions of agricultural economists Boyd Buxton of the University of Minnesota and George Frick of the University of New Hampshire. Both work with the Economic Research Service of the U.S. Department of Agriculture.

In a free trade situation, they say, New Zealand and Australia (Oceania) would be the major world exporters of dairy products. Yet, even though the United States could not compete with Oceania's prices, the economists believe the American dairy farm would not vanish under free trade conditions because the Oceania countries which can produce milk cheaper and more efficiently do not possess the resources to significantly increase their supply.

Oceania produces only about four percent of the world's milk supply. Under complete free trade conditions (in Europe, Oceania, Canada and the United States), U.S. imports would roughly triple, rising from the present 1.5 percent to an expected five percent of domestic production.

Buxton and Frick believe a free trade policy would force an additional 4,200 of the over 200,000 U.S. dairy herds out of business. Consumer dairy prices would drop slightly.

-more-

add 1--dairy import effects probed

"Expected technology and transportation costs are such that the large U.S. fluid milk market will likely remain the domain of the U.S. farmer," they say.

The economists' conclusions are contained in a paper called "The Impact of Dairy Imports on the U.S. Dairy Industry." Single copies may be obtained free via postcard request from: Publications Unit, ERS, Division of Information, Room 0054, South Building, U.S. Department of Agriculture, Washington, D.C. 20250.

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Immediate release

FINANCE WORKSHOP  
SET FOR POULTRY  
FEDERATION MEET

A day-long workshop on financing a poultry operation will highlight the three-day Midwest Poultry Federation Convention March 3-5 at the Radisson Hotel, Minneapolis.

The morning session, beginning at 9 a.m. Thursday, March 4, includes a presentation of "What Records Will Help a Poultryman Obtain Credit?"

Brian E. MacNeill, tax consultant with Touch-Ross and Co., explains "Income Tax Planning That Can Help Preserve Cash for Expansion and Improve Credit Rating."

James A. Achter, Lease Northwestern Marketing officer, leads off the afternoon program, beginning at 1:30 p.m., with an explanation of "What a Lending Agency Needs to Extend Credit."

His presentation is followed by a panel of lenders describing their particular lending programs and explaining how they fit into the credit picture for poultrymen.

For more information, contact Robert Berg, extension poultry specialist, 208 Peters Hall, University of Minnesota, St. Paul 55108.

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AGRICULTURAL WORK  
EXPERIENCE OPEN  
IN POLAND FOR '76

Former Minnesota 4-H club members have an opportunity to earn while they learn as they work and live with farm families or on state farms in Poland.

The Poland '76 Agricultural Work Experience for Young America is being conducted through the National 4-H Foundation and the Cooperative Extension Service.

U.S. participants in this program will have a two-week intensive language study program in mid-June before leaving to spend six to 12 months in Poland. The length of stay will be determined before leaving the United States.

While in Poland, U.S. participants will be paid for work on host farms at about \$150 per month from which about \$20 a month will be deducted for food. Housing will be provided without cost.

The program is open to persons 19 to 26 years old with 4-H or rural youth organization experience and with a desire to learn Polish.

Applications are due at the State 4-H Office, 475 Coffey Hall, University of Minnesota, St. Paul, Minn. 55108, by April 15. For more information, contact the State 4-H Office or the \_\_\_\_\_ County Extension Office.

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AMERICANS WORKED LONGER  
TO EAT LAST YEAR

American factory workers continue to enjoy better food purchasing power than their counterparts in 13 foreign countries. But the gap closed slightly last year, according to U.S. Department of Agriculture statistics.

Americans had to work longer to feed themselves last year than in 1974 while the time required in other countries declined.

The reports says that U.S. industrial workers spent an average of two hours and 16 minutes on the job to earn enough to buy a nine-item list of groceries last year. This is up nearly 50 percent as compared with one hour and 32 minutes in 1974.

Samplings made in 13 foreign countries showed that factory workers there averaged four hours and 34 minutes to buy the same food items. That was down nearly six percent from four hours and 50 minutes the previous year.

These averages mean that foreign workers had to put in more than twice as much time as American workers to pay for the same food. Translated into terms of sirloin steak, the figures show that a U.S. worker worked about 25 minutes to pay for a pound of sirloin while a Japanese worker put in about six and one half hours. In Argentina, however, a worker only had to spend 11 minutes to earn enough to buy that piece of sirloin.

# # # #

MARKET BASKET PRICE  
CONTINUES CLIMB

The U.S. Department of Agriculture reports that the retail cost of its theoretical marketbasket averaged 7.2 percent more during 1975 than it did during 1974. Higher middleman charges accounted for nearly three-fourths of the increase, according to the USDA.

The market basket figure is based on 65 retail items in amounts that could supply a household of three persons for one year. It is compiled from prices in 1,500 supermarkets in 13 cities.

# # # #

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IN BRIEF. . . .

Wild Bird Pets? Each spring many birds are taken out of their nest or captured before they can fly. But wild birds do not make good pets--so leave them outside where everyone can enjoy them, the U.S. Fish and Wildlife Service says. Furthermore, all birds except the English sparrow, feral pigeon and starling are protected by state or federal law. If you find an injured or sick bird, contact state or federal wildlife officials. They will be able to take proper care of the bird.

\* \* \* \*

Feed Grains. Increased domestic feeding and expanded exports will push 1975-76 feed grain disappearance 14 to 16 percent above last year's 172 million tons, according to the U.S. Department of Agriculture. An estimated 125 to 133 million tons of grain will be used for domestic feeding this crop year, a 9 to 16 percent increase over last year. Exports are forecast at a record 48 to 52 million tons, which would be a 21 to 23 percent increase. Exports during the last quarter of 1975 totaled 15 million tons, the heaviest quarterly rate ever.

\* \* \* \*

Pig Stress. Some Pennsylvania research points out the importance of reducing stress on early weaned pigs at weaning time. Pigs from different litters were mixed at weaning or three weeks after weaning and were compared with pigs kept as litters throughout their growing-finishing period. When the mixed pigs were full-fed and received adequate space, they performed as well as those kept in litter groups. But when they were limited-fed and had restricted space, they gained one-quarter pound per day slower than those kept as litters. Weaning itself is a big stress. And performance can be severely affected if too many pigs or pigs of varying sizes are put in a pen, the pen is damp or drafty, or pigs have inadequate space.

\* \* \* \*

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HAY SHORTAGE  
PRESENTS PROBLEM  
FOR HORSEMEN

With hay hard to find, prices high and the crop of low quality, feeding a mature horse high quality alfalfa could be a luxury you cannot afford.

Robert M. Jordan, University of Minnesota extension animal scientist, says this is particularly so when high quality alfalfa provides considerably more protein, calcium, vitamin A, and B vitamins than the horse needs. Thus, high quality hay as the only feed fed is not any more valuable to the horse than hay with adequate but lower nutrient content.

If you mix "super" hay with lower quality forage, you end up with an adequate forage. If your horse is leaving feed it is generally a sign you are feeding too much.

Take stock of how much hay you have, the quality of your hay and how much you need between now and May 15. Feed the horse what he needs and explore the possibilities of using less expensive sources. Provide shelter so the horse is not burning feed trying to stay warm. If you are economizing on feed, do it with a mature horse, not a weanling, Jordan says.

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FEBRUARY SAFETY:  
THE FARM SHOP

Observing four basic rules can make the farm shop a pleasant, productive and safe place to work, says John True, University of Minnesota extension agricultural engineer.

Organize the shop by developing a plan that specifies storage space, work areas and space for speciality jobs with proper equipment and materials for that particular job. Provide proper storage for paint, oil, solvents and other flammables and provide proper storage for tools to protect working edges. Have the right tool for the job and provide a specific place for each tool.

Safety equipment should be used including guards on shop machinery and personal protective gear, such as goggles, face shields, bump caps and steel toed shoes. Use reliable hoisting equipment and jack stands and do not rely on hydraulic jacks or farm equipment hydraulic systems to hold machinery up while you are under it. Also provide fire extinguishers and ventilation.

Keep a clean shop since clutter leads to falls. Accumulated dust and grease are fire hazards and tools and equipment out of place will be damaged.

Make a set of rules for you and others to follow, then write them down.

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ADULT EDUCATION WEEK  
SET FEB. 29-MARCH 6

Don't stagnate--re-educate!

Now is a good time for Minnesotans of all ages to continue their education. Governor Wendell Anderson recently declared Feb. 29-March 6 Adult Education Week. He urged all citizens to observe the week and to make themselves better acquainted with all phases of adult and continuing education.

In proclaiming the week, the Governor pointed out that society is changing rapidly and that continuing or adult education will help Minnesotans meet changes more effectively. He suggested that all citizens visit or enroll in classes in their schools, colleges, churches, businesses, libraries, museums, recreational and other agencies offering programs for adults.

Many Minnesotans are already taking advantage of the continuing education activities available throughout the state. In fact, more citizens are participating in such classes than those enrolled in all formal classes, kindergarten through college.

According to the state department of education, the public schools throughout Minnesota last year provided general adult programs to over 305,000 students.

The University of Minnesota Agricultural Extension Service reported that over 1,400,000 Minnesotans participated in extension programs last year--in such areas as home economics and family living, 4-H and youth development, agriculture production, public affairs, and staff development.

The opportunity exists for many more adults to continue their education.

Patrick Borich, president of the Minnesota Association of Continuing Adult Education --the group organizing Adult Education Week--urged everyone to investigate the educational opportunities available at their local high schools, vocational schools, extension offices, churches and other organizations.

"Personal growth knows no boundaries. The only limits are those you place on yourself," Borich said. "Continuing education participants are continual learners."

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FIRST FORAGE  
SYMPOSIUM SET  
FOR MARCH 29-30

"Get Moving With Forages" is the theme for the first Forage Symposium to be held March 29-30 at the Radisson South Hotel, Bloomington, Minn.

Sponsoring the symposium are the University of Minnesota Agricultural Extension Service and the Minnesota Forage and Grassland Council.

A proven no-tillage pasture renovation method will be discussed by Donald Meyers, Ohio State University. Meyers has a 10-step method for introducing improved forage species into unproductive, weedy grass pastures. The Ohio project has demonstrated double or triple pasture yields on hundreds of beef and dairy farms throughout their state. New seeding equipment and new chemicals for renovation should be of interest to Minnesota cattlemen, producers, dealers and educators.

Dwayne Rohweder, forage extension agronomist, University of Wisconsin, will discuss new management skills needed to establish and maintain stands of alfalfa and alfalfa-grass mixtures. At current Minnesota hay prices, obtaining five tons per acre of alfalfa hay per year from one stand for four years is more economical than 120 bushels per acre of corn grain. Sixty-nine percent of Minnesota's hay acreage in 1975 was in alfalfa or alfalfa-grass mixtures.

The past president of the American Forage and Grassland Council, Wally Moline, will discuss the future horizons for forages. Moline's experiences this past year as president of the American Forage and Grassland Council gives him a national perspective on forage production. Moline, forage extension agronomist in Nebraska, has witnessed dramatic changes in the forage production and use in Nebraska over the past several years.

-more-

add 1--first forage symposium

Other topics discussed at the symposium will be "Setting the Soil Stage--Soil Testing, Fertilizing, and Drainage" by Robert Munson, Potash Institute, and Curtis Overdahl, extension soil scientist, University of Minnesota. Paul Hasbargen, extension farm management specialist, University of Minnesota, will discuss "Choosing a Profitable Forage Program for the Beef Producers," and Ben Zweber, Elko, Minn. will discuss the forage program on his dairy farm. Al Schmid, University of Minnesota agronomist will also discuss pasture renovation opportunities in Minnesota.

Deputy Vice President William F. Hueg, Jr. for agriculture, forestry and home economics at the University of Minnesota, will keynote a luncheon on March 30, discussing "Forage and Food for All."

Register by March 22 with the Office of Special Programs, 405 Coffey Hall, University of Minnesota, St. Paul, Minn. 55108.

-daz-

CA,IA,FIELD CROPS

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ADDING FLUORIDE  
TO HOME WATER

Agricultural engineers at the University of Minnesota are receiving inquiries from individuals wanting information on fluoridation of their private water supplies.

There is no simple way to fluoridate a home water supply, says Roger E. Machmeier, extension agricultural engineer. The process would have to be the same as for a municipality. A chemical feed pump is needed to inject the proper amounts of fluoride into the water supply.

A very expensive and failsafe system is required when fluoride is added to the water. Fluoride in excess of three parts per million will cause brown spots on the teeth and large doses accidentally added to the drinking water would be poisonous. For these reasons, it is recommended that fluoride not be added to a home water supply; however, it is possible to obtain fluoride in pill or liquid form which may be taken daily by members of the family. Check with your local dentist, doctor or pharmacist for the most convenient method to provide fluoride to your family, says Machmeier.

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4-H NEWS

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YOUTH INVOLVED  
IN COMMUNITIES  
WORKSHOP SET

Two teenagers from \_\_\_\_\_ County are delegates to the State Youth Involved in Communities Workshop April 1-3 at Silver Lake Camp in New Brighton.

Selected for contributions to community betterment are:

(List names, hometowns and accomplishments of delegates).

The workshop is planned to give teenagers a learning experience in how they can become more effective in planning and conducting community improvement activities. Counties are selecting two delegates and two alternates to attend the three-day meeting.

Some of the objectives of the program are to understand how history affects individual and community values and how individual values are negotiated to form community values. The workshop will also focus on how the community development process is used in obtaining community goals.

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LOOK TO GRAPEFRUIT  
FOR A MID-WINTER LIFT

Just when winter-jaded appetites long for a lift from fresh fruit, grapefruit comes to market. Marketing analysts with the U.S. Department of Agriculture report the crop is about 14 percent above last season.

Grapefruit is picked tree ripe so it is ready to eat upon purchase. Look for firm, well-shaped fruits. Thin-skinned fruits have more juice than coarse-skinned ones. If a grapefruit is pointed at the stem end, it will have thick skin. Rough, ridged or wrinkled skin is another indication of thick skin, pulpiness and lack of juice.

Skin defects--scale, scars, thorn scratches or discoloration--seldom affect eating quality. Avoid fruit with such signs of decay as soft and discolored areas on the peel at stem end, water soaked areas, loss of bright color and soft and tender peel that breaks easily with finger pressure.

\* \* \* \*

AMERICANS DISCOVER  
THE JOYS OF YOGURT

Yogurt sales are rising dramatically each year according to data from the Milk Industry Foundation. Although consumption has more than doubled since 1970, the U.S. still has a long way to go to equal the per capita yogurt consumption in some northern European countries.

Residents of The Netherlands, for example, eat nearly 30 pounds of yogurt yearly while we lag far behind with less than a pound a year.

A recent study of U.S. yogurt eaters showed that the majority (74 percent) preferred fruit-flavored varieties, and about 10 percent regularly make their own yogurt at home. Despite health claims made for the bacteria present in yogurt, only about half of the regular yogurt eaters knew about the existence of these bacteria.

\* \* \* \*

-more-

add 1--look to grapefruit

#### ARE YOU EATING LESS?

Americans ate less food last year than they did in 1974--about 1.2 percent less. Tight supplies and higher prices were the reasons, according to a report by the U.S. Department of Agriculture's Economic Research Service.

Americans ate less fats, carbohydrates, thiamin, vitamin B<sub>12</sub> and phosphorus by reducing their consumption of pork, poultry, eggs, lard, vegetable oils and refined sugar.

We gulped more frozen orange juice, however, and maintained our consumption levels for protein. Milk and beef made up the biggest share of the protein in our diets.

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IN BRIEF. . . .

Fertilize Soybeans? Where soil tests are not high, fertilize soybeans directly, University of Minnesota soil scientists advise. In one University experiment at Lamberton where soil phosphorus was low, soybean yields were increased 18 bushels per acre as a result of fertilization. Although this was an above average response, it demonstrates that soybeans will respond to added nutrients if fertility is low. However, when soil tests are above 30 in P and above 200 in K, you're not apt to get a direct soybean response from adding these elements. More information is available in Soils Fact Sheet 26, "Fertilizing Soybeans," available from the \_\_\_\_\_ County Extension Office.

\* \* \* \*

Wheat Storage. With wheat at \$4 per bushel, it costs you about 31 cents a bushel to store it on the farm from September through June. Elevator storage for the same period costs about 38 cents. "So far, storing the 1975 crop has not been profitable," says Willis Anthony, extension economist at the University of Minnesota. "And historically, seasonal storage returns for wheat have not been great," says Anthony, who has compiled charts of Minnesota seasonal wheat prices for the past 20 years.

\* \* \* \*

Switching Crops. Some Minnesota farmers are contemplating switching to wheat or oats in anticipation of another dry year. Some rough calculations show that wheat is apt to be more profitable. For example, 50 bushels of wheat at \$4 per bushel gives you \$200. But 100 bushels of oats per acre will give you only \$150, figuring oats at \$1.50 cents per bushel.

\* \* \* \*

-more-

add 1--in brief

Calf Pneumonia. Dairy calf pneumonia hits you with some hidden costs, as well as calf losses, vet bills and increased labor costs. One problem is decreased future production of a recovered animal. This loss is difficult to measure since there's no data to determine what a particular calf would have produced as an adult cow if she had not suffered calf pneumonia. Calves sick for three to four weeks frequently suffer permanent lung damage. This means you can expect long term production declines. And when calves die, you may also lose superior genetic replacement stock--also hard to accurately measure. University of Minnesota veterinarians say the most important management practices to prevent calf pneumonia are frequent observation and early treatment of sick animals, feeding colostrum early and adequate ventilation of calf barns.

\* \* \* \*

Silage to Sows. Increased feed costs have many hogmen asking about feeding silage to bred sows and gilts. Corn silage can be fed satisfactorily to bred sows and gilts, according to Jerry Hawton, extension swine nutritionist at the University of Minnesota. You may be able to save 20 to 25 percent in feed costs during gestation. Complete information is available in a new publication, Animal Science Fact Sheet No. 31, available from the \_\_\_\_\_ County Extension Office.

\* \* \* \*

Fertilizer. A recurrence of tight world market conditions for fertilizer seems unlikely through 1981, according to the U.S. Department of Agriculture. World production capacity should increase substantially, especially for nitrogen and phosphate. However, these optimistic expectations could be altered if low fertilizer prices cause cancellations of plans for new plants, or if developing countries increase fertilizer consumption faster than expected, or if the developing countries fail to expand their fertilizer production as much as they now predict.

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4-H NEWS

Immediate release

COUNTY 4-H HORSE  
PROJECT TRAINING  
FOR CHAIRPERSONS

A day-long workshop for \_\_\_\_\_ County 4-H horse project  
chairpersons and leaders will be held at 9:30 a.m. April \_\_\_\_\_ at the  
\_\_\_\_\_ in \_\_\_\_\_.  
(place) (town)

The morning session includes a discussion of how the 4-H horse project  
relates to 4-H and how 4-H leaders can arrange and carry out an exciting, fun-  
filled educational program for the year. New educational tools and program  
ideas will also be introduced in the morning.

In the afternoon, leaders will be given an opportunity to share ideas on  
current programs and discuss concerns of horse owners. Future directions of  
the 4-H horse program will conclude the program at 4 p.m.

The day-long training session is expected to give volunteers and professions  
an opportunity to discuss and review the philosophy of the program and to share  
ideas of interesting horse programs and activities around the state.

For more information, contact \_\_\_\_\_ at the \_\_\_\_\_  
County Extension Office

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<u>Date</u>	<u>Town</u>	<u>Meeting Location</u>
April 13	Slayton	Meeting room, Courthouse Annex
April 15	Sleepy Eye	Orchid Inn, Highway 14
April 20	Hibbing	Jury Lounge, Courthouse
April 21	Crookston	Agricultural Research Center Auditorium, UMC Campus
April 22	Fergus Falls	Holiday Inn, Highway 210 and 94
April 23	Anoka	Anoka County Activity Center, 550 Bunker Lake Boulevard
April 27	Rochester	4-H Building, Olmsted County Fair- grounds

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ATT: Extension Home Economists

Immediate release

### HOMEMADE MAPLE SYRUP IS SEASONAL TREAT

If you have access to a stand of maple trees, why not try tapping them and making homemade maple syrup from the sap? This is the season, says Marvin E. Smith, extension forester at the University of Minnesota.

Sugar maples and black maples are used in the commercial production of maple products, but Smith says red and silver maples also produce sap suitable for syrup despite their lower sugar content.

You will need a drill with a 7/16 or 1/2 inch bit, a metal collection spout for each taphole, a collection container (bucket or plastic bag) or tubing line for each taphole, a plastic or metal trash can with plastic liners for sap storage, a large pan and heat source, a large scale thermometer calibrated at least 15 degrees above the boiling point of water and wool or other type filters.

Tapping should be completed early in March in central and southern Minnesota and by the first week in April in the north. The smallest trunk diameter for trees suitable for tapping is eight to ten inches at two to four feet above the ground.

To tap, select a spot on sound wood two to four feet above the ground. Drill a hole about three inches deep. Insert a collection spout and attach a bucket, plastic bag or tubing line. Cover open buckets to keep debris and rain out.

Smith says a single taphole usually produces 10 to 12 gallons of sap in a season, but daily accumulations will vary. Sap should be boiled down as soon as possible, but when the weather is cold and storage conditions are favorable, sap may be kept four or five days without reducing quality.

-more-

add 1--homemade maple syrup is seasonal treat

It takes approximately 40 gallons to produce one gallon of syrup, Smith says. Boil the sap in a large shallow pan, adding more as the level drops through evaporation. Continue this as the sap is concentrated and the boiling point begins to rise above the boiling point of water. Watch the sap carefully to prevent scorching and occasionally skim the surface of the boiling liquid to remove foam and other materials.

The syrup should be filtered while hot (at least 180 degrees F.) through wool or orlon into storage containers. For more detailed information, ask for Forestry Fact Sheet 11, "Homemade Maple Syrup," at your local county extension office or write to the Bulletin Room, 3 Coffey Hall, University of Minnesota, St. Paul, MN 55108.

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STABILIZING BEEF PRICES  
MAY CURTAIL SUBSTITUTES

The beef industry appears vulnerable to invasion by beef substitutes and its best chance of stemming the invasion may be promotion of greater beef price stability, a University of Minnesota agricultural economist says.

"Price stabilization has been advocated before," says John Spriggs, a research assistant in the Department of Agricultural Economics, "but not, to my knowledge, for the purpose of inhibiting development of substitutes."

If history is any guide, the beef industry cannot afford to be complacent. Developments in synthetic rubber, margarine, laundry detergent and rayon can all be traced to periods when their natural product competitors reached peak prices.

The size of the beef market alone makes it attractive to the developers of substitutes. Each year Americans spend \$25 billion--15 percent of their total food expenditures--on beef. And each year the market has been expanding by an average of more than one pound per person. Last year per capita beef consumption was 120 pounds.

When beef prices hit unprecedented highs in 1973, Spriggs says, development and production of substitutes was triggered. Soy extenders were mixed with ground beef and the product was accepted by consumers. Other simulated meats also began to appear.

Early in 1974 beef prices declined and the price of soybeans--an important ingredient in substitutes--rose. As a result, soy-hamburger mixtures disappeared from supermarket meat counters.

-more-

add 1--substitutes

If beef prices should again rise significantly, Spriggs says, more impetus would be given to development of substitutes--especially since he believes the price of the natural product need not be extremely high to promote further development once it has begun.

According to Spriggs, the beef industry has tried to battle substitutes in three ways--advertising the merits of real beef; attacking the nutritional value of substitutes; and insisting on regulations to keep substitutes from being labeled "meat."

But it appears substitutes can be made nutritionally comparable to meat, consumers have proved they are willing to use soy-blended meat products, and relying on advertising alone to fight the battle may be dangerous.

"Some day," Spriggs says, "advancing technology in factory-produced substitutes may yield a product as good if not better than our table beef."

Consequently, he suggests the beef industry should consider ways to promote greater price stability either through the free market or by an administered scheme.

The free market approach involves improving medium-term price forecasts, Spriggs explains. Improved forecasts will allow producers to react better to supply or demand aberrations. "In connection with the forecasts," he adds, "we may want to look at ways of reducing costs to the producers who are trying to respond."

An administered price scheme involves imposing some legal force on the free market. Price is held at a certain level or adjusted only gradually over time in response to long-run supply and demand conditions.

Both approaches have their problems and it is unclear which is better, Spriggs says. The free market approach suffers from the difficulty of making accurate forecasts, while the administered scheme involves a heavy policing cost.

add 2--substitutes

"But," he says, "whatever the approach, in light of experience in other industries, promoting greater price stability is worth considering."

Spriggs' ideas are contained in a technical staff paper published by the University's Department of Agricultural and Applied Economics.

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FOOD STORAGE LOSSES  
CAN BE CONTROLLED

Proper storage can help stretch the food budget by assuring maximum quality and nutrition from the items on our menus.

Elizabeth Sloan from the Department of Food Science and Nutrition at the University of Minnesota says meats, fish and milk have the shortest shelf lives because of bacterial growth that causes spoilage, off odors and slime. Dairy and meat products should be kept as cold as possible.

Fruits and vegetables are subject to a natural breakdown process that results in loss of flavor and nutritional value and makes them susceptible to mold growth. Ms. Sloan advises a low refrigerator temperature and keeping fruits and vegetables in a crisper to prevent wilting. Corn is particularly vulnerable. She says it will lose 75 percent of its sugar after 24 hours at room temperature.

Dried foods are subject to nutrient losses, rancidity and browning. They should be kept well sealed so they don't pick up moisture that can speed deterioration. Shelf life can be lengthened by keeping dried foods cool and out of moist areas such as cabinets near a sink, dishwasher or stove.

Freezing is the best storage method for bread, Ms. Sloan says. Keeping bread in the refrigerator hastens staling. Frozen bread can maintain high quality for two years, she says. If well wrapped to prevent moisture loss (freezer burn), other frozen foods have shelf lives of between nine and 12 months.

Canned foods last longest. They maintain their quality for several years unless the can is damaged or rusted. As with other foods, however, those in cans lose nutrients and quality faster at high temperatures. Canned beans lose 10 percent of their vitamin C after four months at 100 degrees F., but at 70 degrees F. the same loss would take nine months.

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IN BRIEF. . . .

Air Ionization. The negative ionization of atmospheric air in swine buildings to settle out airborne dust particles did not significantly change pig performance in Purdue University trials. This was reported at Purdue's 1975 Swine Day, and involved three trials and 285 pigs. Pigs from two to four weeks of age as well as growing-finishing pigs were studied. This experiment, plus earlier studies at the University of Illinois, indicates that the dust levels ordinarily found in confinement hog houses do not affect pig performance.

\* \* \* \*

Food Prices. Food prices for the first half of 1976 will probably average about six percent above a year earlier levels, according to the U.S. Department of Agriculture. Food prices in the last half of 1976 will be heavily influenced by 1976 weather and crop conditions. Generally large U.S. and world crops and increased output of livestock-related foods would mean a continued slow rise in food prices this summer and fall. But should production be reduced, retail food prices would likely go up--especially in late 1976 and 1977. The USDA report also predicts that per capita food consumption will increase one to two percent this year and that both animal and crop-related food prices are expected to share equally in the gain.

\* \* \* \*

Farmer's Share. The farmer's share of the market basket dollar varies according to food group. The highest percentage is for poultry and eggs, 61 cents; followed by meat products, 56 cents; dairy products, 49 cents; fats and oils, 47 cents; fruits and vegetables, 27 cents; and bakery and cereal products, 25 cents. The overall "market basket" figure is 43 cents.

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EVEN SMALL FARMS  
STUNG BY FEDERAL  
ESTATE TAXES

Fast-rising farmland values may be a boon to the farmer who wants to sell, but they may work hardship on descendants of the farmer who bequeaths his estate to his family.

The reason: U.S. farm real estate values have increased over elevenfold since 1940 while the federal estate tax structure has remained unchanged.

In Minnesota, average farmland value has increased 112 percent in the past three years alone. In some areas of the state land values have tripled. "That has happened in my home area of Traverse and Wilkin counties," says Paul Hasbargen, extension specialist in farm management at the University of Minnesota. "Average-sized farms in that area have gone from \$100,000 to \$300,000 in the past three years."

Yet a state senator recently noted there have been no major changes in Minnesota's inheritance and gift tax laws since 1943.

The problem is that family members inheriting even a relatively small farm may be forced to mortgage the farm or sell part of it to pay federal and state death taxes.

The farmer who needn't have worried about estate taxes in 1942 might have to worry about them in 1976--even if the size of his operation has not changed. That is because the \$60,000 exemption from federal estate taxes authorized in 1942 has not been increased and \$60,000 in 1942 is equivalent to roughly \$200,000 today.

Indeed, the average value of farm assets per farm in the United States has risen from \$51,440 in 1960 to nearly \$170,000 in 1974.

add 1--estates

"I think this is a real problem," says Hasbargen. "Even the farmer who operates a small dairy farm can easily have a \$120,000 estate. And, when the last parent dies, a single heir would have to pay \$9,340 in federal estate taxes plus \$5,126 in state inheritance taxes out of this estate."

"This total of over \$14,000 could be equivalent to two years' net farm income. By contrast, three years ago there would probably have been no death taxes in this case."

The federal tax bite can be substantial. Rates are graduated from 3 to 77 percent and can take 20 to 30 percent of the value of a moderate-sized farm.

Minnesota's inheritance tax is also graduated, but the rates are lower.

Both the federal government and the state levy gift taxes to prevent those who transfer property before they die from avoiding estate taxes. Gift taxes are also subject to exemptions and they are levied at lower rates than estate taxes. The federal gift tax rates, for example, are only three-fourths of the federal estate tax rates.

(Next: proposals for change.)

-bd-

CA, IA

Department of Information  
and Agricultural Journalism  
Agricultural Extension Service  
University of Minnesota  
St. Paul, Minnesota 55108  
Tel. (612) 373-0710  
March 1, 1976

Second in Series

Immediate release

MANY PROPOSALS FOR  
DEATH TAX RELIEF

There has been no lack of proposed legislation to provide death tax relief. Nor has there been a shortage of criticism for most of the proposals.

Most of the proposals concentrate on increasing the exemption and deductions, and/or giving heirs longer to pay the taxes.

For example, the Ford administration has proposed allowing estates worth \$600,000 and less up to 25 years to pay the federal tax, with a subsidized 4 percent interest rate on the unpaid balance. Present law allows a maximum of ten years for payment and makes the executor personally liable for the tax. The Ford proposal would eliminate the liability provision.

Last fall Senators Walter Mondale, Hubert Humphrey and Gaylord Nelson introduced legislation to increase the exemption from \$60,000 to \$150,000, set the interest rate on 10-year installment payments at 4 percent and allow 20 years for payment in hardship cases.

Similar legislation has been proposed in Minnesota. A bill increasing exemptions from the state inheritance tax has received unanimous committee approval in the House. More than a dozen inheritance tax reform bills have been introduced in the House during the past year and others have been introduced in the Senate. The proposals include reforms ranging from simply reducing the tax rates and doubling exemptions to extending the payment period.

Some bills include provisions for valuation of farm estates only as farmland, not as potential commercial property, at least as long as the land is kept in the family and is used for farming.

add 1--reform

Proponents of reform argue that death tax laws are backfiring. Instead of preventing excessive concentrations of wealth, they are increasing concentration by making more property available for purchase by corporate operations.

Critics fear that changes themselves might backfire by making it easier to keep large estates intact. Further, nonfarm interests might be encouraged either directly or indirectly to invest more heavily in agricultural property and absentee ownership might increase.

Proponents argue that farmers are particularly unfairly pinched since rising land values and inflation are beyond their control and their assets are basically illiquid.

Critics say such reasoning is debatable, at least in terms of effects on the individual farmer. The farmer whose estate is growing can always sell and benefit from the increased value, the argument goes; but instead the farmer wants to have the best of both worlds--an increasing estate but no increasing taxes.

One thing appears certain: any reform will have to be across-the-board and not restricted to farmers. Any other approach, University of Minnesota specialists say, would probably be unconstitutional.

(Next: planning ahead)

-bd-

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Tel. (612) 373-0710  
March 8, 1976

Immediate release

MSC  
JATP

ROUTINE WORMING FOR  
DAIRY CATTLE NOT  
RECOMMENDED

Routine worming treatments for Minnesota dairy cattle are not recommended by University of Minnesota specialists.

However, some dairymen may decide to worm "just to be safe" or because their cattle may have been exposed, says Mike Hutjens, dairy specialist at Minnesota. "But we encourage dairymen to consult with a veterinarian and take worm egg counts before worming," he adds.

Across-the-board worming treatments for Minnesota dairy cattle are not recommended for these reasons:

- Most manure is disposed of and this avoids fecal contamination.
- Pasture and grazing is limited.
- Most herds are "closed" (few new cattle brought in).
- Worm egg counts are usually low.

However, Hutjens says these points are not foolproof. If, after consulting your vet and taking worm egg counts you decide to worm, follow directions carefully. Some products can only be given to dry cows. Check labels.

For more information, ask for Dairy Update 16, available from your county extension office.

# # # #

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March 8, 1976

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JSP

NATIONAL AG DAY  
HAILS FARMERS

People throughout the nation are joining to pay tribute to American farmers on Monday, March 22, county extension director \_\_\_\_\_ says.

March 22 is National Agriculture Day, which occurs on the first Monday after the first day of spring each year, \_\_\_\_\_ explains.

The day has not received official recognition like Labor Day, but there are national and state efforts to have it proclaimed in the future.

Most of the emphasis on the day will be in the larger cities. In areas such as ours, \_\_\_\_\_ declares, people know how important agriculture is.

Some of the facts that will be brought out are these:

\* One farmer today produces enough food to feed 51 other people.

\* Output per man hour on the farm is three times as great today as it was 20 years ago.

\* American farmers plow back \$200 billion into the economy each year.

\* American farmers have an investment of nearly \$500 billion dollars in land, buildings, machinery, livestock, bonds, cooperatives and other holdings. That's about three-fifths of the total assets of all U.S. corporations combined.

\* American farmers often produce nearly half of the world's food. Some years they produce 75 percent of all the food imported by countries who couldn't grow enough on their own. Besides helping feed people, these exports give our economy a shot in the arm and help balance our trade in the world market.

-hbs-

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March 8, 1976

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JAS

YARD-GARDEN  
TELEVISION  
SHOW SET

The weekly half-hour television program, "Yard 'n Garden," produced by the University of Minnesota Agricultural Extension Service, starts another season at 8:30 p.m. March 26 on Minnesota educational stations.

Viewers are invited to garden with extension specialists from the University and program hostess Janet Macy of the Agricultural Extension Service. Program topics will deal with gardening concerns appropriate for the week.

"Yard 'n Garden" will be telecast at 8:30 p.m. March 26, April 2 and April 9 on KTCA, Channel 2, Twin Cities; WDSE, Channel 8, Duluth; and KWCM, Channel 10, Appleton.

On April 15, the program will move to 7:30 p.m. Thursdays through the remainder of the gardening season.

"Yard 'n Garden" will also be shown on WTCN, Channel 11, Twin Cities, starting March 27 at 7:30 a.m., KEYC-TV, Channel 12, Mankato, starting March 27 (check program listing for time); and KAAL-TV, Channel 6, Austin, starting May 9 at 11:30 a.m.

-daz-

CA, HORT

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March 8, 1976

Immediate release

MSC  
7A07P

IN BRIEF. . . .

Beet Pulp. If dairymen can purchase dry beet pulp for 75 to 80 percent of the price of shelled corn, it's an economical alternative. "Although beet pulp has 20 percent fiber, it is highly digestible--75 percent compared to 45 percent for ordinary hay," says Mike Hutjens, extension dairyman at the University of Minnesota. For dairy cows, beet pulp should be limited to one-third of the grain mixture for best results. Higher levels will lower feed value. Beet pulp improves the texture of heavy, high energy grain rations. It is bulky and palatable. More information is available in Dairy Update 21, available from the \_\_\_\_\_ County Extension Office.

\* \* \* \*

Weaning Pigs. There seems to be no "best" time to wean pigs. In an Iowa study, littermate pigs weaned at two, three or four weeks of age all weighed the same by six weeks. However, the older pigs lost less weight at weaning. They also ate more feed and had higher weight gains after weaning. So the older the pigs were at weaning, the more readily they adapted to their new environment. When you wean younger, lighter pigs, their environment becomes more critical.

\* \* \* \*

Short Course. Technical knowledge needed to carry out duties and responsibilities will be provided to township officers at a short course in March and April. Offered through the Minnesota Agricultural Extension Service, the Township Officers Short Course will be March 22 in Waseca, March 23 in Rochester, March 24 in Willmar, March 25 in Marshall, March 26 in St. Cloud, April 5 in Brainerd, April 6 in Fergus Falls, April 7 in Detroit Lakes, April 8 in Thief River Falls and April 9 in Grand Rapids.

# # # #

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March 8, 1976

ATT: Extension Home Economists

Immediate release

First in Series

MSC  
9A27P

PAUSE AT TAX TIME  
TO REVIEW FINANCES

This is an ideal time to review your family financial situation says Edna Jordahl, extension home management specialist at the University of Minnesota. She advises using some of the remaining "indoor" time this season to take your family members through a financial analysis. The tax deadline, the beginning of a new year and the pre-spring lull should provide the encouragement you need, she says.

Mrs. Jordahl suggests five steps in a financial analysis.

\* What was last year's total family income? Note take-home pay.

\* What is your present net worth? Deduct all that you owe from the dollar value of what you own.

\* What were your fixed expenditures (mortgage payments, installment purchases, insurance, utilities, etc.) last year?

\* What were your flexible expenses (food, clothing, recreation, etc.) last year?

\* What is your balance between income and expenses? Is it a plus or minus?

If the final step turns up a plus, Mrs. Jordahl suggests deciding what you will do with this amount? It may be a useful sum to put toward a unique expenditure or investment for your family.

If your analysis results in a minus, look for financial problems, ways to increase your income or services to the family or ways to cut expenses, Mrs. Jordahl says.

To increase family income, look at ways to improve the wage earner's situation or encourage other family members to earn. Even a creative hobby may have potential as a moneymaker.

-more-

add 1--pause at tax time

Can some expenses be cut or eliminated without lowering the standard of living, Mrs. Jordahl asks? Can better buying habits be used? Could you care for and maintain possessions to make them last longer? Are lower cost substitutes available for some expenses?

After going through this analysis, you may decide to prepare a family budget for the current year. Don't worry that 1976 is several months old already, Mrs. Jordahl says. Your family's fiscal year can begin anytime or you can experiment for part of the year.

-dmn-

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Next: Recognize Financial Problems

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March 8, 1976

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Second in Series

MSC

ZAB/P

RECOGNIZING FINANCIAL PROBLEMS  
HELPS AVERT DISASTER

Families at all income levels experience financial problems says Edna Jordahl, extension home management specialist at the University of Minnesota. The important thing is to learn to plan, control and evaluate expenditures so that a troublesome situation doesn't become a disaster.

Mrs. Jordahl suggests looking for these clues to financial problems within your family.

- \* Are there frequent quarrels about money matters?
- \* Are you constantly short of money before the next paycheck arrives?
- \* Do you forget about the cost of credit and what it does to the cost of things you purchase?
- \* Do you hide expenditures from other family members?
- \* Do your credit purchases (besides your house) amount to more than 15 percent of your family income? For a family with a \$12,000 income, that's \$1,800.
- \* Do you borrow from your savings account?
- \* Do you find a consolidation of debts into one larger loan is necessary?
- \* Are you dissatisfied with your financial progress from year to year?

If you answered "yes" to a number of these questions, Mrs. Jordahl suggests seeking financial counseling before your situation worsens. The solution may lie in as simple a thing as improved communications among family members.

To get a grip on their financial situations, Mrs. Jordahl says family members should know their incomes and how that money is spent.

-dmn-

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Next: Budgeting Requires Organization

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March 8, 1976

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Last in Series

MSC  
JASJP

SUCCESSFUL BUDGETING  
REQUIRES ORGANIZATION

"A family budget? I've tried that before!" Have you ever said that to yourself or heard someone else lamenting about financial affairs?

Edna Jordahl, extension home management specialist at the University of Minnesota, offers these tips on budgeting:

- \* Review your financial situation with family members.
- \* Discuss individual and family goals and wishes. What's in it for each member?
- \* Enlist the cooperation of all family members in keeping track of ALL expenditures.
- \* Get a volunteer for the job of family bookkeeper.
- \* Adopt a simple record system and have a place for it. An income column and a few expense columns may be sufficient. A convenient drawer can serve as the "center."
- \* Review your financial progress periodically. Add the columns in your record book every month, quarter or whatever period is right for you.
- \* Counsel the "spenders" to help them improve buying habits. Where has your family over-spent? Is there a reason?
- \* Encourage family members to evaluate their personal expenditures. Could each have improved?
- \* Note the cost of credit. What is the annual percentage rate? What is the dollar cost? Is there a less expensive credit source available?
- \* Review your budget at the end of the year and make plans for improvement in the coming year.

Mrs. Jordahl suggests that budgeting can begin at any time. A family fiscal year can begin at any point on the calendar. Or you can experiment for part of a year. Your budgeting attempt may help all family members to see where the money goes.

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March 8, 1976

4-H NEWS

Immediate release

MSC  
7A27P

HORSEMEN'S  
SPRING CLINIC  
SET APRIL 3

4-H horse project members and other interested persons are invited to register for the Annual Spring Clinic for Horsemen April 3 on the University of Minnesota's St. Paul Campus.

Register through the Office of Special Programs, University of Minnesota, St. Paul 55108.

Some of the morning topics on the program include: Conditioning a horse for trail riding and respiratory infections. The afternoon program includes the presentation of the Horseman of the Year Award.

Afternoon program topics include: Infectious horse diseases; group demonstrations on dressing the horse and rider, protective leg wrapping, hoof care and conditioning; and small group demonstrations.

-daz-

CA, YOUTH

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March 8, 1976

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Immediate release

A CARROT A DAY  
SUPPLIES YOUR VITAMIN A

A carrot a day (about 5½ inches long and one inch thick) will supply your vitamin A requirement for one day, says Mary Darling, extension nutritionist at the University of Minnesota. What could be easier? And, it has about 20 calories--good news for those watching pounds and inches.

Vitamin A is one of the vitamins that you can see. Whenever any food is yellow-orange, it contains vitamin A. The darker the color the more vitamin A. Sometimes the yellow-orange color is camouflaged by chlorophyll, and so the deep-green vegetables also have a good supply of vitamin A: spinach, broccoli, asparagus, and dark green lettuce. And, the red color of the tomato also covers up the yellow-orange color of the vitamin A carotene.

It is fortunate for us that an excess of vitamin A can be stored in the liver, continues Ms. Darling. If you don't get your vitamin A for a day or two, your body gets its supply from the liver. In fact, up to a year's supply can be stored. This also means that if you use vitamin A supplements, the extra vitamin A will be stored. This can result in toxicity.

Vitamin A is closely related to the formation and maintenance of skin, linings, hormones, cartilage in bones and to the chemistry of vision.

-more-

add 1--a carrot a day

The following are vitamin A rich foods, with the foods listed first containing the most vitamin A and going down to foods with the least, but still good sources: liver, deep-yellow carrots, sweet potatoes, spinach, mustard greens, collards, swiss chard, kale, pumpkin, cantaloupe, apricots, broccoli, tomatoes, peaches, egg yolks, asparagus, vanilla ice cream and milk.

With the wide variety of foods containing vitamin A, no one should be short on this important vitamin, advises Ms. Darling.

Have you had your carrot today?

-1sn-

Part I of II

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March 9, 1976

Last in Series

ADVANCE PLANNING  
REDUCES DEATH TAXES

Even without death tax reform, farmers can reduce their tax obligations by prior planning and careful estate management.

"Indeed," says Paul Hasbargen, extension economist in farm management at the University of Minnesota, "it is the uninformed farmer who really gets hurt."

Death taxes may have greater impact on farm estates because so many of them are operated as single proprietorships or partnerships. Yet death tax obligations can be reduced by sharing ownership among family members to avoid concentration in one estate.

Such sharing can be accomplished by corporate organization or joint deeds in common.

Careful use of wills, trust arrangements and life insurance can also help the farmer, as can wise use of property transfers before death.

"The important thing is to consider the problem now," Hasbargen says. "Too often the problem isn't realized until it is too late."

More information on the topic of death and taxes as it relates to agriculture can be found in North Central Regional Extension Publication 40, "Death and Taxes." Copies are available at county extension offices and from the Bulletin Room, Coffey Hall, University of Minnesota, St. Paul, Minnesota 55108.

-bd-

PII-P

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Tel. (612) 373-0710  
March 9, 1976

STABILIZING BEEF PRICES  
MAY CURTAIL SUBSTITUTES

The beef industry appears vulnerable to invasion by beef substitutes and its best chance of stemming the invasion may be promotion of greater beef price stability, a University of Minnesota agricultural economist says.

"Price stabilization has been advocated before," says John Spriggs, a research assistant in the Department of Agricultural Economics, "but not, to my knowledge, for the purpose of inhibiting development of substitutes."

If history is any guide, the beef industry cannot afford to be complacent. Developments in synthetic rubber, margarine, laundry detergent and rayon can all be traced to periods when their natural product competitors reached peak prices.

The size of the beef market alone makes it attractive to the developers of substitutes. Each year Americans spend \$25 billion--15 percent of their total food expenditures--on beef. And each year the market has been expanding by an average of more than one pound per person. Last year per capita beef consumption was 120 pounds.

When beef prices hit unprecedented highs in 1973, Spriggs says, development and production of substitutes was triggered. Soy extenders were mixed with ground beef and the product was accepted by consumers. Other simulated meats also began to appear.

Early in 1974 beef prices declined and the price of soybeans--an important ingredient in substitutes--rose. As a result, soy-hamburger mixtures disappeared from supermarket meat counters.

add 1--substitutes

If beef prices should again rise significantly, Spriggs says, more impetus would be given to development of substitutes--especially since he believes the price of the natural product need not be extremely high to promote further development once it has begun.

According to Spriggs, the beef industry has tried to battle substitutes in three ways--advertising the merits of real beef; attacking the nutritional value of substitutes; and insisting on regulations to keep substitutes from being labeled "meat."

But it appears substitutes can be made nutritionally comparable to meat, consumers have proved they are willing to use soy-blended meat products, and relying on advertising alone to fight the battle may be dangerous.

"Some day," Spriggs says, "advancing technology in factory-produced substitutes may yield a product as good if not better than our table beef."

Consequently, he suggests the beef industry should consider ways to promote greater price stability either through the free market or by an administered scheme.

The free market approach involves improving medium-term price forecasts, Spriggs explains. Improved forecasts will allow producers to react better to supply or demand aberrations. "In connection with the forecasts," he adds, "we may want to look at ways of reducing costs to the producers who are trying to respond."

An administered price scheme involves imposing some legal force on the free market. Price is held at a certain level or adjusted only gradually over time in response to long-run supply and demand conditions.

Both approaches have their problems and it is unclear which is better, Spriggs says. The free market approach suffers from the difficulty of making accurate forecasts, while the administered scheme involves a heavy policing cost.

add 2--substitutes

"But," he says, "whatever the approach, in light of experience in other industries, promoting greater price stability is worth considering."

Spriggs' ideas are contained in a technical staff paper published by the University's Department of Agricultural and Applied Economics.

-bd-

PII-P

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March 15, 1976

Immediate release

RBC  
J. L. T.

TOWNSHIP OFFICERS  
SHORT COURSES SET  
FOR MARCH, APRIL

Minnesota's township officers are being invited to day-long courses to be held by the University of Minnesota and Minnesota Association of Township Officers in March and April.

The program will start at 9:30 a.m. \_\_\_\_\_ at the \_\_\_\_\_  
(date) (place)  
in \_\_\_\_\_. There will be registration and refreshments beginning at  
(town)  
8:30 a.m.

Township supervisors, clerks, treasurers and others interested in township government are expected to attend.

Among the topics to be covered are duties and responsibilities of the town board and its officers, legislation, financing township government and land use planning. Discussion groups on a variety of topics affecting townships will be held in the afternoon.

LOCATIONS: and Dates:

Waseca, University of Minnesota Technical College--March 22  
Rochester, Holiday Inn South--March 23  
Willmar, Willmar Community College--March 24  
Marshall, Southwest State University--March 25  
St. Cloud, St. John's University--March 26  
Brainerd, Moose Lodge--April 5  
Fergus Falls, Holiday Inn--April 6  
Detroit Lakes, Area Vocational Technical Institute--April 7  
Thief River Falls, City Auditorium--April 8  
Grand Rapids, Rainbow Inn--April 9

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ARC  
2-11-76

SPRING SOIL  
SAMPLING TIME

Farmers who didn't complete their soil testing last fall should do so this spring, a University of Minnesota soil scientist says.

John Grava, head of the University's soil testing laboratory, says samples can be collected as soon as soil is dry enough to walk on. The laboratory takes only five to seven days to process samples and mail out fertilizer recommendations. There is a small fee.

Although fertilizer prices are expected to be 25 to 30 percent lower this spring than last, they will still be much higher than the extremely low prices four years ago. Consequently, Grava says, a soil test can still save a lot of unnecessary fertilizer expense.

The University's fertilizer rate recommendations have recently been revised on the basis of anticipated prices and because of new research, he says.

Farmers can gather soil samples themselves by obtaining instructions and sample boxes from county extension offices or from the University laboratory (Tel. (612) 373-1060). Samples can be mailed by parcel post or delivered in person.

Testing services are also provided by several private laboratories in the state.

-bd-

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March 15, 1976

Immediate release

IN BRIEF. . . .

Soil Test. A simple, inexpensive soil test can help homeowners and gardeners avoid waste and pollution resulting from unnecessary lawn and garden fertilizing, a University of Minnesota soil scientist says. Soil tests conducted by the University's soil testing laboratory are a reliable way of measuring soil fertility and determining plant nutrient requirements, according to John Grava, laboratory director. Homeowners can collect samples themselves, although sampling should not be done until soil is dry enough to walk on.

Instructions and sample containers can be obtained from county extension offices or from the University Laboratory (Tel. (612) 373-1060). Samples can be mailed by parcel post or delivered in person. Samples are processed and recommendations mailed out in five to seven days. Homeowners can also receive free extension publications on gardening and lawn care merely by requesting them on the soil test instruction form.

\* \* \* \*

Sow Herds. Select and keep high producing females in the sow herd. Your ratio of sows and gilts should favor sows as much as possible. Sows normally ovulate more eggs and farrow larger litters than gilts. They're easier to work with if their weight is kept down and have higher conception rates. Sows also are more resistant to stress and problem organisms in swine facilities. However, you need to bring in enough gilts to make sure farrowing stalls are kept filled.

\* \* \* \*

Mastitis Test. A monthly California Mastitis Test (CMT) program is an excellent tool to prevent and control mastitis, University of Minnesota specialists say. For best results, test a bucket sample from each cow monthly and tabulate the results on a master sheet or on the individual cow page in the DHIA book. More complete information is available in a new publication, "CMT, Your Tool For Detecting Subclinical Mastitis." It's available from the \_\_\_\_\_ County Extension Office.

CA

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March 15, 1976

ATT: Extension Home Economists

Immediate release

MISC  
7/19/76

### SELECTING AN EASTER HAM

Buying an Easter ham? Then you ought to be aware of the many different types of hams available and how to go about selecting a good one.

Ham is the cured and smoked hind leg of the pork carcass, says Richard Epley, extension specialist in meats at the University of Minnesota. Uncured "ham" is labelled "Pork Leg (fresh ham)."

Cured ham is labelled "Smoked Ham" and is either commercially cured or country cured. Country cured ham is much saltier and has more of an aged flavor than the typical commercially cured ham.

There is canned and noncanned ham, bone-in and boneless ham, regular and water-added ham, and perishable and nonperishable ham. Ham is also sold as "half" and "portions."

According to Epley, water-added or moist hams are those which retain some of the water of the curing brine used to distribute the curing solution uniformly throughout the meat.

State regulations require that hams which gain 1 to 10 percent of their weight by added water must be labelled "moist" or "water-added."

Perishable hams must be refrigerated at all times; nonperishable hams have been sterilized and do not require refrigeration.

Hams simply cut in half will yield what is labelled as "shank half" and "rump half." Ham with one or more center slices removed for separate sale will be labelled either "shank portion" or "rump portion."

-more-

add 1--selecting an easter ham

When selecting a noncanned ham, Epley advises, choose one with a modest amount of marbling (for good flavor and juiciness) and a bright pink color.

Keep in mind that a well-trimmed, noncanned boneless ham will yield about three servings per pound while a bone-in, fat ham will yield only about one serving per pound.

-dmn-

CA

MSC  
GAST

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EXPERIMENTAL ENERGY HOUSE  
OPEN FOR TOURS

Ouroboros South, the experimental energy house built by students from the University of Minnesota, will be open for public tours beginning March 20. It is located at the University's Rosemount Research Center.

The one-hour tours will be given by appointment on Saturday, Sunday and Monday afternoons between 1 and 5 p.m. Those interested in taking the tour, which costs \$1.50 for those over 12 years old, should write to Ouroboros South, 320 Wesbrook Hall, University of Minnesota, Minneapolis 55455 to request a date and time. The Agricultural Extension Service and Continuing Education and Extension sponsor the tours.

Ouroboros South uses energy conserving designs such as a sod roof, semi-underground construction and a low profile to the weather. Solar panels collect heat for the house and a wind generator system is being constructed to supply electricity. An aerobic waste digester is used to treat sewage.

-dmn-

CA

Department of Information  
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Agricultural Extension Service  
University of Minnesota  
St. Paul, Minnesota 55108  
Tel. (612) 373-0710  
March 15, 1976

4-H NEWS

Immediate release

COUNCIL TO UNIFY  
4-H FOUNDATION,  
4-H SERVICE COMMITTEE

Early this year 4-H history was made with the establishment of a National 4-H Council. The council, a non-profit educational corporation, unifies the functions of the National 4-H Foundation, Washington, D.C., and the National 4-H Service Committee, Chicago, Ill.

The council's board is composed of twenty business, education, and government representatives.

Minnesotans played significant roles in the establishment and operation of the foundation and service committee and helped bring about the unification.

The council's chief executive officer is Norman Mindrum, a former Minnesota extension agent and state staff member. He was executive director of the National 4-H Service Committee for several years.

Edward Aiton, who has the same 4-H background in Minnesota, was a founder and the first executive director of the foundation.

Susanne Fisher, University of Minnesota State 4-H staff, is a member of the foundation board of trustees. Former foundation board members include Minnesotans Leonard Harkness, State 4-H program director, and Dean McNeal, group vice president, Pillsbury Co., Minneapolis. McNeal was the first businessman to serve as chairman of the foundation's board.

Among the Minnesota companies and organizations making significant contributions to the national support of 4-H programs are: Burlington Northern, Inc., Cargill Foundation, First National Bank of St. Paul, Gainey Foundation, Green Giant Foundation, Northrup King and Co., Pillsbury Company Foundation and Lutheran Brotherhood. Bankers of Minnesota have led all state bank groups for the past several years in their support of the National 4-H Foundation.

-more-

add 1--council to unify 4-H foundation

The Service Committee, established in 1921, and the foundation incorporated in 1948, have provided a broad range of programs and services designed to complement the 4-H youth program conducted by the Cooperative Extension Service.

An immediate result of the unification will be to strengthen the role of the private sector as an effective partner in the overall 4-H program, according to Omer G. Voss, chairman of the council's board and executive vice president, International Harvester Co. "The Council will increase fund-raising efficiency," Voss said. "Unifying private resource development and services to extension will provide greater enrichment of 4-H educational programs."

The combined 1976 budgets of the two component organizations will total \$7.4 million under the auspices of National 4-H Council. Funds from businesses, foundations and individuals supplement public support of 4-H by making possible many program enrichments.

-daz-

CA, YOUTH

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March 22, 1976

4-H NEWS

Immediate release

MSC  
7/18/76

COLLEGIATE 4-H  
MEET SET FOR  
APRIL 8-11

Minnesota collegiate 4-H club members are invited to the third National collegiate 4-H Conference April 8-11 at Columbia, Mo.

About 25 members from the Twin Cities Campus and about 10 members from the Waseca Campus are planning on attending the meeting which will focus on the future.

Delegates will be involved in a "Consensus '76" workshop to discuss long range goals for National Collegiate 4-H. A "Century Three" workshop will deal with future programming and goals of 4-H. Rutgers University delegates will lead a discussion on urban 4-H.

Minnesota 4-H delegates will discuss "tempting teens" and Pennsylvania State University delegates will lead discussion on the four H's of the future.

-daz-

CA, youth

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Tel. (612) 373-0710  
March 22, 1976

ATT: Extension Home Economists

Immediate release

MSC  
gdp  
p

HOME MEAT CURING  
SAFE IF DONE PROPERLY

Home meat curing can yield a safe, appetizing product if you're careful to use the proper amount of nitrate (saltpeter) and/or nitrite, says Richard Epley, extension meats specialist at the University of Minnesota.

But he cautions that if you aren't willing to spend time figuring nitrite levels in your finished product, you shouldn't attempt to cure meat at home. Nitrite levels shouldn't exceed one-fourth ounce per 100 pounds of chopped meat.

Several sausage recipes currently circulating in the state call for meat curing salt (containing 0.5 percent nitrate and 0.5 percent nitrite) at the level of two tablespoons of the salt to two pounds of meat. This is twice the level of nitrite permitted by the U.S. Department of Agriculture in the commercial production of salami, Epley says.

While nitrite can be lethal, Epley says a 154 pound adult would have to eat more than 18 pounds of properly cured beef salami at one time to obtain such a dose. Sausage made with recipes using twice the nitrite level would deliver a lethal dose in about nine pounds of the cured meat.

"The possibility of getting a lethal dose of nitrite from these home-cured meat products is essentially non-existent because no one could eat more than nine pounds of salami at once," Epley says. "And even if some one could, the salt in the product probably would be toxic before the nitrite would."

He says the biggest hazard in using nitrates and nitrites is misuse of them in pure form. He cites cases of methemoglobinemia, a condition where the hemoglobin loses its ability to carry oxygen, resulting from mistakenly sprinkling nitrite rather than a flavoring agent on food.

-more-

add 1--home meat curing

"Clearly label and properly store nitrate and nitrite just as you would medicine," Epley advises. "An even better policy would be not to buy pure forms of nitrate and nitrite. Premixed forms containing salt and other spices are safer."

Despite potential hazards from misuse, Epley says nitrite is very important to meat curing. It insures against the development of botulinal toxin in vacuum packed meats that are stored at improper temperatures. It also gives a characteristic cured meat flavor and color, retards rancidity and inhibits the development of undesirable flavors.

Epley discounts news accounts warning of the dangers of nitrosamines in home cured meats. These cancer-causing agents formed when nitrate combines with amines in meat have been detected only in crisply-cooked bacon and country ham, he says. To date, nitrosamine testing has been done only on laboratory animals and Epley says it is not known if present levels can be linked to human cancer.

He advises those considering curing meat at home to consult their county extension agents if assistance is needed in calculating nitrite levels. Two Animal Science Fact Sheets, No. 25 "Processing Meat in the Home" and No. 29 "Nitrite in Meat," also contain pertinent information. They are available from local county extension offices or by writing to the Bulletin Room, 3 Coffey Hall, University of Minnesota, St. Paul 55108.

-dmn-

CA,IA,L

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March 22, 1976

Immediate release

1750  
9/10/76

MAKING GAS ON  
THE FARM NOT  
ALL THAT EASY

It's not easy to make farm biogas systems work, a University of Minnesota agricultural engineer says.

"Many people have become interested in making biogas from farm wastes since the cost of energy has gone up," says Philip R. Goodrich, "but it takes a large capital investment to start making biogas. Most farmers would not be willing to invest this capital and then spend several hours each day running the biological digester," he says.

When animal manures and crop residues decay in the absence of oxygen you get a biogas. This biogas contains methane (pipeline natural gas is about 80 percent methane).

"The biogas is generated by a biological system that is very fussy," says Goodrich. Although anaerobic digestion is a very old process, it is not well understood.

"And it's very difficult to use biogas as a substitute for gasoline or diesel fuel in tractors. Methane or biogas can't be liquified easily. It takes about one-half of the generated energy to compress the gas to a liquid.

"Then you have heavy steel tanks to haul around and you'd probably have to refuel every hour. It's not practical," he says.

However, some farmers may be able to fit digesters into large waste management systems where they have to store large amounts of waste. They could heat and run the digester on the gas they generate. The excess could be used to generate electricity to run farm fans and motors that are going all the time.

-more-

add 1--making gas

"This would be a waste management system that conserves the nitrogen and stores the waste to be recycled onto the land. As a by-product some energy would be generated to supplement purchased electricity and heating fuel," Goodrich says.

"We need more research before biogas will be useful for Minnesota farmers. The cost of farm generated biogas is still about twice the cost of purchased propane and it's hard to make the systems work," he concludes.

# # # #

CA, IA

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March 22, 1976

Immediate release

MSU  
9/12/76  
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IN BRIEF. . . .

Mastitis Test. Using the California Mastitis Test (CMT) regularly can help dairymen detect subclinical mastitis cases. Subclinical mastitis causes substantial production losses, University of Minnesota specialists say. A new University of Minnesota publication offers guidelines on using the CMT test. Ask your county extension office for a copy of "CMT, Your Tool For Detecting Subclinical Mastitis."

\* \* \* \*

High Moisture Corn. Gains were the same when pigs were fed dry corn or either of two kinds of acid-treated, high moisture corn in a Purdue experiment. And specialists say there should be greater interest in storing and feeding high moisture corn as the cost of energy for drying goes up. There's an additional advantage in the speed at which it can be put into storage, compared to drying.

One advantage of the acid treatment is that such corn will keep better after it is taken out of storage, compared to corn stored in air-tight structures. On the other hand, air-tight storage does not have the potential corrosion problems that acid-treated corn may present. Furthermore, an investment in a structure is fixed at the purchase cost, while the cost of acid undoubtedly will rise if energy costs go up.

To get the most value from feeding high moisture corn to pigs, it must be fed in complete mixed rations. When fed this way, it's equal to or possibly slightly better than dried corn.

\* \* \* \*

Setting Out Seedlings. Vegetable seedlings should be gradually hardened before planting in the open garden. Withhold water and lower the temperature to toughen plants.

# # # #

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March 22, 1976

Immediate release

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BSP*

BROWN MIDRIB,  
WAXY CORN IN  
DAIRY RATIONS

Brown midrib corn silage in the dairy ration shows some advantages in milk production over normal corn silage, according to University of Minnesota research.

"Brown midrib silage shows potential for improved silage quality. But unfortunately, yield for the brown midrib silage was lower per acre," says Dennis G. Johnson, dairy scientist at Minnesota's West Central Experiment Station, Morris. "Yields for brown midrib silage should be equal to normal corn silage before it's widely adopted by dairymen," he advises.

Brown midrib corn is a genetic mutant that has reduced or altered lignin levels in stalks and leaves, compared to normal corn. Since lignin is poorly digested, brown midrib plants should be digested easier than normal corn.

In the Minnesota trial, cows fed the ration containing brown midrib corn produced more milk, but this was offset by a lower fat test. When milk production was adjusted for a standard test, it was equal for both rations. Weight gain favored brown midrib corn; feed consumption and solids-non-fat were the same for the two rations.

Both corn silages had equal amounts of dry matter, crude protein, and crude fiber. However, the brown-midrib silage has less lignin.

In another trial, waxy corn grain proved equal to, but no better than normal corn grain. "Some research with meat animals has suggested improved gain and efficiency of gain from waxy corn. However, we didn't expect a difference in dairy cattle feeding programs since a relatively small difference in digestibility of the grain ration won't provide many extra nutrients for milk production," says Johnson. Chief reason, of course, is that a large portion of the ration comes from forage.

add 1--brown midrib

With the waxy corn trial, there were no "substantial differences" in milk production, weight change, feed intake, fat test or solids-non-fat test.

Reason for the research trials, explained Johnson, is that genetic variants such as waxy and brown-midrib corn are sometimes marketed as improvements over standard corn. Other examples of genetic variations in corn include Floury or Opaque, high lysine and tryptophan corn; and sterile, high sugar corn for silage.

# # # #

CA, IA, D

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March 22, 1976

Immediate release

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1750  
J. H. H. P.

MARCH SAFETY:  
PESTICIDES

If you did not do it last fall, plan to clean out much of the old pesticides from past garden seasons, says Phil Harein, University of Minnesota extension entomologist.

If it is a liquid preparation, throw it out after two years. Dusts and granules that have not been opened and have been kept in cool dry places are good for up to five years. After that length of time, dispose of them also.

Follow proper procedures in disposing of old, unwanted pesticides. Wrap and tie them together in several layers of newspaper, then deposit them in the garbage. Do NOT flush them down the sewage system.

Determine before the garden season starts the amounts and types of chemicals you will need to combat the type of pests you can expect. If you do this, you can purchase the amount needed for the summer. If you use a pesticide that is not labeled for the particular application you have made, then plow under that crop, Harein says.

For more information on pesticides, get a copy of Extension Pamphlet 184, "Home Fruit Spray Guide," and Entomology Fact Sheet 11, "Controlling Insects In The Home Garden," from the \_\_\_\_\_ County Extension Office or the Bulletin Room, University of Minnesota, St. Paul 55108.

-daz-

CA, HORT.



add 1--special short course schedule

- April 5-9 Township Officers Short Course, Moose Lodge, Brainerd, April 5; Holiday Inn, Fergus Falls, April 6; Area Vocational Technical Institute, Detroit Lakes, April 7; City Auditorium, Thief River Falls, April 8; Rainbow Inn, Grand Rapids, April 9. To help officers understand their roles and responsibilities and provide them with technical knowledge and updated reference materials for the township officers handbook.\*GW
- April 5-9 Fundamentals of Ice Cream Manufacture, Department of Food Science & Nutrition, St. Paul Campus. The purpose is to provide a five-day ice cream technology short course for production personnel and ice cream manufacturers. The course is intended for production personnel and ice cream manufacturers.\*GW
- April 6-7 Garden Store Employees Workshop, Classroom Office Building, Room 35, St. Paul Campus. Updated horticultural information and current business trends and problems. For nurserymen, florists and store operators.\*RM
- April 8 Dutch Elm Disease--Oak Wilt Tree Inspectors Short Course, North Star Ballroom, Student Center, St. Paul Campus. To inform municipal tree inspectors of the latest information for controlling these diseases.\*RM
- April 8 Nature Photography Workshop, North Star Ballroom, St. Paul Campus. Photographing natural subjects, new developments in equipment and appreciation of the world around us.\*PS
- April 10 Upper Midwest Trout Symposium, North Star Ballroom, St. Paul Campus. For concerned trout anglers and resource managers. To discuss problems relating to research and management programs for trout and trout habitat in the Upper Midwest.\*PS
- April 22-23 Electron Microscopy, North Star Ballroom, for anyone interested in using the electron microscope.\*RM
- April 25-27 Minnesota FFA Convention and Leadership Conference, St. Paul Campus. To promote a learning experience for vocational agriculture students and FFA members.\*CN
- May 1 Wildlife and Land Use Symposium, B45 Classroom Office Building, St. Paul Campus. For wildlife managers and biologists, planners, land owners, educators, sportsmen and all others interested in wildlife and land use planning. To review land use planning trends as they affect wildlife in areas related to forest management, agriculture and urban sprawl.\*PS

-more-

add 2--special short course schedule

- May 4                   The Food Protection Paradox; Should We Legislate or Educate?  
North Star Ballroom, Student Center, St. Paul Campus. To  
discuss current concerns over the increasing number of food  
regulations and their effects on the food industry, the  
consumer and the involved regulatory agencies. For students,  
staff and faculty of the University, food industry,  
representatives, regulatory personnel and consumers.\*
- May 4                   Environmental Education for Secondary Teachers; Spring Teachers  
Workshop, Lee and Rose Nature Center, Washington County. An  
annual workshop for teachers in junior and senior high schools.\*PS
- May 6-7                 Conference on National and Newborn Nutrition and Health,  
Radisson South Hotel, Bloomington. For pediatricians,  
obstetricians, nurses, dentists, family practitioners,  
dietitians, nutritionists, nurse clinicians, midwives, etc.  
To develop an awareness of the health problems and needs of the  
pregnant adolescent and infant.\*GW
- May 21-23              Minnesota State Fire School, St. Paul Campus. For volunteer and  
paid fire department personnel, city officials, and interested  
government and industry personnel who deal in fire safety,  
prevention, control and rescue and first aid work.\*PS
- June 23-24             Homemakers Workshop, Morris Experiment Station.+
- June 28, 29, 30,  
July 1, 2              Feed Mill Operators. Locations: Rochester, Mankato, Worthington,  
Alexandria. (Locations and dates to be matched later.) Formulation  
of high quality feed, including a presentation on molds and  
mycotoxin and how they affect feed quality. Watch for further  
details.\*RM
- June 29, 30,  
July 8, 14             Crops and Soils Field Day, Waseca Experiment Station, June 29;  
SW Experiment Station, Lamberton, June 30; Morris Exp. Station,  
July 8; Crookston Exp. Station, July 14.+
- July 5-8               Agricultural Education Seminar, Radisson South, Bloomington,  
(July 8, St. Paul Campus). For instructors and administrators  
of vocational and technical educational programs in agriculture.\*LF
- August 2-6             Minnesota 5th Annual Dairy Tour to Connecticut, Massachusetts,  
New York, and Vermont. To acquaint Minnesota dairymen with  
the latest technology and management practices in New England.  
For Minnesota dairy farm operators and their wives.\*GW
- August 24,  
September 8,9         Fall Corn and Soybean Day, Lamberton, Aug. 24; Waseca, Sept. 8;  
Morris (Fall Field Day), Sept. 9.+

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March 29, 1976

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Immediate release

4-H NEWS

4-H CONSERVATION  
MEET SET JUNE 7-11  
AT LAKE ITASCA

The five-day Minnesota 4-H Conservation Leadership Conference starts June 7 at the University of Minnesota Forestry and Biological Station at Lake Itasca.

About 80 4-H junior leaders and about 10 adult leaders are expected to attend the conference which will help youth and adults gain increased knowledge about management of the state's natural resources and leadership competence in planning and conducting environmental programs.

The program features bus tours, using the park as a teaching laboratory; special interest classes; and discussion of contemporary issues involving natural resources in Minnesota.

Resource persons for the conference include Extension Foresters Bill Miles and Marvin Smith, Extension Entomologist David Noetzel, Extension Horticulturist O. C. Turnquist, Extension Conservationist Clifton Halsey and Professor Ira Adelman of the Department of Entomology, Fisheries and Wildlife.

During the past four decades more than 3,000 4-H'ers have been involved in learning sound principles of resource management taught by more than 80 different environmental experts. The conference is sponsored by the Federal Cartridge Corp. and the University of Minnesota Agricultural Extension Service. For registration information, contact \_\_\_\_\_ at the \_\_\_\_\_ County Extension Office.

-daz-

CA, YOUTH

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March 29, 1976

ATT: Extension Home Economists

Immediate release

MBC  
3/27/76

CENSUS SHOWS  
"RURAL RENAISSANCE"

Eight million more Americans are living in rural areas and small towns today than in the early 1900's. City dwellers are fleeing to suburbs and country towns and villages in what experts see as a "rural renaissance."

In turn-of-the-century America, the census identified 8,900 country towns with populations of 2,500 or less. Today there are more than 13,700 such towns in the U.S., according to the most recent census.

But despite this rural migration, two-thirds of us still live on one-fiftieth of the country's land, mostly along the two coasts and in a few highly populated areas in between.

"FREE" PAPER BAGS  
COST CONSUMERS PLENTY

Overuse of paper products is costing consumers several billion dollars a year, according to William Willier, consumer law professor at Boston College Law School.

At a cost of about two cents per sack, the average family--consuming \$40 worth of food a week--pays indirectly about 12 cents a week for sacks alone. Industry spokesmen say the average bag of food today holds about \$8 worth of groceries.

Grocery industry representatives estimate that use and overuse of grocery bags costs shoppers between \$300 and \$400 million annually. Some stores reportedly are considering paying shoppers for returning sacks to pack their own purchases, a practice during the paper shortage in 1973.

-more-

add 1--census shows

HOMEMAKERS SURVEYED  
ON NUTRITION KNOWLEDGE

Interviews with more than 2,500 homemakers nationwide reveal that more respondents report learning about nutrition in high school than from any other source. Newspapers or magazines and mother or grandmother were the next most common sources of information, according to the U.S. Department of Agriculture study.

Forty percent said they were interested in knowing more about nutrition and another 30 percent showed slight interest in gaining more information. The rest were uninterested or undecided.

Most respondents knew how to handle and store foods, but less than half understood the need for a variety of foods and for varying amounts dependent on a person's age and sex. Food diaries revealed that milk in some form was the food group most often found to be lacking in family members' diets. Dark green and deep yellow vegetables also were served infrequently.

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March 29, 1976

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MSC  
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P

MICROWAVE OVENS  
MAKE STRIDES  
IN APPLIANCE SALES

Microwave ovens were big sellers in the appliance industry for the past year, and they are particularly popular in the Upper Midwest says Wanda Olson, extension household equipment specialist at the University of Minnesota.

Citing figures from Merchandising magazine, Mrs. Olson says about 840,000 microwave ovens were sold in 1975. Nationwide, slightly more than three percent of homes have the ovens. In this area, the saturation figure for microwave ovens rises to more than six percent.

Heaviest microwave sales were in November and December, indicating widespread use of the ovens for holiday gifts. Other appliances that found their way into increasing numbers of homes include slow cookers, which jumped from nine to 17 percent saturation by households, and electronic calculators, which rose from 21 to 68 percent.

Appliances with nearly complete saturation whose main sales are in replacement units include coffeemakers, ranges, refrigerators, radios, televisions, irons, toasters and vacuum cleaners.

Other trends in appliance sales include declining popularity of side-by-side refrigerator/freezers. They now are 16 percent of the market compared to 20 percent two years ago, Mrs. Olson notes.

No-frost refrigerator/freezers continue their popularity climb. Nearly three-fourths of refrigerator/freezers sold have automatic defrost systems, a jump of more than 10 percent over sales percentages five years ago, according to Mrs. Olson.

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March 29, 1976

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*MSC*  
*3/29/76*

MINCO PROSO MILLET  
INTRODUCED BY UM

Minco, a new high yielding white-seeded proso millet variety, has been released by the University of Minnesota Agricultural Experiment Station.

Agronomist R. G. Robinson, who developed Minco, says it is adapted to Minnesota and probably a much larger area. Performance tests in Nebraska and Colorado show it also does well in those states.

Minco is the highest yielding variety of white proso millet available, according to Minnesota tests. It also shows advantages in test-weight per bushel and lodging resistance.

Although Minco is four to 10 days later than several other proso varieties, it is a short season crop as compared to other cereals. It will head about 52 days after planting and reach maturity in 90 days, permitting harvest most years in southern Minnesota with as late as a July 10 planting. June planting is recommended.

Minco proso millet has good tolerance to atrazine and could be used in crop rotations on land previously treated with that chemical.

It is used primarily for caged and wild bird feeding, but is also useful as a food grain and livestock feed grain. Minco seed has been made available to Minnesota seed producers this spring. Seed supplies are limited now, but will be adequate for all purposes by next year.

-daz-

ca,la,field crops

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March 29, 1976

Immediate release

IN BRIEF. . . .

Rumensin. Rumensin, a feed additive for beef cattle, has not been cleared for use in lactating dairy cows or for dairy replacements on pasture by FDA. The product is considered a drug which alters the rumen fermentation and volatile fatty acid production, says Mike Hutjens, extension dairyman, University of Minnesota. This allows the animal to derive more energy from the feed it consumes or grow more on less feed.

\* \* \* \*

Pig Starters. It's hard to demonstrate that adding anything other than an effective antibiotic or combination of antibiotics will consistently improve performance of nutritionally well-balanced pig starter rations. Researchers say certain other additives seem to have an effect at times; but in other trials they do not. In an Iowa test, these additives were included in rations fed to pigs weaned at 10 pounds and fed until they weighed about 45 pounds:

- The control, an 18 percent starter with ASP 250.
- Control plus lactobacillus acidophilus.
- Control plus a mixed culture of bacteria, molds and yeast.
- Control plus a yeast culture.
- Control plus an iron product.

None of the products added to the starter ration improved daily gains or feed efficiency, or lowered the incidence of scours when compared to the control ration.

\* \* \* \*

Pruning Oaks. Don't trim oaks until next December, University of Minnesota plant pathologists advise. Oaks are most susceptible to oak wilt infection in spring and trees with pruning wounds are especially susceptible. Oaks may occasionally be infected in summer and fall, so it's best to limit pruning to the winter months, December through February. More information is available from the \_\_\_\_\_ County Extension Office.

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March 29, 1976

Immediate release

MHC  
3/29/76

NEW PUBLICATION  
ON LAMBING PROBLEMS

Lambing problems stem from poor management, inadequate equipment or an "indifferent attitude" on the part of the sheepman, two University of Minnesota animal scientists say.

"Lambing season is critical--it determines the success of the entire operation," say R. M. Jordan and H. E. Hanke. The two have authored a new publication entitled "Avoiding Lambing Season Problems."

The sheepman's attitude is the most important, followed by management. "Poor equipment often gets the blame, but good management and proper attitude can make even poor equipment work," Jordan and Hanke say.

"The right attitude must be one of great concern for new life. In addition to humanitarian reasons, you should be motivated to save every lamb because that lamb is your profit.

"A successful lambing season is not just bringing a new lamb into the world--it's keeping him alive."

"Every lamb must suckle and be protected from chilling. Failure is certain if you don't look on every lamb born as a lamb to be sold," the animal scientists say.

Single free copies of the publication are available from Minnesota county extension offices. Or, write to the Bulletin Room, University of Minnesota, St. Paul 55108. Ask for Extension Folder 309.

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CA, L, IA

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March 29, 1976

Immediate release

APRIL 15 START  
FOR YARD-GARDEN  
TELEVISION SHOW

The Agricultural Extension Service's "Yard 'n Garden" program shifts to 7:30 p.m. Thursdays starting April 15 on most educational television stations.

The 7:30 p.m. Thursday showings will be on KTCA-TV, Twin Cities; WDSE-TV, Duluth; and KWCM-TV, Appleton.

The program is aired at 10:30 p.m. Thursdays on KFME-TV, Fargo, and KGFE-TV, Grand Forks, starting April 8.

"Yard 'n Garden" can also be seen on some commercial television stations in Minnesota. Check your listing for time, day and station.

Some of the topic areas for this season's programs include: Fruit and vegetable disease and insect problems, canning and freezing fruit and vegetables, preparing soil for planting, pruning trees, tree diseases, planting, arranging and cutting flowers, harvesting vegetables and fall gardening.

University of Minnesota Agricultural Extension Service specialists provide useful tips to make backyard gardening more fun. The program identifies problems that gardeners face throughout the season. Viewers may send questions to: Yard 'n Garden, University of Minnesota, St. Paul 55108.

-daz-

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Department of Information  
and Agricultural Journalism  
Agricultural Extension Service  
University of Minnesota  
St. Paul, Minnesota 55108  
Tel. (612) 373-0710  
April 5, 1976

MSC  
4/7  
Immediate release

SCIENTISTS DOUBT  
TRITICALE VALUE

Triticale, a cross of wheat and rye that reportedly is better than presently grown crops, is of doubtful value in Minnesota, says Roy Thompson, University of Minnesota extension agronomist.

Researchers from Manitoba to Mexico are working to eliminate some of triticale's shortcomings, but they still have a way to go before that crop is competitive with wheat in Minnesota, he adds.

Triticale's protein content and feeding value are a little better as compared to wheat or other cereals, but this is not enough to offset the disadvantages, the agronomist says. Three years' field trial averages at several Minnesota locations show that Era wheat out yielded 6TA204 triticale by more than 400 pounds per acre. Era in these tests yielded 2,586 pounds per acre (43.1 bushels) and the triticale yielded 2,178 pounds per acre. Because of the lower test weight for triticale--45 to 50 pounds per bushel--comparisons are usually based on pounds produced per acre.

Triticale lines differ widely in types and other characteristics. The 6TA204 line is later than Era wheat when planted in the spring and is not winter hardy enough to be sown in the fall like winter wheat or rye. Tests in Arizona and California indicated many lines there have good winter survival and are in limited use for forage and grain production.

Ergot, a serious problem with triticale, partially results from poor pollination where many florets in a head fail to produce seed.

-more-

add 1--scientists doubt triticales value

Since there are no grain standards for triticales, marketing can be a problem unless the crop is fed or sold locally. North Dakota feeding trials indicate that swine fed a barley ration gained up to 27 percent faster than those fed a triticales ration. Where triticales was used with barley half-and-half for the grain part of the ration, the gain and efficiency was improved. Triticales appeared to be somewhat unpalatable to swine and therefore resulted in lower feed consumption. It was not possible to determine if ergot was a partial cause of reduced feed intake. Triticales consumption was lower than barley consumption when fed to cattle, resulting in reduced gains and feed efficiency.

-daz-

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April 5, 1976

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MISC  
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MORE POTENTIAL FOR  
IRRIGATION IN STATE

There are many opportunities for Minnesota's irrigating farmers to produce specialty crops, a new University of Minnesota publication says.

Up to one million acres in Minnesota may be able to benefit from irrigation, while about 111,000 acres were irrigated in 1974. However, future growth of irrigation will be determined by factors such as the farm price-cost situation, availability of financing, availability and relative cost of energy, and type of legislation enacted for water, land and energy use.

Short or long term materials shortages in the irrigation industry and support for research and market development will also determine how the industry progresses.

Marketing outlets are a key issue. "Additional processing facilities are needed to meet the potential for irrigated vegetable crop production," the report says. However, new processing facilities have been constructed to handle the expansion of dry field bean production, and new facilities are under consideration for the 1978 irrigated sugar beet crop.

The 82-page publication has sections on potential soils for irrigation, water sources, costs, crop cost analysis and marketing opportunities. There are separate chapters on about a dozen crops.

Single free copies are available by writing E.C. Bather, Department of Agricultural Engineering, University of Minnesota, St. Paul 55108. Ask for Miscellaneous Report 138, "Potential for Irrigated Crop Production."

The report is part of a two-year study entitled "Development of Irrigation and Specialty Crops (DISC)." It is partially funded with a \$150,000 appropriation from the Minnesota Legislature.

# # # #

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APRIL SAFETY TOPIC:  
PREVENT SALMONELLOSIS,  
HEALTH EXPERT SAYS

Salmonellosis is one of the most important public health and animal health problems in the United States, says Maurice Tipcke, environmental health specialist at the University of Minnesota

An estimated two million persons every year are affected by this disease which is identified by acute intestinal infection with diarrhea, abdominal cramps, fever, nausea and vomiting.

Preventive measures include:

- Thorough cooking of all food derived from animal sources, with particular attention to fowl, egg products and meat dishes.
- Protection of prepared foods against insect or rodent contamination.
- Proper refrigeration of prepared foods--between 35 and 40 degrees.
- Attempts to control salmonella infection among domestic animals.
- Proper inspection of meat and poultry products.

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NEW VARIETIES  
OF WILD RICE

New wild rice varieties could give a shot in the arm to Minnesota's newest commercial crop. The state produces nearly 80 percent of the world's supply of wild rice.

University of Minnesota scientists are working on experimental varieties that mature earlier, are shatter resistant and disease resistant.

One experimental line--labelled Exp 1--matures 10 to 13 days earlier than popular varieties now being grown.

"We're optimistic that Exp 1 could eventually give a boost to the state's wild rice growers," says W. A. Elliott, the University of Minnesota wild rice breeder who has been working three years on new early maturing varieties.

Earlier maturing varieties would help ward off three major problems with cultivated wild rice--diseases, frost damage and possibly blackbirds. "Earlier varieties would also spread the harvest over a longer time period since most growers would continue to grow some later varieties," says Elliott. "So instead of having about two weeks to harvest the crop, they might have about five. Labor and equipment utilization could be spread out more evenly.

"In addition, after-harvest chores such as rotor tilling that helps get rid of plant residue and weeds would be more apt to get done. If these chores can't be done in the fall due to late harvest the following year's yields often suffer."

Work on the Exp 1 line is in its final development stage. If it does well in tests again this year the chances are good that it will be released by the Agricultural Experiment Station to wild rice growers in 1978.

# # # #

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BROADLEAF WEEDS  
TROUBLE GROWERS  
OF SMALL GRAINS

Broadleaf weeds are almost always a problem for small grain growers, says Extension Agronomist Oliver Strand of the University of Minnesota.

Annual broadleaf weeds, such as pigweed, common lambsquarter, wild buckwheat and wild mustard, compete seriously with small grain, especially the new shorter-strawed, semi-dwarf wheats. In years when grain cannot be seeded early, annual grass weeds, such as foxtail, are also a big problem.

Growers should first identify the principal weeds that are a problem, then they should check the appropriate publications to determine the best chemical to use for the problem, Strand says.

Apply the proper chemical at the right time with enough water to give good coverage of the weeds. Make sure the chemical is applied uniformly. It is almost impossible to control weeds by hand hoeing or tillage when they are mixed in with the grain or twine around the plant, so chemicals are a must, he adds. But use cultural weed control methods in addition, such as planting vigorous weed-free seed, good seedbed preparation and tillage to control perennial and other problem weeds before seeding. Then clip or spray with 2,4-D or other chemicals after harvest to control weeds if the small grain is not seeded down to a legume crop.

For more information, get FS Ag Chem 8, "Weed Control in Small Grains," from the \_\_\_\_\_ County Extension Office or the Bulletin Room, University of Minnesota, St. Paul 55108.

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4/5/76

IN BRIEF. . . .

Herbicide Rates. How to calculate herbicide rates and calibrate farm herbicide applicators is explained in a University of Minnesota publication available at the \_\_\_\_\_ County Extension Office. Chemicals must be applied uniformly at the proper rates for effective weed control. A slight variation in the application rate of some chemicals may result in poor weed kill or crop injury, University of Minnesota specialists say. Ask for Agricultural Chemicals Fact Sheet No. 5.

\* \* \* \*

Corn Maturity. Minnesota relative maturity ratings for corn hybrids are discussed in a publication available from the \_\_\_\_\_ County Extension Office. It's important to select corn hybrids for local conditions. You need "full-season" hybrids to get maximum yields, the publication says. Ask for Agronomy Fact Sheet No. 27.

\* \* \* \*

Crossbreeding Study. An Iowa hog crossbreeding study using Chester White, Duroc, Hampshire and Yorkshire breeds showed the following results:

--Breed of sire had little effect on number of pigs born per litter.

However, Chester White and Yorkshire females had outstanding mothering traits--litter size and number at eight weeks were larger than for other breeds.

--Pigs from Duroc and Yorkshire dams or sired by Duroc and Yorkshire boars were the largest at five months of age.

--Pigs sired by Hampshire boars or out of Hampshire sows had larger loin eyes and less backfat than those in pigs produced by the other breeds.

--Crossbred pigs had higher livability than purebred animals. They also weighed 14 percent more at weaning and at five months. They required an average of 17.6 fewer days to reach 220 pounds than the purebred pigs.

--Although there are breed differences, there are excellent animals within each breed. Animals within a breed vary more than the differences among breeds.

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SMOKE DETECTORS  
IMPROVE SURVIVAL ODDS  
IN HOUSE FIRES

A smoke detector in your home's bedroom area and another at the top of every flight of stairs can drastically reduce chances of having a nighttime home fire fatality according to Robert Aherin, extension safety program specialist at the University of Minnesota.

He recommends smoke detectors rather than those that are triggered by heat. Smoke detectors respond to a broad spectrum of fires in time to sound an alarm. "You need a minimum of two minutes to rouse yourself and other occupants to get out of the house," Aherin says. "Properly installed warning devices can assure you of these life-saving minutes."

Smoke detectors using household current are convenient because they don't have to be checked for worn-out batteries, Aherin says. Only about ten percent of dwelling fires also involve power outages. Battery-operated detectors have the advantage, however, of not needing nearby electrical outlets or unsightly power cords.

Aherin advises consumers to shop for detectors bearing the Underwriter Laboratory (UL) label or seal of approval and to test them regularly. Units should be kept free from dust, cobwebs and insects and battery-operated detectors should have their power cells replaced as soon as the signal indicates the necessity.

Smoke detectors that use photoelectric sensors also have bulbs that must be changed periodically to insure proper operation.

The Minnesota Building Code Division maintains an up-to-date list of approved smoke detectors. Copies are available from:

Minnesota Building Code Division  
408 Metro Square Building  
7th and Robert Streets  
St. Paul, MN 55101

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AMERICAN WAY OF LIFE  
MOVING TOWARD AN OVERHAUL

More worry about coping with inflation and shortages and less concern with "keeping up with the Joneses" may mark a shift in the American way of life says Edna Jordahl, extension home management specialist at the University of Minnesota.

She predicts that many Americans will re-examine extravagant tastes in favor of less costly ways of finding fulfillment. The "era of limits" is approaching and lifestyles will change dramatically.

Family life probably will change as parents limit the number of children they have. More women will opt for jobs instead of early marriage and childrearing, Mrs. Jordahl suggests. More breadwinners and fewer offspring also may mean new roles within families such as a working woman supporting the family while her husband launches a risky business venture or pursues some other interest.

By 1985, the average work week will be 34 hours due largely to increased automation, says Ms. Jordahl. More and more workers will be running things rather than making them and they will benefit from financial protection plans such as company credit unions and health maintenance organizations.

More leisure time will mean a boom in the recreation industry. But travel experts foresee more restraint in accommodations and in distances covered on vacations. Mrs. Jordahl says more families are likely to develop special interests--skiing, camping, historical sightseeing, music--that they can satisfy in one city or region.

Similarly, Americans may cut back on money spent for big homes, clothes and heavy cars. Mrs. Jordahl says home economists already are noting a "back to basics" movement in dress, job attitudes and family life that may help us cope if shortages persist as predicted.

-more-

add 1--american way of life

What isn't spent on our homes and other material comforts may be absorbed by increased government spending. Purchases of goods and services by federal, state and local branches of government are expected to account for nearly one-fourth of the gross national product by 1980, she predicts.

All kinds of services will be part of the same trend. Consumer expenditures for such things as medical care, education, recreation and financial services are expected to be more than 70 percent greater in 1980 than they were in 1975.

-dmn-

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4-H NEWS

Immediate release

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PEDAL POWER  
WORKSHOP SET  
JUNE 7-10

About 150 teen leaders from 4-H and other youth organizations are expected at the Pedal Power Workshop, a bicycle safety camp, starting June 7 at Camp Lincoln near Brainerd.

The four-day workshop, sponsored by the University of Minnesota Agricultural Extension Service and the Minnesota Public Safety Department, provides teen leaders training to conduct bicycle safety programs in their home communities.

The camp, for 15 to 17 year olds, is an opportunity to learn bicycle safety and maintenance, to go on bike hikes, learn the rules of the road and participate in bike road-e-os. Participants, who are supported with \$25 camperships each by youth and civic organizations, will teach others bike safety with the support of their sponsors when they return home.

For more information, contact \_\_\_\_\_ at the \_\_\_\_\_ County Extension Office.

-daz-

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Immediate release

SIMMENTAL, SHORTHORN  
BULLS TOP GAINERS

Simmental bulls on official test were top gainers at the Minnesota Bull Test Station, located 11 miles northwest of Lake Benton.

These bulls averaged 2.98 pounds per day for the first 112 days on test. The top gain was 3.59 pounds for a Simmental bull owned by Luhman Bros., Goodhue.

Three Simmental bulls owned by Howard Sargeant, Forest Lake, topped all other bull pens. They gained 3.22 pounds per day on test.

The Polled Shorthorn breed followed with an overall gain of 2.76 pounds. Two bulls owned by Dale Blum, Correll, topped all Shorthorn bull gains with 3.21 and 3.17 pounds per day for the 112 day test. Tied for second place was a Polled Shorthorn bull owned by the University of Minnesota West Central Experiment Station, also with a 3.17 gain.

Bulls from the Twin Rivers Angus Ranch, Mapleton, repeated as the top gaining pen of Angus bulls on test. They gained 2.81 pounds per day.

Robert Sallstrom, Winthrop, had the top Angus bull with a 3.0 pound test gain.

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STATE FFA'ERS  
TO MEET APRIL 25-28  
AT ST. PAUL

More than 2,600 Minnesota high school students are expected to attend the three-day 1976 Future Farmers of America (FFA) State Convention and Leadership-Citizen Training Program starting April 25 for the 47th year on the University of Minnesota's St. Paul Campus.

This year's convention theme is "Future for America--FFA." Students interested in careers in agriculture, agribusiness, natural resources and horticulture will attend.

A two-day leadership conference starts the convention and a talent show and vesper service will be held on the evening of the first day. The chapter representatives in the safety-health workshop will make plans for the 1976 D-Day (Don't Smoke Day) in cooperation with the Minnesota Division of the American Cancer Society. Plans will also be made on sale and installation of life saving kits and smoke detector units with one of the highlights on April 26 is the 40th annual convention banquet in the St. Paul Civic Center Auditorium Arena with national FFA Secretary Mike Jackson as speaker. State and regional Star Farmer-Agribusiness winners will be announced at the banquet.

Also at 8:45 a.m. April 27, the 21st hand-milking contest between the State Star FFA Dairy Farmer and Minnesota's Princess Kay of the Milky Way will be held in front of Coffey Hall on the University's St. Paul Campus. FFA'ers have won 13 of the previous 20 contests.

The 47th annual public speaking contest, judging contests, the 21st annual cow-clipping contest at 1:30 p.m. in the dairy barn, and a horse clinic are set for the April 26 program.

add 1--state FFA'ers to meet

FFA chapter climatologist, who report state precipitation to the state climatologist monthly, will meet Monday afternoon (April 26).

Plans for Farmfest '76 and other Bicentennial events will be finalized. Among the observances are the installation of a historical plaque June 8 at the first FFA Chapter meeting in Minnesota at Esko on Oct. 29, 1929.

A Dutch treat luncheon will be at noon Tuesday, April 27, in the Student Center for FFA'ers and advisers involved in the Legislative Commission on Minnesota Resources funded game bird stocking and habitat improvement projects.

-daz-

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7/27/76

HAVE HEIFERS  
CALVE EARLIER  
IN SEASON

Heifers do not give as much disease protection to their calves through colostrum milk as do older cows, University of Minnesota research has shown.

"Heifers have had less disease exposure than older cows and tend to be less immune to diseases," say Drs. Jerry Hilgren, Don Johnson and Jerry Olson of the College of Veterinary Medicine. "For this reason it makes sense to have heifers calve early in the season--before serious calf scour problems have a chance to build up."

The researchers have just completed initial studies of antibody levels in over 350 cows and calves. The project was funded by the Minnesota Beef Research and Promotion Board. A recent \$10,000 grant from the board will help fund the project for another year.

The \$10,000 grant will help determine the length of time that antibody protection from colostrum is effective in calves. In addition, the scientists will attempt to determine influence of colostrum antibody protection on vaccination against respiratory diseases such as BVD and IBR.

"With more information like this veterinarians may be able to make more precise recommendations on methods and timing to vaccinate against these respiratory diseases," the UM veterinarians add.

Their research shows that antibody levels in colostrum milk is often 30 times more concentrated than the dam's serum and the calf usually develops antibody levels three to four times that of its mother.

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#### NEW USURY RATE ON AG LOANS

A new state law lifting the 8 percent usury rate on agricultural loans will change the composition of the mortgage market more than the availability of credit, a University of Minnesota agricultural economist says.

The law allows the interest rate to float five percentage points above the federal discount rate (the rate at which the federal reserve system lends to banks).

"That gives plenty of flexibility," says Mathew Shane of the Department of Agricultural and Applied Economics. "The discount rate has been as high as 7 percent."

Farmers have been able to obtain mortgage credit despite the usury limit because Federal Land Banks have been exempt from the limit, Shane says.

Federal Land Banks currently hold 22 percent of all farm real estate debt in Minnesota. Life insurance companies hold 11 percent, commercial banks 9 percent, the Farmers Home Administration 7 percent and individuals 51 percent (under contracts for deed).

"The new law ought to make the insurance companies and banks more competitive," Shane says. "We'll probably see some movement away from individually-held debt and toward the banks and insurance companies."

The new law also lifts the usury limit on business loans, but Shane says that change will primarily affect proprietorships and partnerships. Lending to corporations was already exempt from the usury law.

Any liberalization of usury limits is beneficial, he says, because it reduces the flow of funds to states without usury restrictions and it eliminates distortion in the credit market.

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NEW SOYBEAN VARIETY  
RELEASED BY UM

Grande, a new soybean variety developed by the University of Minnesota Agricultural Experiment Station, will be available to registered and certified seed growers in 1976.

Certified seed for commercial production of Grande (pronounced GRONDAY), will be available in 1977.

Certain food manufacturers are interested in the variety as a confectionary product since its seeds are larger than those of commonly grown varieties.

But needs of the food industry for the seed are limited at this time and farmers should "carefully consider" any decision to grow this variety, University of Minnesota scientists say.

Grande compares favorably with Swift and Evans varieties in yield, but it does not have the phytophthora resistance of Evans or the chlorosis tolerance of Swift.

In addition, its large seeds dictate planting more pounds of seed per acre and taking care at harvest to avoid seed splitting.

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W.C.  
J 1274

PLAN APPLE DISEASE  
CONTROL PROGRAM

Plan now for apple tree disease control this season, says Herbert G. Johnson, University of Minnesota extension plant pathologist.

Scab, rust and fire blight are the serious apple diseases in this area. Experience with tree diseases in past seasons is a good guide to this year's needed plan. If there are no rusted cedar trees within one-fourth mile of your apple trees, you should never have more than a trace of rust and control is not justified.

For trees that are regularly affected with one or more of the three diseases, there are some alternatives. You can let the diseases develop to the extent that fungus spore concentrations and weather will allow. Some years the diseases are more severe than in others and your trees might be fairly resistant to certain diseases allowing harvest of some useable fruit.

Use of the proper fungicides will effectively control scab and rust on a good schedule with proper application procedures and equipment. Get a copy of the "Home Fruit Spray Guide," Extension Pamphlet 184, from the \_\_\_\_\_ County Extension Office or the Bulletin Room, University of Minnesota, St. Paul 55108. Note that some fungicides that control scab do not control rust, such as the home fruit sprays available in most garden stores. So another fungicide must be added. For more information, get Plant Pathology Fact Sheet 4, "Cedar-Apple Rust," and Plant Pathology Fact Sheet 17, "Fire Blight," from your county extension office or the Bulletin Room.

-daz-

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*J.P. McKinnon*

IN BRIEF. . . .

Sunglo Portulaca. Sow a package of Sunglo Portulaca seed in the open ground in late May when the soil has warmed, advises Jane P. McKinnon, Minnesota extension horticulturist. This is another new hybrid annual that has been a great success in demonstration gardens in Minnesota the last three years. Sunglo Portulaca is now in seed racks in garden stores, so get your package early to be sure to have some to sow over the tulip bed to keep the spot colorful all summer.

\* \* \* \*

Home Landscapes. Some of the extra touches for home landscape are best added at the last minute in May, says Jane P. McKinnon, University of Minnesota extension horticulturist.

Try the new F-1 hybrid Glamor Begonias in a partly shaded bed. They cannot be set out until the end of the month, but they grow taller, have larger leaves and blossoms, and make more of a splash of color than the smaller wax-leaved begonias we have used for bedding plants. These fine hybrids make excellent indoor plants at the end of the summer when they can be potted and moved to a sunny window sill in the house.

\* \* \* \*

Planting Berries. When ground covers are desired in sunny locations, strawberry plants can be used effectively. Such covers can be used up to four years before reestablishment is needed.

Border plantings of raspberries, elderberries, currants, gooseberries and dwarf fruit trees can be most useful and productive. Gooseberries and raspberries are particularly effective where traffic control is important and in situations where the gardener has time to properly contain the plants to the designated growing area.

\* \* \* \*

Crabgrass Control. Use crabgrass pre-emergent control during the first week of May so you will not have to worry about purple seeds in your lawn in August. Do not forget to spray the peony shoots with fixed copper or maneb fungicides if you have ever had blasted brown buds instead of flowers. Follow label directions carefully for any garden chemical you use.

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April 12, 1976

ATT: Extension Home Economists

Immediate release

FOOD PROTECTION CONFERENCE  
SCHEDULED MAY 4

Have you ever opened a can of food that smelled bad? Did it make you wonder to what degree you're protected from mislabeled, unsanitary or otherwise harmful food?

"The Food Protection Paradox," a one-day student-sponsored conference featuring noted researchers and spokesmen for the food industry and government, will be May 4 in the Student Center on the St. Paul campus of the University.

Speakers will explore the idea that legislation is only one way to protect consumers, but it may be inadequate despite its high cost to both individuals and the industry. Consumer education and adding nutrients to our food might be alternative ways to upgrade our diets.

Topics will include risks and benefits in food protection, the safety of our food supply, consumer benefits from regulation, nutritional qualities of food, additives and food-related legislation. The featured luncheon speaker will be Richard Feltner, assistant secretary of agriculture for marketing and consumer services.

The conference is open to the public. The \$10 fee (\$3 for students) includes lunch. Persons interested in attending should contact the Office of Special Programs at the University of Minnesota, St. Paul 55108.

Sponsors are the Minnesota Student Chapter of the Institute of Food Technologists, the University's Department of Food Science and Nutrition and the Office of Special Programs in the Agricultural Extension Service.

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4-H NEWS

APPLICATIONS DUE  
MAY 1 FOR AITKIN  
CAMPERSHIPS

Minnesota 4-H club members interested in attending the 1976 Long Lake Conservation Camp should fill out applications now at their local county extension offices.

Two \$80 scholarships to attend the 11-day camp program at the Long Lake Conservation Center near Aitkin will be awarded by Minnesota 4-H Youth Development. The camperships are sponsored by the Minnesota Association of Commerce and Industry and the Minnesota Association of Soil and Water Conservation Districts.

The camp starts June 6 and June 20 for boys, July 4 and July 18 for girls and Aug. 8 and Aug. 15 for the advanced co-ed sessions.

Applicants for the camperships tell in 150 words or less what they have done in conservation and if chosen to attend camp, what they would do with the information received at camp.

Applications are due at the State 4-H Youth Development Office by May 1. For more information, contact \_\_\_\_\_ at the \_\_\_\_\_ County Extension Office.

-daz-

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FTC CALLS FOR COMMENT  
ON PERMANENT CARE LABELS

Would you like to see permanent care labels on suede and leather garments, home furnishings, yarn, rugs and sewing notions such as interfacings and zippers? These are among the items the Federal Trade Commission is considering including under proposed revisions to the Permanent Care Labeling Rule, says Sherri Gahring, University of Minnesota extension textiles and clothing specialist.

Current labeling requirements cover only textile wearing apparel and piece goods. Specifically, the FTC wants consumer comments and opinions on the following questions:

- \* Should care labels be permanently attached to suedes and leather garments?
- \* Should retailers of piece goods, yarn, carpets and rugs be required to hand out care labels to consumers? Is there a better method of distributing care information?
- \* Will standardized terms on care labels make them more easily understood?
- \* Should bleaching and ironing instructions or warnings be included with washing directions?
- \* Are both dry cleaning and washing instructions needed for items that can be cleaned safely by either method?

The Commission also invites consumers to comment on their experiences with:

- \* leather apparel, furnishings, carpets and rugs and yarn items that were damaged through improper care.
- \* garments damaged because care instructions were inadequate, incomplete or unclear.
- \* garments damaged because components such as thread, zippers and linings failed due to improper care instructions.

Written comments should be sent before April 26 to the assistant director for rules, "Care Labeling", Federal Trade Commission, Washington, D.C. 20580

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IN BRIEF. . . .

Breeding Efficiency. There's nothing magic about increasing swine breeding herd efficiency. "These are known, common sense things--but they won't get done unless you have records and goals," says Dr. Al Leman, extension swine veterinarian at the University of Minnesota. Start now by recording what's happening. Establish realistic goals and you'll be surprised at how management will improve. Some pointers:

--Breed gilts earlier--as soon as they have had one heat cycle. Breed them by eight months of age or at 250 pounds.

--Cull nonpregnant females. Cull gilts if they don't conceive after two tries; sows if they aren't in the farrowing house at least once every seven months.

--Rebreed sows at the first heat after weaning.

--Breed more females during July, August and September.

\* \* \* \*

Tornadoes. We're getting into the tornado season. And if history is any guide, at least 17 could touch down in Minnesota this year. Keep posted by listening to the radio for local weather information. The basement of a home usually offers good protection. Seek shelter under a sturdy workbench or heavy table if possible. In open country, lie flat in the nearest depression, such as a ditch or ravine.

Most farm buildings are poor protection against tornadoes. If there's time, a farmer should put stock outside and then stay in the basement until the danger is past.

\* \* \* \*

Oak Wilt. Do not prune oak trees in spring, especially in May and June. This is when oak trees are most susceptible to infection from the oak wilt fungus. You can also reduce spread of oak wilt by not hauling red oak firewood from an infected area to uninfected places. This means that Twin Citians should not haul oak firewood to cabins in northern Minnesota.

# # # #

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April 19, 1976

Immediate release

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JHP

FARMERS CAUTIONED  
ON LEAF SPRAYING

A University of Minnesota extension soils specialist cautions farmers not to let anyone tell them they have a magic formula for leaf feeding soybean plants.

Leaf feeding has been in the news lately, but Soils Specialist William Fenster says farmers who apply fertilizer to leaves are unlikely to get the dramatic results cited in Iowa research. Indeed, they are likely to burn the leaves and get no yield at all, he adds.

In two years of research at Iowa State University, varying results have been reported using a new patented process involving applying fertilizer directly to plant leaves during the grain filling period. In 1975, untreated Corsoy beans yielded 53 bushels per acre, but when hand sprayed with the proper mixture of fertilizer at three carefully selected times, yields increased to 76 bushels per acre. The soybeans were planted in 14-inch rows and were irrigated.

But most of the results were not as dramatic as the above. In fact, large increases were reported on only two test plots, while average increases were eight to 10 bushels an acre, which is enough to break even. (If the material is available, it would cost about \$10 per acre per application and three to four applications are needed).

Commercial application of leaf sprays is several years away. "It is folly to assume that if yields are not high from soil fertility that yields will be increased with leaf spray applications. It is equally folly to buy expensive products from sales people who claim to have the product based on the Iowa data. They do not have it," Fenster adds.

-daz-

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PLANT HERITAGE  
TREES APRIL 30,  
ARBOR DAY

Minnesota communities are asked to plant Heritage Trees on April 30 as part of their Bicentennial Arbor Day celebrations.

The project is sponsored jointly by the Minnesota State Horticultural Society, the Minnesota Department of Agriculture and the Minnesota Nurserymen's Association.

It is hoped that the trees planted on this historic arbor day will flourish and 100 years from now will qualify as Minnesota Heritage Trees under an ongoing program being established by the horticultural society. The program seeks to identify trees of outstanding size or of cultural or historical significance and mark them for recognition and preservation.

In Mankato and Eagan, Arbor Day ceremonies will recognize two current Heritage Trees. The Mankato Lincoln Park Elm is estimated to be approximately 300 years old and a community landmark. The Eagan Lone Oak is an historic symbol for that community which only two years ago was marked for removal by highway crews unaware of its significance. Last minute efforts by community residents won a reprieve for the tree.

The Mankato and Eagan trees are the second and third to be designated Heritage Trees under the horticultural society program. The first is the Itasca State Park red pine, once the largest red pine in the nation. Beginning this bicentennial year, the society will try to identify and certify the state's Heritage Trees and publicize them in a Register of Heritage Trees which will be continually updated in the years to come. The Heritage Tree program is co-sponsored by the Minnesota Department of Natural Resources and is partially funded by grants from the Minnesota American Revolution Bicentennial Commission and the Blandin Paper Co., Grand Rapids.

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SCIENTIST FINDS  
HORMONE RESEARCH  
ENCOURAGING

A University of Minnesota dairy scientist is encouraged by research on the use of hormones to initiate milk secretion in cows that will not conceive or are problem breeders.

George D. Marx of the Northwest Experiment Station, Crookston, says the possibility of reducing cattle infertility problems has favorable economic implications for dairymen.

In research at the Crookston and Morris Agricultural Experiment Stations, artificial freshening without the cow actually calving was induced by using estrogen and progesterone hormones. Not all the animals in the test responded similarly to the hormone treatment. All four sterile heifers responded with mammary gland growth and development and colostrum production. Older animals in the study could not be artificially stimulated to produce an acceptable level of milk production.

For the four heifers that were freshened, an average of 13 pounds of colostrum was produced at the first milking with the animals peaking at 35 pounds of milk daily. The milk-fat percentage--unusually high--ranged from 5 to 6 percent. The production level was not high when compared to first-calf heifers with a normal pregnancy and calving, but with some change in the hormone combinations and levels a higher production may be possible, Marx says.

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Immediate release

OSHA STANDARDS  
EFFECTIVE JUNE 7,  
SPECIALIST SAYS

Several requirements under the new Occupational Safety and Health Act (OSHA) Agricultural Machine Guarding Standard go into effect June 7, says Robert Aherin, University of Minnesota extension safety specialist.

In support of the need for these requirements, OSHA cited a National Safety Council estimate that more than 20 percent of all injuries reported in agricultural work involve accidents with farm machinery.

All agricultural equipment, regardless of age, must have completely guarded power take-off drives. While this standard allows until June 7 to get the shielding in place, employers have been cited and fined for failure to do so under the "general duty clause." So actually this requirement is in effect now, Aherin says.

Employers must instruct every employe when they first come on the job and at least annually thereafter in the safe operation and servicing of all machinery they will operate. Aherin suggests that farm employers document the date and type of training given to employees and have employees sign the documentation.

All farm field and farmstead equipment manufactured after June 7 must have guards placed on nip points of all power driven gears, belts, chains, shears, pulleys, sprockets and idlers. Although nip point guarding is provided by manufacturers, farm employers are responsible for keeping guards in place when the machine is in operation.

Effective Sept. 7, means to prevent accidental start-up of electrical power to farmstead equipment must be provided. Acceptable means include: providing positive locking on the main switch that can be operated only by employee servicing or maintaining equipment; and putting a manual switch, mechanical clutch or other device that would disconnect power on material handling equipment.

For more information on the Agricultural Machine Guarding Standard, contact the \_\_\_\_\_ County Extension Office or Robert Aherin, Department of Agricultural Engineering, University of Minnesota, St. Paul 55108.

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4-H NEWS

Immediate release

*Handwritten initials and scribbles*

4-H JLC, FEDERATION  
MEETS JUNE 21-25

"In Finding Myself" is the theme for the 1976 4-H Junior Leader Conference starting June 21 at the Minnesota State Fairgrounds and the University of Minnesota in St. Paul.

The five-day conference will be held concurrently with the Minnesota 4-H Federation Annual Meeting, which starts at 4 p.m. June 21 in the St. Paul Campus Student Center. Federation officers will be elected Friday morning, June 25.

More than 750 4-H'ers are expected to attend the conference, which will include assemblies, discussions, entertainment and tours. Topics for this year's conference are self awareness, friendships and sharing our world.

Heads of several firms will be honored at a banquet at 6 p.m. Thursday, June 24, sponsored by the Greater Minneapolis Chamber of Commerce at the Leamington Hotel.

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DAIRYMEN NEEDED  
FOR FARMHOUSE  
CHEESE PROJECT

Dairy farmers in nine Minnesota counties may be eligible for a new farm cheesemaking program through the University of Minnesota.

"Minnesota Farmhouse cheese is a concept for a new farm enterprise," says Ed Zottola, extension food scientist at the University.

"We view Farmhouse cheese as another possible alternative for dairy farmers," says Zottola, who developed the new trial program in Minnesota after three years' research, including a study of cheesemaking operations on European farms. Howard Morris, another UM food scientist, also worked on the project.

Milk produced on a single farm is made into cheese in a cheese house located on the farm. The cheese is aged and sold by the dairyman to the consumer or to a marketing group. By-products from the cheesemaking are recycled on the farm by feeding them to livestock.

The new pilot program in Minnesota is available to farmers in Benton, Chisago, Isanti, Kanabec, Mille Lacs, Pine, Sherburne, Stearns and Wright counties. Interested dairymen should contact their county extension office for more information.

"Selection of the pilot farms will be based on the farmer's interest, his ability to raise the capital for buildings and equipment and a demonstrated ability to produce high quality milk," says Zottola.

Returns for the extra time and investment will depend on the price of milk, quality of cheese produced and price received for the cheese. County extension agents have a fact sheet on the program that shows anticipated returns for different milk and cheese prices. A dairyman's anticipated initial investment is estimated at \$15,000 with 15 cows, \$18,000 with 30 cows and \$20,000 with 60 cows.

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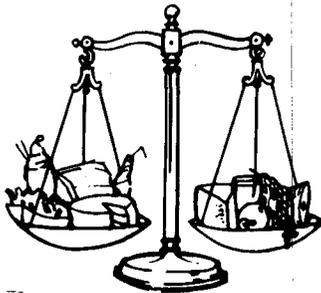
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Apr 1 20, 1976

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MANIPULATING DIET  
TRADES ONE PROBLEM  
FOR ANOTHER

No one food leads to adequate nutrition, and people who hop from one food bandwagon to another may be trading one problem for another says P.V.J. Hegarty, associate professor in the University of Minnesota's Department of Food Science and Nutrition.



## Truth in Eating

Large doses of vitamin C, for example, are touted as preventive measures for colds. But Hegarty says some research now indicates the large doses may predispose a person to kidney stones. "The choice may be between the annoyance of wiping one's nose and the pain of kidney stones," Hegarty says.

Similarly, high fiber diets are thought to be linked to low levels of colon cancer, but Hegarty says fiber hastens food's trip through the digestive track, reducing the time for vitamins and minerals to be absorbed.

"Biochemically we're all quite different," Hegarty says. "It's difficult to make generalized statements that apply to everyone. And nutrition is a young science, too. We may not see the results of some of our current experimentation for many more years."

He points to vitamin E as an example. Young people taking large doses of the vitamin may not realize any benefit from it for years. Hegarty says, "There may not be a deficient state for the vitamin in the human, but our need for it could be linked to air pollution levels or other stresses in the environment. Added amounts may offer benefits over many years, although subjects taking large doses of vitamin E for more than three years have shown neither benefit nor harm from it."

add 1--manipulating diet

Hegarty chides researchers for some of their methods. Some recent research on cholesterol levels used rabbits, which are vegetarians and never encounter cholesterol in their normal diets, and fed them the cholesterol equivalent of more than 30 eggs a day. He stresses that it's difficult, if not impossible, to extend these findings to humans.

"I could make headlines by reporting that water in the diet can be fatal," Hegarty says. "It's true--taken in absolutely massive quantities, water can kill. But no one could ever drink that much."

Some legislation in the nutrition area also is misdirected, Hegarty says. Iron must be added to bread products in some countries, but the form that must be used to keep from discoloring the bread and promoting rancidity can't be used by the body to fulfill iron requirements.

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April 20, 1976

DECIDING WHAT TO BUY  
IS EASIER IF YOU READ

If you can read and are willing to do it, your chances of being gypped at the supermarket are lessened considerably says Isabel Wolf, extension food and nutrition specialist at the University of Minnesota.



## Truth in Eating

She advises consumers to read labels, familiarize themselves with Food and Drug Administration and USDA composition standards and compare unit costs posted on many grocery shelves. If you're still confused, write to the food manufacturers whose products puzzle you, she says.

Most breakfast cereals, for example, have added nutrients and thus are required to print nutritional information on their labels. On any food product that does not have a standard of identity, ingredients are listed in the order of their predominance. A cereal with sugar listed first should raise a red flag about how much cereal based nutritional value it contributes to the diet.

Knowledge about government standards for meat products also can help the consumer, according to Mrs. Wolf. A product called "breaded fritters" will contain meat in batter, soy and breading and can contain as little as 35 percent meat. "The deceptive thing is that they're shaped to resemble meaty loin pork chops, and a consumer expecting that will be disappointed."

Similarly, canned beef stew must contain 35 percent meat, but a vat of 35 percent meat stew in the factory can yield cans of stew varying from meaty to nearly all vegetables in gravy.

-more-

add 1--deciding what to buy

She also reminds consumers that they're paying for convenience in both price and nutrition. A package of six prebreaded corn dogs contained 11 ounces of breading and five ounces of wieners and cost more than wieners and the breading ingredients would cost if consumers prepared their own.

Always buy meat on the basis of cost per serving rather than cost per pound, Mrs. Wolf says. A pound of spare ribs, for example, might only feed one person, but a pound of some lean cut of meat can feed four.

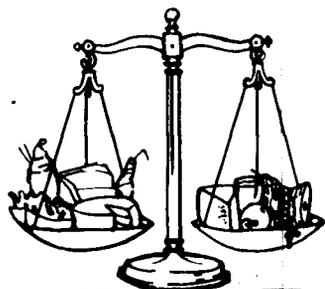
She advises a wary eye at the dairy cooler. Brand name milk may cost more than a house brand. Imitation dairy products such as sour cream or coffee whitener may contain vegetable oils that are as high in calories as regular or sour cream. Yogurt labels show the consumer that some flavored varieties contain up to 250 calories per carton while plain yogurt is about 100 calories. A few yogurt manufacturers also add sugar to their plain yogurt, and a dieter might not know this without reading the label.

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CONSUMERS CAN ACT  
TO IMPROVE THEIR LOT

The individual consumer is in a weak bargaining position when it comes to effecting food prices, says Kenneth Egertson, extension marketing economist at the University of Minnesota. But a willingness to learn more about food, to analyze what we want and to consider new marketing methods could put consumers in a stronger position.



## Truth in Eating

Egertson says rising food prices and controversy over food wholesomeness have produced more outspoken, concerned consumers. Since about 1972, they have seen food prices take more than a 15 percent yearly jump with an additional five to eight percent hike expected this year.

In the past three years, rising retail food prices have been spurred mostly by increased costs for processing and other marketing services such as labor, transportation and packaging. Farm prices have fluctuated without any overall upward or downward trend.

Egertson says many consumers look to reduced profits and labor costs as a way to hold down rising food prices. Realistically neither one offers much hope. Profits of food processors and retailers as a percent of retail food prices amount to only about 3 to 4 percent. Labor costs contribute a great deal to food costs, but it's hard to hold them down especially in an inflationary period, Egertson says.

-more-

add 1--consumers can act

Eliminating or reducing the number of services we expect with our food purchases probably is one way to attack rising costs, Egertson says. "The growth in food buying clubs and food cooperatives suggests that at least some groups prefer to lower their food costs at the expense of a lower level of food services and convenience."

Another way of reducing food costs, he suggests, is through no-frills grocery stores, now being tried in some urban areas, where consumers cut costs by bringing their own containers, packing their own groceries and marking prices on items. The roles of advertising and elaborate packaging also should come under scrutiny, he says. In many cases, they add more to consumer cost than they add in benefits.

Egertson is hopeful that the food industry can become more productive and efficient. He thinks consumers will benefit from more uniform regulations on packaging, labeling and handling foods; better rail transportation and joint action by firms to standardize packaging and reduce empty truck backhauls.

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April 16, 1976

BURDEN RESTS ON CONSUMERS  
FOR WISE BUYING DECISIONS

Despite efforts by government agencies to protect consumers and enforce laws, most of the burden for wise consumerism still falls on the frail shoulders of the shopper.



## Truth in Eating

Blanche Erkel, consumer affairs officer of the Food and Drug Administration, says it's often difficult for consumers to sort out fact from fiction because of hysteria on both sides of many food controversies.

"Terms like natural are used so generally and vaguely, they don't mean anything," Ms. Erkel says. "Poison ivy is natural, but that doesn't mean it's good for you."

Ms. Erkel says food additives are used to add flavor, color, texture, keeping quality and nutritive value to foods. The food industry must prove an additive is safe before the FDA will allow its use in food, but a number of additives were already in use when this legislation was passed.

Since the FDA began reviewing this list of existing additives, some have been banned because of health hazards they post. Ms. Erkel predicts that the FDA soon will freeze allowable additive levels at their current marks.

Other things the consumer soon can expect to see on food shelves are nutritional labels proclaiming the percentages of sugar in baby foods and pale maraschino cherries caused by a probable ban on red dye #4, which is used exclusively in that type of cherry.

Label information can be an informed consumer's tool, Ms. Erkel says. The ingredient lists and nutritional data printed on breakfast cereals, for example,

add 1--burden rests on consumers

can alert the shopper to those sugar-laden products that supply calories and little else to the daily diet. Some quick figuring of cost-per-serving also points out the economy of an item such as oatmeal, at about 2 cents a serving, versus a highly sweetened cereal that may cost more than 10 cents.

She cautions consumers not to be deceived by a food item's appearance. Very dark bread may appeal to some consumers who think they are getting more whole-grain nutrition when what they actually are getting is more caramel coloring. The dark bread may even be nutritionally inferior to white bread, which usually contains nonfat dry milk as one ingredient.

She also pointed to new flavored peanut butter spreads as containing more fat and less protein than regular peanut butter, which is less expensive.

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#### U SOIL TESTING CONTINUES

A computerized soil testing program to aid homeowners in lawn and garden care is being offered again this season by the University of Minnesota's Agricultural Extension Service and Soil Science Department.

Soil tests measure the relative nutrient status and guide in the making of recommendations for the efficient and safe use of fertilizer and lime.

Recommendations for lawns, gardens, fruit and shade trees and shrubs will be made to accommodate the soil's needs while attempting to avoid environmental pollution through excessive use of chemicals, William E. Fenster, University soil scientist said.

The computer program is designed to give recommendations based on the individual homeowner's situation, faster and more efficiently than previously was possible. Recommendations will be made for fertilizers generally available in local garden centers.

Information and materials for soil testing are available from county extension offices and most garden centers. There is a \$3 fee for each sample tested. Samples can be delivered to Room 29, Soil Science Building, or mailed to the Soil Testing Laboratory, University of Minnesota, St. Paul 55108. Results are returned in five to seven days.

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April 26, 1976

#### EDIBLE SOYBEANS FOR HOME GARDEN

Try something different in your home garden this season. Grow garden-type soybeans for a unique vegetable that is a valuable and economical source of several essential nutrients.

Although rising food prices should prompt the use of green soybeans on the table, they have not been popular in this country as compared to the Orient where they are widely used. Very few are grown in Minnesota, says Orrin C. Turnquist, University of Minnesota extension horticulturist. It may be because people do not like to shell them and use them green.

Turnquist suggests these varieties for the home garden: Akita Early, Early Green Bush, Kanrich, Pickett and Verde. More information is available in "Suggested Vegetable Varieties for Minnesota - 1976," from the Bulletin Room, University of Minnesota, St. Paul 55108.

Plant when the soil is warm in mellow or sandy loams. If you are growing soybeans for the first time, get some soil from a field where soybeans have been grown before and scatter it in your garden. Bacteria in this soil will help the soybeans utilize nitrogen from the air. If you do not have bacteria in your soil, apply nitrogen fertilizer.

Seed one inch deep, leaving five inches between the plants and 20 to 30 inches between rows. As soon as the seedlings appear, remove any weeds.

Cut the plants near the ground surface when the pods are plump and green and not too ripe. Remove the pods in a shady place and freeze or cook them within a few hours after harvest or they will lose their natural sweetness. Shell the pods by pouring boiling water over them and letting them stand in the water for five minutes. Then drain the pods and let them cool. Break the pods crosswise and squeeze out the beans.

add one - edible soybeans

Green soybeans are a dependable source of a number of minerals and vitamins, including calcium, phosphorus, iron, vitamin A, thiamin and riboflavin, but a considerable amount of vitamin A is lost during drying. Dry soybeans have one-and-a-half times as much protein as other dry beans and 11 times as much fat.

For more information, get "Soybeans in Family Meals," USDA Home and Garden Bulletin No. 208, from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

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April 26, 1976

ATT: Extension Home Economists

Immediate release

MOTHER'S DAY TRADITION  
INCLUDES OTHER COUNTRIES

Have you ever assumed the United States is the only country that has a day honoring Mom? Actually, we were late-comers to the tradition.

In ancient Roman times, Mother's Day wasn't celebrated on the second Sunday in May as it is today. It usually fell on the Ides of March--now better remembered for Julius Caesar's fate than Mother's fete.

The English have been honoring mothers for more than 500 years with "Mothering Sunday," the fourth Sunday in Lent. Children brought candy, flowers and cakes baked for the occasion to their mothers.

Mother's Day U.S.A. style originated with Anna M. Jarvis in 1907 when she arranged for a special church service in Grafton, West Virginia to commemorate her own late mother. Each person attending the service wore a white carnation--Anna's Mother's favorite flower. President Woodrow Wilson made the holiday official in 1914 and celebrants stopped wearing flowers themselves in favor of giving them to their mothers in corsages and bouquets. Carnations are still traditional for Mother's Day, but other flowers also are appropriate.

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April 26, 1976

ATT: Extension Home Economists

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PRESERVE WINTER CLOTHING  
BY CAREFUL SUMMER STORAGE

Careful storage of winter clothing ensures wearable garments next season--and eliminates the cost of replacing the wardrobe, says Sherri Gahring, University of Minnesota extension textiles and clothing specialist.

"Repair all torn or ripped clothing before cleaning and storing. Agitation in the washer and hanging in the closet can make tears and holes larger and impossible to repair when they are noticed next season," she noted.

"Never put away clothing that is soiled. Leaving stains in the clothing will draw moth larvae which can make quick work of ruining a wardrobe.

"Time may also set stains that would be easily removed if they were treated promptly," she said.

This specialist recommended a cool, dry area for storage to prevent mold and mildew.

She said that many professional dry cleaners store clothes at a nominal fee in controlled temperature and humidity vaults. This works well if home storage space is limited.

"Store similar colors together to prevent crocking or bleeding. Use moth balls in storage to prevent unwanted holes on those cherished items. Cedar chests and closets repel some insects, but moth proofing is necessary also.

"Remove clothes from wire hangers before storing. Place clothes on wooden or plastic hangers to give them longer life," she said.

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Immediate release

IN BRIEF. . . .

Energy-saving tillage. Six percent of all farm energy could be saved by the use of minimum tillage, plant physiologist G.H. Heichel of the Connecticut Agricultural Experiment Station says. That is the equivalent of 5.4 gallons of fuel per acre. However there may be lower crop yields in some situations.

Energy may also be saved by using manure instead of commercial fertilizer, but that is economically feasible only when hauling distances are one mile or less, he says in the January-February issue of American Scientist magazine.

\* \* \* \*

Energy requirements. It takes as much energy to build a six-passenger car as to grow an acre of cauliflower, five acres of corn or 20 acres of wheat, a plant physiologist says.

Writing in the January-February issue of American Scientist magazine, G.H. Heichel of the Connecticut Agricultural Experiment Station says fruits and vegetables are the most energy-intensive crops. They generally require more fertilizer and pesticides than field crops used for animal feed. They grow best under irrigation and must meet exacting marketing requirements.

Most energy-intensive crops also yield relatively little food energy or protein for the energy required to grow them, he says.

\* \* \* \*

Confinement growing. Growing horticultural plants in confinement expends a great deal more energy than growing them in open fields, according to an article in the January-February issue of American Scientist magazine.

G.H. Heichel of the Connecticut Agricultural Experiment Station says research indicates that lettuce grown continuously in a greenhouse uses 70 times as much energy as lettuce grown in open fields. Lettuce grown in a climate-controlled facility uses 300 times as much energy as lettuce in open fields.

\* \* \* \*

Energy-efficient feed. In terms of energy efficiency, animal agriculture competes successfully with horticultural crops because feed grains like corn, sorghum and soybeans are so energy efficient.

According to G.H. Heichel of the Connecticut Agricultural Experiment Station, these feed grains are so efficient that they compensate for the energy lost in the metabolism of animals which eat them. In fact, he says, beef and pork would be prohibitively expensive if hybrid corn were as energy wasteful as plants like cauliflower.

Heichel's remarks appear in an article in the January-February issue of American Scientist magazine.

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April 26, 1976

4-H NEWS

Immediate release

BIKECENTENNIAL  
STARTS MAY 16

Many 4-H club members are expected to participate in the Bike-centennial as 10,000 bicyclists wind their way across the nation to commemorate the Bicentennial.

The bikers also will inaugurate a permanent Trans-America Bike Route. Cyclists may follow or take 14 mini-tours.

Complete information on tours, cost, equipment needed and schedules is available by writing: Bikecentennial, P.O. Box 1034, Missoula, Montana 59801 or by phoning Dan and Lys Burden at (406) 721-1776.

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April 27, 1976

Programs are available to all  
people regardless of race, creed,  
color, sex, or national origin.

SPECIAL SHORT COURSE SCHEDULE (May-October 1976)

- May 1 Wildlife and Land use Symposium, B45 Classroom Office Building, St. Paul Campus. For wildlife managers and biologists, planners, land owners, educators, sportsmen and all others interested in wildlife and land use planning. To review land use planning trends as they affect wildlife in areas related to forest management, agriculture and urban sprawl.\*PS
- May 4 The Food Protection Paradox; Should we Legislate or Educate? North Star Ballroom, Student Center, St. Paul Campus. To discuss current concerns over the increasing number of food regulations and their effects on the food industry, the consumer and the involved regulatory agencies. For students, staff and faculty of the University, food industry, representatives, regulatory personnel and consumers.\*LF
- May 4 Environmental Education for Secondary Teachers; Spring Teachers Workshop, Lee and Rose Nature Center, Washington County. An annual workshop for teachers in junior and senior high schools.\*PS
- May 6 MAHA Spring Conference for Veterinarians; Clinical Management of Canine Reproduction, Sheraton Motor Inn, Bloomington. This one-day course is an update on the latest information in reproduction biology of the canine and will be of interest to practicing veterinarians, animal technicians, faculty and students in the College of Veterinary Medicine.\*GW
- May 6-7 Conference on National and Newborn Nutrition and Health, Radisson South Hotel, Bloomington. For pediatricians, obstetricians, nurses, dentists, family practitioners, dietitians, nutritionists, nurse clinicians, midwives, etc. To develop an awareness of the health problems and needs of the pregnant adolescent and infant.\*GW
- May 12 Public Health Conference for Veterinarians, Phase I Building, College of Vet Med, St. Paul Campus, University of Minnesota. For veterinarians doing public health work either on a full-time or part-time basis. The purpose of this conference is to continue the education of veterinarians in the field of public health. They will be better aware of new knowledge in their areas and can therefore better protect the health of the consuming public and animal populations.\*GW

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\* For further information call Office of Special Programs  
 LF--LaVern Freeh 612-373-0725  
 CN--Curt Norenberg "  
 RM--Richard Meronuck "  
 GW--Gerald Wagner "  
 PS--Paul Stegmeir "

+ For further information, call the Research or Experiment Station designated.

add 1--special short course schedule

- May 21-23 Minnesota State Fire School, St. Paul Campus. For volunteer and paid fire department personnel, city officials, and interested government and industry personnel who deal in fire safety, prevention, control and rescue and first aid work.\*PS
- June 21-23 Gas Chromatography Short Course, Food Science & Nutrition Department, University of Minnesota, St. Paul Campus. For beginning students and technicians of gas chromatography. To discuss the latest developments and techniques in use of gas chromatography as an analytical tool.\*GW
- June 23-24 Homemakers Workshop, Morris Experiment Station.+
- June 28, 29, 30, July 1, 2 Feed Mill Operators. Locations: Rochester, Mankato, Worthington, Alexandria. (Locations and dates to be matched later.) Formulation of high quality feed, including a presentation on molds and mycotoxin and how they affect feed quality. Watch for further details.\*RM
- June 29, 30, July 8, 14 Crops and Soils Field Day, Waseca Experiment Station, June 29; SW Experiment Station, Lamberton, June 30; Morris Experiment Station, July 8; Crookston Experiment Station, July 14.+
- July 5-8 Agricultural Education Seminar, Radisson South, Bloomington. (July 8, St. Paul Campus). For instructors and administrators of vocational and technical educational programs in agriculture. \*LF
- July 20 Custom Applicators Field Day, Waseca. For custom applicators. Field day to deal with demonstrations and new techniques in the field of crop applicators.\*PS
- August 2-6 Minnesota 5th Annual Dairy Tour to Connecticut, Massachusetts, New York, and Vermont. To acquaint Minnesota dairymen with the latest technology and management practices in New England. For Minnesota dairy farm operators and their wives.\*GW
- August 24, September 8, 9 Fall Corn and Soybean Day, Lamberton, Aug. 24; Waseca, Sept. 8; Morris (Fall Field Day), Sept. 9.+
- September 20-21 Minnesota Nutrition Conference, Thunderbird Motel, Bloomington, Minnesota. A North Central area regional conference for animal nutritionists representing producers, industry, and universities.\*GW
- October 12-15 Annual Extension Staff Conference, Breezy Point Resort. For all extension personnel in Minnesota.\*CN
- October 26, 27, 28, 29, November 3, 4, 8, 9, 10, 12, 13, 15, 16 1976 Property Valuation Short Course & Continuing Education Workshop, St. Cloud, Oct. 26, 27, 28; Hibbing, Oct. 27, 28, 29; Bagley, Oct. 28, Nov. 3, 4; Fergus Falls, Oct. 29, Nov. 3, 4; Willmar, Nov. 8, 9, 10; Marshall, Nov. 9, 12, 13; Rochester, Nov. 10, 15, 16; Chaska, Nov. 12, 15, 16. For Certified Assessors, local board members, public officers, and interested citizens on the impact of new laws relating to the assessment of property; to advise local boards of their responsibility in the assessment process and their duties as the local board of review, and to continue and extend the education of Certified Assessors.\*GW

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