

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

January 2, 1987

Source: Shirley Baugher  
612/625-1254  
Writer: Deedee Nagy  
612/625-0288

(Note to broadcasters: Enclosed is a copy of the conference program. If conference organizers can assist you in covering any of the sessions, please let them know in advance or when you register.)

## NEW AGENDA FOR RURAL AMERICA CONFERENCE SET JAN. 6-8 IN ST. PAUL

A three-day conference examining the changes in rural America and their causes and implications for the future will be held at the St. Paul Hotel January 6-8 sponsored jointly by the Extension Services of the Universities of Minnesota and Wisconsin.

"A New Agenda for Rural America" will feature such speakers as Senator David Durenberger, former Secretary of Agriculture Bob Berglund, Harvard University professor Robert Reich and other faculty members and authorities on agricultural economics and rural affairs. Other presenters and panelists will represent agribusiness interests, local governments, rural cooperatives and family counseling facilities.

The program begins at 1 p.m. Jan. 6 and concludes that day with a dinner and presentations by Senator Durenberger and Daryl Hobbs, rural sociology professor at the University of Missouri.

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Bergland will lead off the Jan. 7 program, followed by presentations on income sources for rural areas, community transitions and rural development. The final day's program includes discussion of future agendas for local governments, universities, businesses and the Extension Service.

Registration is \$95 for the three days, including the opening day dinner and lunch on Jan. 7.

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# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

Jan. 8, 1987

Source: Dale Hicks  
612/625-8700

Writer: Jack Sperbeck  
612/625-4730

## MINNESOTA EXTENSION AGRONOMIST RECEIVES AWARD

Dale Hicks, agronomist with the University of Minnesota's Extension Service, has received an award from the American Society of Agronomy.

Hicks received the society's 1986 Agronomic Extension Education Award. Hicks was recognized for helping Minnesota farmers raise corn and soybeans more efficiently. He has developed education programs on optimum corn planting dates, order of planting hybrids and grain yield and drying cost tradeoffs.

His research and publications on evaluating hail damage to crops have been used as national guidelines for replanting decisions. A survey done after an extensive hail storm in Minnesota in 1981 showed 77 percent of farmers with hail damage consulted county extension offices for information. The farmers saved \$7.5 million by deciding not to replant.

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AEA, BSS, CEO, V1

NAGR1779

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Source: Dale Hicks  
612/625-8700  
Writer: Jack Sperbeck  
612/625-4730

## DON'T REDUCE CORN PLANT POPULATIONS

You won't save money growing corn by reducing seeding rates and plant populations. "Corn growers are cutting into potential profits by cutting plant populations," says Dale Hicks, agronomist with the University of Minnesota's Extension Service.

Hicks uses this example: Seed cost is \$25 per acre with 26,400 kernels planted (for a harvest population of 24,000). That's assuming \$75 for a bag of seed with 80,000 viable kernels. Reducing the stand 10 percent saves \$2.50 per acre on seed costs, but results in 2.5 bushels less corn, or a value of \$5 per acre.

Reducing plant populations more than 10 percent causes even greater yield reductions. And lost income is higher for yield levels higher than 125 bushels per acre.

Average plant population in Minnesota is 22,000 per acre--a figure that's already too low, Hicks says.

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NAGR1774

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Jan. 12, 1987

Source: Bonnie Pechtel  
612/624-3235  
Writer: Deane Morrison  
612/624-2346

## U OF M COLLEGE OF AGRICULTURE RECEIVES KELLOGG GRANT

The W. K. Kellogg Foundation of Battle Creek, Mich., has given the University of Minnesota's College of Agriculture a \$464,000, two-year grant for Project Sunrise, a large-scale curriculum revision and enhancement effort.

Goal of the project, which will run through 1988, is to help the college better prepare agricultural professionals to meet the challenges facing American agriculture. Topics such as the relationships between problems in soil conservation, water quality and land and waste management and issues of ethics and human values will be emphasized more. Students will be encouraged to improve their leadership, communication, problem-solving and teamwork skills and to acquire a high level of technical competence.

The grant will be used to help faculty learn new skills, to fund individual and departmental curriculum improvement projects, to promote interaction between agriculture faculty and faculty from other parts of the university and other schools, and to provide consultants in areas like ethics, problem-solving and teamwork.

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"We're moving into a new agriculture," said Keith Wharton, associate dean for academic and student affairs at the college. "Traditional production, marketing and research practices are being examined and questioned. The demands on agricultural scientists are greater than ever. For example, they must master new technology, improve conservation and water quality, and compete in a growing world market. Because of our teaching, research and extension programs, though, we think we're in a position to help our students meet those demands."

Norman A. Brown, W. K. Kellogg Foundation executive vice president, said the grant "recognizes the excellence in the university's College of Agriculture undergraduate educational programming. Further, it supports the plan the college's faculty and administration have to ensure that future graduates are prepared to serve as leaders in, and managers of, the world's food system."

The foundation, established in 1930, has distributed more than \$843 million to support agriculture, education and health programs in the United States, Latin American and the Caribbean. It also supports international fellowship programs in other countries.

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# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
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St. Paul, Minnesota 55108

Jan. 15, 1987

Source: Michael Boehlje  
612/625-0231  
Writer: Jack Sperbeck  
612/625-4730

(The first of a three-part series on farmer-lender mediation.)

## **FARM LENDERS ARE MORE WILLING TO NEGOTIATE**

Agricultural lenders are now more willing to negotiate with farmers on loan payments and debt restructuring. Availability of Chapter 12 bankruptcy protection for farm borrowers and the realities of the farm economy have changed the negotiating attitude of farm lenders.

"Farm borrowers are in a stronger negotiating position. Chapter 12 gives them an option they didn't have before," says Michael Boehlje, economist with the University of Minnesota's Extension Service. "From a lenders' standpoint, the cost of NOT negotiating and cutting deals to reach agreement is higher than it was."

The majority of farm lenders say publicly that they don't like Minnesota's mandatory Farm Credit Mediation Program. But privately, some are more positive. "Lenders have said mediation is a useful tool for stimulating dialogue between farmers and lenders," Boehlje says. "Lenders have also said mediation has

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helped move past the emotional stage and produced orderly resolution between lenders and farmers. Each case is different.

"Some lenders complain that mediation slows things down and delays resolution. But mediation is only one 'tool' that's been used to slow negotiations. A person committed to delaying the process of resolution has other legal avenues that can be used."

In addition to Chapter 12 bankruptcy, there have been other changes in the farm lending picture in the last year or so. Until recently, the philosophy of some lenders was that they shouldn't have to take losses and "cut deals" that weren't part of the initial farmer-lender agreement. "Some lenders were also saying their organization couldn't afford to continue to take losses," Boehlje says, "let alone accelerate these losses through loan write-offs. There was also concern that it would send 'signals' of willingness to cut deals to other farmers if lenders wrote off some debt.

"Now there's increased awareness by lenders that they don't have many alternatives, aside from negotiating. Many farmers with too much debt don't have the earnings to pay it off. And selling some production assets won't leave the business financially viable. Lenders are realizing the only option is to take additional losses."

# # #

Jan. 15, 1987

Source: George Rehm  
612/625-6210  
Writer: Jack Sperbeck  
612/625-4730

## **NITROGEN SHOULD COME FIRST IN FERTILIZER BUDGET**

First, buy all the nitrogen needed to meet your yield goal. That's the advice George Rehm has for farmers who can't get the money to purchase all fertilizer recommended for 1987.

"It's a mistake to cut back equally on all nutrients needed for the next crop," says Rehm, soils specialist with the University of Minnesota's Extension Service. Minnesota Agricultural Experiment Station research has shown that nitrogen fertilizers produce larger yield increases than phosphate and potash fertilizers.

"If cuts in fertilizer costs are needed, there should be no reduction in nitrogen," Rehm says. "Since phosphate and potash increase yields by a smaller percentage, it's more logical to reduce money spent for either or both of these nutrients when dollars are needed."

One way to save money spent on phosphate and potash is to use a starter instead of broadcast applications. If starter attachments are not available, the best plan is to buy all the nitrogen needed to meet the yield goal and to broadcast the amount of phosphate or potash the remaining money will buy.

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**University of Minnesota, U.S. Department of Agriculture, and Minnesota Counties Cooperating**

Jan. 15, 1987

Source: George Rehm  
612/625-6210

Writer: Jack Sperbeck  
612/625-4730

## SOIL TESTING IS KEY TO CUTTING FERTILIZER COSTS

You may be able to cut costs in your fertilizer program without affecting yields. But if cost-cutting reduces yields, you also cut income.

Here are some tips from George Rehm, soils specialist with the University of Minnesota's Extension Service:

1. Use a regular soil testing program. Set realistic goals.
2. Select a soil testing laboratory that provides low-cost fertilizer recommendations.
3. If practical, use starter instead of broadcast fertilizer.
4. Don't worry about balanced fertility or balanced fertilizer programs.
5. Apply only nutrients that are needed.
6. Use nitrogen "credits" from legumes in rotation and manure.
7. Ask plenty of questions, but don't look for miracles.

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AEA,BSS,CEO,F,V1

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Jan. 15, 1987

Source: Marilyn Grantham  
612/625-8215  
Writer: Sam Brungardt  
612/625-6797

## **PUBLICATIONS PROVIDE INFORMATION TO MAKE BETTER FARMING DECISIONS**

For farmers, the difference between making a profit, not making one or barely squeaking by is sometimes no more than having the right information.

The Minnesota Extension Service and Minnesota Agricultural Experiment Station offer the public many publications that include useful information.

Among the newer extension publications that farmers may find useful are "Tips for Profitable Corn Production" (item no. AG-F0-2897), "Tips for Reducing Weed Control Costs" (item no. AG-F0-2898), "Tips for Profitable Soybean Production" (item no. AG-F0-2899), "Tips for Profitable Small Grain Production" (item no. AG-F0-2900) and "Tips for Increasing Profitability with Sheep" (item no. AG-F0-2925).

Many Minnesota farmers are already acquainted with "Varietal Trials of Farm Crops" (item no. AD-MR-1953), which is revised yearly. The 1987 edition, which is now available, includes the latest varietal performance data from Minnesota Agricultural Experiment Station trials for forage, grain, oilseed and pulse

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crops. Also included in the publication is a useful planting rate and date recommendation table.

These and many other extension and experiment station publications are available to farmers through the county offices of the Minnesota Extension Service or by writing the Distribution Center, 3 Coffey Hall, University of Minnesota, St. Paul, MN 55108.

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AEA,BSS,CEO,V1,V4

NAGR1788

Jan. 22, 1987

Source: Michael Boehlje  
612/625-0231  
Writer: Jack Sperbeck  
612/625-4730

(Second in a three-part series on farmer-lender mediation.)

## **FARM CREDIT MEDIATION: A LOWER-COST POLICY**

Mandatory farm credit mediation is far less expensive for taxpayers than other public sector programs to reduce financial stress in agriculture.

"Public programs like direct subsidies to reduce farm debt are very expensive," says Michael Boehlje, economist with the University of Minnesota Extension Service. In addition, substituting public sector debt for private debt "does little to resolve financial stress problems. For many farmers, resolution has to occur through reducing the debt obligation.

"The public sector can play a critical role in helping monitor private sector resolution or 'deal cutting' between farmers and lenders," Boehlje says. "This way, the public sector reduces costs that would be borne by participants by furnishing intermediary facilitators like mediators. Mandatory mediation helps structure and focus the negotiation process between borrowers and lenders. Mediation is a way to get farm debt

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issues resolved without having a lot of money spent in the courts. It also helps assure both parties of getting a fair hearing."

Boehlje and other agricultural economists have just published a paper on resolving financial stress in agriculture. They argue that public sector intervention to resolve financial problems of individual farmers is justified for five reasons:

1. The private sector can't absorb the losses and remain productive.

2. From an equity and social conscience standpoint, the agricultural sector alone should not bear the full cost of financial stress.

3. Public policy contributed in part to the problem; therefore, the public should share part of the cost of resolution.

4. Public sector intervention may ease the transition and reduce the chances of excessive adjustments or "overshooting" by the private sector.

5. Without public sector intervention and monitoring, the cost would be shared inequitably within the private sector.

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AEA,BSS,CEO,V1,V4

NAGR1784

# news

for County Agents

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

Jan. 22, 1987

Source: Nancy Charlson  
507/285-7026

Writer: Mary Kay O'Hearn  
612/625-2741

## **FEB. 19 PROGRAM WILL EXPLORE RURAL BUSINESS ALTERNATIVES**

Rural Business Alternatives--A Realistic Look, a program designed to give rural residents a chance to explore new business enterprises, will be held Thursday, Feb. 19, at the Dakota County Extension Building in Farmington.

David Speer, Minnesota Commissioner of Energy and Economic Development, will give the keynote talk, "The Future of Small Business in Rural Minnesota," at 9:15 a.m. Speer is with Padilla and Speer, Inc., oldest and largest public relations firm in the Upper Midwest.

Sponsors of the program, which will start at 9 a.m. with registration and conclude at 3:30 p.m., are the Minnesota Extension Service and its \_\_\_\_\_ County Extension Office, The University of Minnesota Small Business Development Center and the U.S. Small Business Administration. Many community groups helped plan the program.

Registration is \$5 for the day (including lunch) if received by Feb. 12 and \$7.50 after that date. Checks should be made payable to Dakota County Extension Revolving Fund and sent to the Dakota County Extension Building, 4100 220th St. W., Farmington, MN 55024.

After Speer's talk, three specialists with the University of

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Minnesota's Extension Service, economists Gordon Rose and Claudia Parliament and horticulturist Luther Waters, will speak. Rose will discuss "Economic Opportunities for Your County and Region" and Parliament and Waters will talk about "Agriculture and Home-Based Alternatives: Problems and Opportunities."

In small group sessions, persons who operate small businesses will discuss how they got started, how the business was incorporated with their present business, regulations, restrictions and economic considerations. There will be time for questions and answers. Attendees may attend one session from each of the following groups of sessions:

Group 1: Christmas trees, horse industry, custom farming, marketing arts and crafts, leasing hunting rights.

Group 2: shiitake mushrooms, bed and breakfast/farm vacations, marketing livestock from farm to table, catering in home and public facilities, nursery and bedding plants.

Group 3: sod production, marketing organic produce, sheep and wool industry, fresh market produce.

A similar program will be presented in Rochester at the Friedell Building on Friday, Feb. 20. State Senator Steve Morse, an apple grower and processor from Dakota, Minn., will be the keynote speaker there.

For further information about the Farmington or Rochester program, contact the \_\_\_\_\_ County Extension Office.

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Source: Nancy Charlson  
507/285-7026

Writer: Mary Kay O'Hearn  
612/625-2741

## EXPLORE NEW RURAL BUSINESS OPPORTUNITIES ON FEB. 20

Giving rural residents an opportunity to explore some new enterprises is the purpose of "Rural Enterprise Alternatives--A Realistic Look," a program that will be held Friday, Feb. 20, at the Friedell Building, 1200 S. Broadway in Rochester.

State Senator Steve Morse, an apple grower and processor from Dakota, Minn., will give the keynote talk, "Future of Small Business in Rural Minnesota," at 9:30 a.m.

Sponsors of the program, which will begin at 9 a.m. with registration and conclude at 3:45 p.m., are the Minnesota Extension Service and its \_\_\_\_\_ County Extension Office, The University of Minnesota Small Business Development Center and the U.S. Small Business Administration.

Three specialists with the University of Minnesota's Extension Service, economists Gordon Rose and Claudia Parliament and horticulturist Luther Waters, will speak in the morning. Rose's topic will be "Economic Overview of Our Region" and Waters will speak on "Rural Enterprise Alternatives: No Magic Solutions" and "Agricultural Alternatives: Problems and

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Opportunities." Parliament's topic will be "Home-Based Enterprises: Problems and Opportunities."

After lunch (included in the \$5 registration fee if it is paid by Feb. 13 or \$7.50 after that date), there will be small group sessions featuring entrepreneurs who will talk about the kind of business each has started. They will discuss how to get started, how to incorporate the idea with a current business, restrictions, regulations, liabilities, opportunities, shortcomings, marketing techniques and resources. Attendees may participate in one session from each of the following groups:

Group 1: pick-your-own berries, bed and breakfast/farm vacations, leasing hunting rights, firewood, Christmas tree production, selling chore services, textile and clothing products and services, premium for organic products, establishing enterprises with youth.

Group 2: fresh market vegetables, family day care, raising game for restaurants, growing shiitake mushrooms, lawn and landscaping services, cut and dried flowers, furniture repair and upholstery, alternative field crops, catering in homes and lunch wagons.

Group 3: bedding plant production, farm campgrounds, bees and honey, selling walnut logs and other hardwoods, horse boarding, use of wool, marketing arts and crafts, maple syrup,

selling mechanical skills, raising foxes.

On Thursday, Feb. 19, a similar program will be held at the Dakota County Extension Office in Farmington. David Speer, Minnesota Commissioner of Energy and Economic Development, will be the keynote speaker. These additional topics will be covered: sod production, livestock marketing, poultry, sheep and wool.

For more information about either program, contact the

\_\_\_\_\_ County Extension Office.

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# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

Jan. 22, 1987

Source: Donald W. Bates  
612/625-9733

Editor: Mary Kay O'Hearn  
612/625-2741

## HANDBOOKS ARE AVAILABLE ON FARM, HOME TOPICS

Midwest Plan Service handbooks on family housing, home and yard improvements, paints and painting, and insulation and heat loss are available from the University of Minnesota.

Family Housing Handbook (MWPS-16): This 74-page handbook, which costs \$6, explains and illustrates principles of good housing for families, married couples and singles. It includes suggestions for convenience and safety for the elderly and handicapped, and gives advice on how to tell good from bad floor plans and traffic patterns in homes.

The Home and Yard Improvements Handbook (MWPS-21): This \$6, do-it-yourself guide includes information on planning storage space for both new and existing homes. One section devoted to outdoor living includes layouts of activity centers and construction details for decks, patios, outdoor fireplaces, fences, recreation equipment, tree wells and retaining walls. Selection of materials (such as wood, glues, masonry, caulks, paints, stains) is discussed, and there are chapters on lighting methods and special adaptations for wheelchair homes.

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Paints and Painting (AED-9): This \$1.50 handbook is designed to help one avoid mistakes and end up with better inside and outside paint jobs. It gives step-by-step preparation instructions for wood, metal and masonry surfaces, lists paints and stains and describes their uses, and explains paint terminology.

Insulation and Heat Loss (AED-13): At \$1.50, this 12-page guide is useful in calculating heat loss and in stopping it with the proper insulation. It explains heat loss and insulation principles for farm buildings and homes. It mentions four types of common insulation--batt and blanket, loose-fill, rigid, and foam or foamed-in-place--and their uses, together with six common insulation materials: cellulose or wood fiber, fiberglass or glass wool, polyisocyanurate, polystyrene foam, polyurethane foam and vermiculite. The R-value is given for each type, together with recommended insulation levels. Moisture problems, fire resistance, bird and rodent problems and temperature limitations are discussed, and there is a list of insulation do's and don'ts. A worksheet is included for calculating a building's heat loss.

These publications are available from MWPS Plans, 210 Agricultural Engineering, University of Minnesota, 1390 Eckles Ave., St. Paul, MN 55108. Checks should be made payable to the University of Minnesota. Six percent should be added to Minnesota orders for sales tax.

# # #

Jan. 22, 1987

Source: Michael Boehlje  
612/625-0231  
Writer: Jack Sperbeck  
612/625-4730

(Second in a three-part series on farmer-lender mediation.)

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NAGR1784

Jan. 29, 1987

Source: Michael Boehlje  
612/625-0231  
Writer: Jack Sperbeck  
612/625-4730

(The last in a three-part series on farmer-lender mediation.)

## FARM CREDIT MEDIATION HAS LONG-RANGE BENEFITS

Many farmers who've gone through mediation may be better managers in the future.

"The mediation process has helped many farmers understand their business strengths and weaknesses. A lot of learning has occurred," says Michael Boehlje, economist with the University of Minnesota's Extension Service.

"Both farmers and lenders have learned some things about financial decision-making. And mediation may have helped people become more aware of financial performance measures so they're better able to anticipate and minimize future problems."

Central to mediation, according to Boehlje, is that farm families and lenders resolve difficult problems in "reasoned" ways. "It's not easy to determine how to share a smaller pie. No one is 100 percent satisfied with sharing part of a loss. Resolution that involves taking a loss is second-best, but it's better than no resolution," Boehlje says.

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"Successful mediation has also demonstrated that we don't have to resort to demonstrations and fights to resolve conflicts. It's a way to settle differences without going to court or personal attacks. We've demonstrated to our colleagues and our families that differences can be resolved in a business-like manner."

Mediation training in rural Minnesota has also helped people develop leadership skills that may be applied in other conflict situations. Aside from farm credit resolution, mediation can also help resolve conflicts in schools, local government, and other community organizations.

An evaluation of Minnesota's Farm Credit Mediation Program showed two important side effects. First, the program may have been responsible for diffusing considerable tension, anger and frustration in rural communities which would ultimately have led to violence. Mediation participants frequently noted a reduction in anger or improved communication between lenders and farmers.

Secondly, volunteer mediators may be future leaders in rural communities. "These mediators are concerned people who know a lot about communities, plus agricultural, legal and financial problems," says Richard Krueger, extension specialist who conducted the study. "They have become highly skilled in working through conflict--a valuable resource to help rebuild rural Minnesota."

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Jan. 29, 1987

Source: John True  
612/625-9733

Editor: Mary Kay O'Hearn  
612/625-2741

## **BAD WEATHER IS A GOOD TIME TO MAKE REPAIRS**

Use bad weather to your advantage by making a safety inspection of your home and farm and then doing needed maintenance.

How many times have you said to yourself, "If only I'd fixed that!"? John True, agricultural engineer with the University of Minnesota's Extension Service, reminds us that if we fix equipment now, we won't be sorry later. This includes equipment, structures, electrical systems, vehicles, grounds and safety equipment, which should all be checked thoroughly.

"When you spot a safety hazard, try to fix the problem right away," True says. If you can't make immediate repairs, then take the equipment out of service, or at least warn others of the hazard. A top-to-bottom inspection of all equipment can prevent serious injuries or death and may save money, too.

Older equipment and vehicles may not have come with safety belts or rollover protective structures (ROPS). If your tractors lack these safety features, install them before the season begins. A little investment now could ultimately save lives.

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**University of Minnesota, U.S. Department of Agriculture, and Minnesota Counties Cooperating**

With less snow on the ground, don't overlook grounds when making your safety check. Get rid of unnecessary clutter that could cause a fall or fire. Do this same safety check inside buildings where hazardous materials can accumulate year after year.

# # #

CEO

NAGR1798

Jan. 29, 1987

Source: Michael Boehlje  
612/625-0231  
Writer: Jack Sperbeck  
612/625-4730

(The last in a three-part series on farmer-lender mediation.)

## **FARM CREDIT MEDIATION HAS LONG-RANGE BENEFITS**

Many farmers who've gone through mediation may be better managers in the future.

"The mediation process has helped many farmers understand their business strengths and weaknesses. A lot of learning has occurred," says Michael Boehlje, economist with the University of Minnesota's Extension Service.

"Both farmers and lenders have learned some things about financial decision-making. And mediation may have helped people become more aware of financial performance measures so they're better able to anticipate and minimize future problems."

Central to mediation, according to Boehlje, is that farm families and lenders resolve difficult problems in "reasoned" ways. "It's not easy to determine how to share a smaller pie. No one is 100 percent satisfied with sharing part of a loss. Resolution that involves taking a loss is second-best, but it's better than no resolution," Boehlje says.

Page 1 of 2

"Successful mediation has also demonstrated that we don't have to resort to demonstrations and fights to resolve conflicts. It's a way to settle differences without going to court or personal attacks. We've demonstrated to our colleagues and our families that differences can be resolved in a business-like manner."

Mediation training in rural Minnesota has also helped people develop leadership skills that may be applied in other conflict situations. Aside from farm credit resolution, mediation can also help resolve conflicts in schools, local government, and other community organizations.

An evaluation of Minnesota's Farm Credit Mediation Program showed two important side effects. First, the program may have been responsible for diffusing considerable tension, anger and frustration in rural communities which would ultimately have led to violence. Mediation participants frequently noted a reduction in anger or improved communication between lenders and farmers.

Secondly, volunteer mediators may be future leaders in rural communities. "These mediators are concerned people who know a lot about communities, plus agricultural, legal and financial problems," says Richard Krueger, extension specialist who conducted the study. "They have become highly skilled in working through conflict--a valuable resource to help rebuild rural Minnesota."

# # #

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

Jan. 29, 1987

Source: Harold M. Pellett  
612/443-2460  
Writer: Sam Brungardt  
612/625-6797

Editors: Call David Hansen at (612) 625-7290 to obtain 35-mm color transparencies to use with this release.

## U OF M INTRODUCES 'CARDINAL' DOGWOOD, 'PRINCESS KAY' PLUM

The University of Minnesota's Agricultural Experiment Station has announced the release of 'Cardinal' red-osier dogwood and 'Princess Kay' double-flowered Canadian plum. Wholesale nurseries have begun to propagate these new cultivars. Plants of 'Cardinal' dogwood will be in fairly good supply this year, but supplies of 'Princess Kay' will be quite limited in 1987.

'Cardinal', a new, hybrid selection of red-osier dogwood (Cornus sericea), was bred for its bright red winter twig color.

Harold M. Pellett, the horticultural scientist who heads the station's woody ornamentals breeding program, says, "In late fall, the twigs and stems of 'Cardinal' develop a bright, cherry-red color that lasts until the plant leafs out in the spring. We're recommending 'Cardinal' for corner plantings, mass plantings or background screens, where its bright-red stems can provide interest in the winter landscape."

'Cardinal' was developed by crossing plants native to the vicinity of the University of Minnesota Landscape Arboretum. It is tolerant of poorly

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drained soils, permitting its use in wet sites, where other woody plants would fail. It matures at an average height and spread of 8 to 10 feet, and can be grown in full sun or partial shade.

'Princess Kay', a double-flowered selection of the Canadian wild plum, Prunus nigra, was discovered in the wild in Itasca County, Minn., by Catherine and Robert Nyland. It should be an excellent choice for any place a small flowering tree is desired.

The fragrant, white, fully double flowers of 'Princess Kay' appear in early May before the leaves emerge. The flowers are 3/4- to 1-inch across. Because of their double nature, very little fruit is set and the flowers last 7 to 10 days, a few days longer than those of single-flowered plants of Canadian plum. Plants of 'Princess Kay' bloom freely at a young age and flower best when grown in full sun.

'Princess Kay' is a small tree, with a mature height of 10 to 15 feet. The trunk and branches are dark brown or black and have large, white lenticels. This bark characteristic, the dense branching structure, and the round-to-oval habit can add interest to the winter landscape.

'Princess Kay' is tolerant of a wide range of climatic conditions and soil types. Good drainage is essential for it to grow well.

Nurseries that wish to propagate 'Cardinal' dogwood or 'Princess Kay' plum must participate in the Minnesota Nurserymen's Research Corporation royalty program. They should write Pellett at the University of Minnesota Landscape Arboretum, Box 39, Chanhassen, MN 55317, or call him at (612) 443-2460.

# # #

Feb. 5, 1987

Source: James M. Hagen  
612/625-8713

Writer: Mary Kay O'Hearn  
612/625-2741

## MINNESOTA FARMLAND VALUES SLIDE FOR FIFTH CONSECUTIVE YEAR

The value of Minnesota farm real estate dropped during 1986, the fifth year in a row, according to a University of Minnesota study just released.

Showing decreases of 25 percent from a year ago are both the average estimated value of farmland for the first six months of 1986 (\$515 per acre compared with \$686 in 1985) and average prices per acre in 980 farmland sales (\$650 per acre compared with \$864 in 1985). In discounting for inflation, current prices and values are at lower levels than at any time since 1956 (in estimated value) and 1965 (in reported sales price).

James M. Hagen, research assistant, and Philip M. Raup, professor emeritus of agricultural and applied economics, conducted the study for the university's Agricultural Experiment Station.

Estimated land values declined 18 to 30 percent in each of the six districts of the state, and sales prices of land were down in five of those districts--from 1 percent in the Northeast to 34 percent in the Southeast. East Central was the exception, with several high-priced sales resulting in a 9-percent increase over the 1985 average reported

Page 1 of 5

**University of Minnesota, U.S. Department of Agriculture, and Minnesota Counties Cooperating**

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sales prices. (Hennepin and Ramsey counties, Minneapolis and St. Paul, were excluded from this study as they have been in past years.)

Rural land market information has been collected by the university for the past 76 years. Since 1953, data for the annual study have been obtained from questionnaires mailed to brokers, farm managers, insurance agents, bank officers, county officials and others familiar with the rural real estate markets in their areas. The 1986 study is based on 1,402 questionnaires mailed, 698 returned, for a response rate of 50 percent.

"Monetarily, the most valuable farmland remains in the Southwest district," Hagen says, "with average per-acre sales prices reported at \$830." Trailing the Southwest were the Southeast at \$672, West Central at \$602, East Central at \$556, Northwest at \$411 and Northeast at \$220. The Southeast had the largest decline, 34 percent.

Estimated values in 1986 are lower than these sales figures. Estimated per-acre values averaged \$696 in the Southwest district, \$603 in the Southeast, \$511 in the West Central, \$418 in the Northwest, \$308 in the Northeast and \$220 in the East Central district. The Southeast had the largest decline--30 percent. The 1986 published estimated values are arrived at by comparing 1985 and 1986 estimates and then applying the percentage change to the estimated values published in 1985.

Survey respondents reported on 980 farmland sales during the first six months of 1986 compared with 796 in 1985. Yet, most of those

responding estimated that the number of farm sales had decreased in their communities since 1985. District and state average prices are calculated by multiplying each acre sold by its price, summing the proceeds and dividing by the total number of acres reported sold in an area.

Hagen and Raup point out one glimmer that some recovery could be coming in the depressed farm picture. They say that since 1980 the gap narrowed between the average price of farmland reported sold in the North Metro Fringe (Chisago, Isanti, Sherburne and Wright counties) bordering the seven-county Metro Area and in the South Fringe (Goodhue, McLeod, LeSueur, Rice and Sibley counties), the more agriculturally active of the two areas. Reported average farmland sales price per acre for the North Metro Fringe declined by 31 percent while the South Fringe declined by only 21 percent from 1985 to 1986. The price difference widened to \$125 per acre between the two subregions. The more agricultural area came back stronger.

Have farm prices bottomed out? Hagen and Raup don't attempt to answer that. In current dollars, the 1986 average sales price (\$650 per acre) is lower than in any year since 1975. Clearly, the gains made in the land boom that began in 1973 have been wiped out. Farmland prices began a steady decline in 1982. If the effects of general inflation are removed from the year-to-year values, the 1986 estimated value has dropped to the lowest level in 30 years. According to the study, the additional fall in values from 1985 to 1986 has eroded completely the gains in real value made in the relatively stable period from 1956 to 1972.

Who's buying farmland? The study identified three groups: 11 percent are sole-tract buyers, operating farmers who intend to farm land they purchased but who aren't expanding an existing holding; 17 percent are agricultural investor buyers, who are not adding to land already owned; and 72 percent are expansion buyers who are adding to existing holdings (whether investors or owner operators).

The rural real estate market remained local, with buyers living within 50 miles purchasing 90 percent of all land reported sold. Seventy-one percent of acreage reported sold went to buyers living within 10 miles of their purchase and 46 percent to buyers living within 5 miles.

For the second consecutive year, the Metro Area (excluding Hennepin and Ramsey, but including Anoka, Carver, Dakota, Scott and Washington counties of Minnesota Economic Development Region 11) had the highest average sales price for farmland--\$1,127 per acre. South Central Minnesota's Region 9, which had been the highest from 1975 through 1984, was second highest in 1986 with \$953 per acre.

As might be anticipated, financial reasons overwhelmed all other reasons for sales, accounting for 35 percent of the total. Nearly nine of ten of those sales related to mortgage foreclosure or cancellation of contract for deed. Another 17 percent of reported sales were to reduce the size of the seller's operation. If it is

assumed that these sales were influenced by financial stress, it would bring to 52 percent the proportion of sales for financial stress reasons, compared with 34 percent in 1985 and 16 percent in 1984. Death was the reason given for 12 percent of the 1986 sales, compared with 17 percent in 1985; and retirement was given as the reason for 18 percent of the sales, compared with 25 percent in 1985. "To leave farming" was the motivation given in 11 percent of the 1986 reported sales.

Changes in financing methods are reflected, too, in the study. The frequency of sales for cash has steadily increased since the decline in land prices began in 1981. In 1986, 36 percent of all acreage sold was cash-financed. Mortgages were at an all-time low, involving only 18 percent of the sales. Contracts for deed financed 46 percent of all land transferred. This continued the decline from 1980, when contract for deed financing reached an all-time high of 61 percent of all acres reported sold.

Hagen and Raup conclude: "The exact impacts of each of these and other factors may be impossible to identify, but in examining them generally we gain some insights in understanding how the farmland market is operating."

To obtain a copy of the study results, contact the Department of Agricultural and Applied Economics, 231 C.O.B., University of Minnesota, 1994 Buford Ave., St. Paul, MN 55108.

# # #

# news

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Minnesota Extension Service  
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University of Minnesota  
St. Paul, Minnesota 55108

Feb. 5, 1987

Source: Harold M. Pellett  
612/443-2460  
Writer: Sam Brungardt  
612/625-6797

Editors: To obtain a 35mm color transparency of 'Golden Lights' to use with this release, call David Hansen at (612) 625-7290.

## UNIVERSITY OF MINNESOTA RELEASES TWO NEW HYBRID AZALEAS

'Golden Lights' and 'Orchid Lights' are the newest color selections of the Northern Lights azalea hybrids to be introduced by the University of Minnesota's Agricultural Experiment Station. Wholesale nurseries have begun to propagate these new introductions. Fairly good supplies of 'Orchid Lights' will be available to gardeners in 1987, but no 'Golden Lights' plants will be available until 1988, says Harold M. Pellett, horticultural scientist who heads the experiment station's hardy woody ornamentals development program.

The parentage of 'Golden Lights' involves many species, some known, others unknown. 'Orchid Lights' is a cross between Rhododendron canadense and R. x Kosteranum (Mollis hybrid azalea) made by the late Albert G. Johnson.

'Golden Lights' matures at approximately 4 feet in height and spread. In late May, the plants are covered with 1-1/2- to

Page 1 of 2

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2-inch golden flowers. The flower buds can withstand -30 degrees F without injury in mid-winter. 'Golden Lights' has the added advantage of greater resistance to mildew than the other Northern Lights cultivars that have been introduced so far.

'Orchid Lights' is probably most notable for its compact growth habit. Plants mature at an average height of 3 feet and a spread of 3 to 4 feet. "'Orchid Lights' is an excellent choice for areas where a small-statured flowering shrub is needed to provide spring color," Pellett says.

The orchid-colored flowers of 'Orchid Lights' are 1-1/2 inches across. Their shape is unusual, intermediate between that of the two parents. Flower buds of 'Orchid Lights' can withstand -45 degrees F in mid-winter without injury. In central Minnesota, the flowers open in mid-May. 'Orchid Lights' plants are sterile and do not produce unsightly seed capsules.

Nurseries wishing to propagate "Golden Lights' or 'Orchid Lights' must participate in the Minnesota Nurserymen's Research Corporation royalty program. They should write to Pellett at the University of Minnesota Landscape Arboretum, Box 39, Chanhassen, MN 55317, or telephone him at (612) 443-2460.

# # #

BSS,L

NEXP1794

Feb. 5, 1987

Source: James M. Hagen  
612/625-8713  
Writer: Mary Kay O'Hearn  
612/625-2741

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**University of Minnesota, U.S. Department of Agriculture, and Minnesota Counties Cooperating**

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# # #

Feb. 5, 1987

Source: George Rehm  
612/625-4730  
Writer: Jack Sperbeck  
612/625-4730

## TEST SOIL BEFORE YOU BUY ZINC FERTILIZER

George Rehm gets a lot of questions about zinc fertilizer as he travels around Minnesota talking to farmers about fertilizer management.

Rehm, a soils specialist with the University of Minnesota's Extension Service, says many Minnesota farmers don't need zinc for top corn yields. But there are many soils in western Minnesota where farmers will get substantial yield increases by adding zinc to the fertilizer program.

Soils with high pH values and sandy soils with low organic matter content may require zinc. "The routine soil test for zinc is accurate and does a good job of predicting whether it's needed," Rehm says.

Research has shown that when zinc is needed, it can be either broadcast and incorporated before planting or applied in a starter at planting. If the soil test for zinc is low (less than .5 ppm), a broadcast application of 10 to 12 pounds actual zinc per acre should correct the deficiency for four to five years. When zinc in the soil is marginal (.5 to 1.0 ppm), a broadcast

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rate of 5 to 10 pounds of zinc per acre should correct the problem. Zinc will not be needed for corn production if the soil test value is greater than 1.0 ppm.

If zinc is applied in a starter fertilizer, the amount of zinc can be reduced to 2 pounds per acre for fields with a low soil test and 1 pound per acre where soil levels of zinc are marginal. Corn is the only major crop in Minnesota that will respond to zinc fertilization. Therefore, application in a starter fertilizer is the most cost effective way to apply this nutrient.

There are both liquid and dry sources of zinc. Research has shown that corn yield is not affected by the source of zinc used. "This means that cost becomes the major consideration in selecting a zinc source to use. The low-cost materials are just as effective as the high-priced products," Rehm says.

More information is available from county and area offices of the University of Minnesota's Extension Service.

# # #

AEA,BSS,CEO,V1,V4

NAGR1811

Feb. 5, 1987

Source: Roger Machmeier  
612/625-9733

Editor: Mary Kay O'Hearn  
612/625-2741

## CHECK WATER CONDITIONER CLAIMS BEFORE BUYING

Any claim that sounds too good to be true probably is. The comment comes from Roger Machmeier, an agricultural engineer with the University of Minnesota's Extension Service, as warning on water conditioning devices which might be making performance claims.

While many reliable businesses are selling reputable water conditioners in the state, there are also many basing their advertising solely on phenomena and testimonials, Machmeier says.

Some companies combine proven techniques in a single unit and advertise that unit as an entirely new technique. Often the same result can be accomplished with standard equipment commonly available at much less cost.

How do consumers know when they are buying quality water conditioning equipment? "Find out exactly how the water will be treated--what is added or removed," says Machmeier. He says to get those claims in writing. Agree with the salesperson on a method of testing over a specified length of time. Then, agree (also in writing ahead of time) on how a refund will be made if the equipment doesn't

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perform as anticipated.

Most companies will stand behind their equipment and guarantee customer satisfaction. It's prudent to ask questions, though, if the product is not sold through a local dealer.

Any water conditioning device that makes health claims is evaluated by the Minnesota Department of Health. Questions concerning health implications of water conditioners can be directed to that department at 717 Delaware St. Southeast, Minneapolis, MN 55440 or to one of the department's district offices.

The Better Business Bureau will investigate and ask for information to substantiate the claims of any water conditioning device. Should questionable performance claims arise, they should be reported to The Better Business Bureau of Minnesota, Inc., 1745 University Ave. West, St. Paul, MN 55104.

# # #

CEO,V1,V4

NHEC1814

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# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

Feb. 5, 1987

Source: George Rehm  
612/625-6210  
Writer: Jack Sperbeck  
612/625-4730

## FERTILIZER CAN BE GOOD INVESTMENT

Trying to cut crop production costs by eliminating fertilizers could be a mistake, according to a University of Minnesota soils specialist.

George Rehm, Minnesota Extension Service, said farmers need to know soil test levels for phosphate and potash (P and K) before cost effective fertilizer programs can be developed.

"There's a substantial return on investment if soil test values show the fertilizer is needed," he said. "But this return probably won't be seen if soil test values for P and K are in the high or very high range."

Rehm said producers can save on fertilizer dollars by using starter instead of broadcast P or K for corn and small grain production.

More information on fertilizer management is available from county and area offices of the Minnesota Extension Service.

# # #

AEA, BSS, CEO, V1, V4

NAGR1812

Page 1 of 1

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Feb. 12, 1987

Source: James J. Luby  
612/624-3453  
Writer: Sam Brungardt  
612/625-6797

Editors: Call (612) 625-6797 to obtain a 35mm color transparency or black-and-white print to use with this release.

## U OF M RELEASES EARLY-RIPENING 'FALL-FRUITING' RASPBERRY

The University of Minnesota's Agricultural Experiment Station has released Redwing, a new "fall-fruiting" (primocane-fruiting) red raspberry. Cooperating nurseries are propagating Redwing from virus-indexed stock, and plants should be available to the public this spring.

Redwing is intended to supplement or replace Heritage, the most widely grown, commercial, primocane-fruiting raspberry, in situations where earlier ripening is desired.

James Luby, horticultural scientist who heads the station's fruit development program, says, "Typically, Redwing begins to ripen 10 to 14 days before Heritage but several days after Fall Red. Although yields in southern Minnesota have been similar to or lower than those of Heritage because Redwing develops fewer fruiting lateral branches, the fall crop of Redwing ripens before killing frost at Grand Rapids and Staples, north of St. Cloud,

Page 1 of 2

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Minn., while that of Heritage does not.

"Also, we found that Redwing suffered less winter injury than Heritage in our trials at the North Central Experiment Station, Grand Rapids."

The size and color of Redwing fruit are similar to those of Heritage. The firmness and skin strength of Redwing are rated lower than Heritage but higher than Fall Red. Quality of frozen packs has usually been rated lower than Heritage because of less firmness. Redwing's flavor has been rated similar or slightly inferior to that of Heritage.

Redwing is moderate in its rootsuckering ability. The stout, productive primocanes grow to 6 to 7 feet, and a one-wire trellis is useful in keeping them upright. If the canes are not cut off after they have fruited, they will also produce a small crop during their second year at nodes that did not produce fruit the first year.

Although Redwing is susceptible to anthracnose, the disease has not been a problem when plantings are mowed each year. Narrow (12- to 18-inch-wide) rows and fungicide protection should be maintained if a crop is to be harvested from canes in their second year (floricanes), Luby says.

# # #

I, V1, V4

nagr1806

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

for County Agents

Feb. 12, 1987

Source: James J. Luby  
612/624-3453  
Writer: Sam Brungardt  
612/625-6797

## NEW U OF M RASPBERRY RIPENS EARLIER THAN HERITAGE

Minnesotans who live north of St. Cloud, where Heritage raspberry cannot be grown because it ripens too late in the fall, will be interested in Redwing, a new, "fall-fruited" (primocane-fruited) red raspberry that's been released by the University of Minnesota's Agricultural Experiment Station.

Redwing begins to ripen 10 to 14 days before Heritage and a few days after Fall Red. Yields of Redwing have been similar to or lower than those of Heritage in southern Minnesota because Redwing develops fewer fruiting lateral branches. However, the fall crop of Redwing ripens before killing frost at Staples and Grand Rapids while that of Heritage does not. Also, Redwing has suffered less winter injury than Heritage at Grand Rapids.

While the size and color of Redwing fruit are similar to those of Heritage, the firmness and skin strength are rated lower. Quality of the fruit when frozen has usually been rated lower than Heritage because of less firmness. Flavor has been rated similar or slightly inferior to that of Heritage.

Page 1 of 2

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Redwing's stout, productive primocanes grow 6 to 7 feet tall, and a one-wire trellis is useful in keeping them upright. If the canes are not cut off after they fruit the first year, they'll produce a small crop the following year also.

Redwing is susceptible to anthracnose, but the disease has not been a problem when plants are mowed each year. Narrow (12- to 18-inch-wide) rows and fungicide protection should be maintained if a crop is to be harvested from canes in their second year.

Redwing is being propagated by cooperating nurseries and will be available at some nurseries and garden centers in Minnesota this spring.

# # #

CEO

NAGR1805

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

Feb. 12, 1987

Source: James J. Luby  
612/624-3453  
Writer: Sam Brungardt  
612/625-6797

Editors: Call (612) 625-6797 to obtain a 35mm color transparency or black-and-white print to use with this release.

## **NEW RASPBERRY MAY REPLACE 'HERITAGE' IN NORTH**

The Minnesota Agricultural Experiment Station has announced the release of 'Redwing', a new "fall-fruiting" (primocane-fruiting) red raspberry. Nurseries are propagating the new cultivar, and limited quantities of stock will be available to commercial growers this spring.

James Luby, University of Minnesota horticultural scientist who heads the station's fruit development program, says 'Redwing' is intended to supplement or replace 'Heritage', the most widely grown, commercial, primocane-fruiting cultivar, in situations where earlier ripening is desired.

He says, "Typically, 'Redwing' begins to ripen 10 to 14 days before 'Heritage' but several days after 'Fall Red'. Although yields have been similar to or lower than those of 'Heritage', the fall crop of 'Redwing' ripens before killing frost at Grand Rapids and Staples, north of St. Cloud, Minn., while that of 'Heritage' does not. Also,

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we found that 'Redwing' suffered less winter injury than 'Heritage' in trials at Grand Rapids, in northern Minnesota."

'Redwing' originated from a 'Heritage' x 'Fall Red' cross made in 1969. It has been tested as MN 629 since 1974 in University of Minnesota trials at Excelsior, Grand Rapids, Morris and Staples, Minn., and in several other states by cooperating experiment stations. In the Minnesota trials, the plots were mowed each spring and only the primocane crop was harvested. Yields were similar to or less than 'Heritage' due to less development of fruiting lateral branches.

The size and color of 'Redwing' fruit are similar to those of 'Heritage'. The firmness and skin strength of 'Redwing' are rated lower than 'Heritage' but higher than 'Fall Red'. Quality of frozen packs has usually been rated lower than 'Heritage' because of less firmness. Flavor has been rated similar to or slightly inferior to that of 'Heritage'.

'Redwing' is moderate in its suckering ability, and the stout primocanes grow to a height of 6 to 7 feet. They begin to bloom when they have 38 to 42 nodes, and fruit on the top 11 to 15 nodes. A small crop is produced on the floricanes at nodes that did not produce fruit the first year.

Although 'Redwing' is susceptible to anthracnose, the disease has not been a problem when the planting is mowed each year. Rows should be narrow (12 to 18 inches wide) and fungicide protection should be

maintained if a florican crop is to be harvested. Spur blight has been observed, but it has not been a serious problem. 'Redwing' has performed well on heavy soils, but its response to Phytophthora has not been determined. Field counts of the aphid vector of red raspberry mosaic virus indicated that the aphid's preference for 'Redwing' is similar to its preference for 'Heritage' but less than for the known-susceptible cultivars 'Fall Red' and 'September'.

'Redwing' is being propagated from virus-indexed stock by cooperating nurseries under a royalty agreement with the Minnesota Nurserymen's Research Corporation. Nurseries that wish to propagate 'Redwing' should contact Luby at 254 Alderman Hall, University of Minnesota, St. Paul, MN 55108 or call him at (612) 624-3453.

# # #

BSS,L

NAGR1807

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

for County Agents

Feb. 12, 1987

Source: Raymond Arthaud  
612/624-9791  
Editor: Sam Brungardt  
612/625-6797

## COWS NEED ENOUGH NUTRIENTS DURING LAST THIRD OF PREGNANCY

Late gestation is a very important time nutritionally in a beef cow's annual production cycle. This is due in part to the increasing growth rate of the fetus, which may gain more than a pound a day during the last 45 days of pregnancy. The cow's body is preparing also for the lactation period, in which her reserves of energy and protein may be depleted to meet the demands of lactation and rebreeding.

Unless a cow is in above-average condition, it's generally recommended that she be gaining in condition the last few weeks before calving to ensure good maternal performance. The last three months of pregnancy may require supplementation. During late gestation, daily energy needs in terms of total digestible nutrients (TDN) increase about 2.0 pounds and daily protein requirements increase by 0.3 pound. Lack of energy is a problem more often than lack of protein.

A diet of high-quality hay that's at least 8 percent protein and 54 percent TDN is adequate for mature cows. However, pregnant yearling heifers need a diet that is at least 9 percent

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protein and 60 percent TDN during the last three to four months of pregnancy.

If possible, cows pregnant with their second calf should be fed as a separate group because they have higher nutrient needs than the mature cows in the herd. If not, they might be fed with the yearling heifers. These young cows need additional energy from a grain source because hay very seldom contains more than 55 percent TDN. One exception would be early-cut alfalfa, which may be as high as 60 percent TDN. Another exception would be when 15 to 30 pounds of corn silage is fed along with good-quality hay.

Often, cows that are on energy-deficient diets just before calving will be slow to show estrus after calving. Some may not return to estrus in time to be bred during the planned breeding season. In Minnesota, about 15 percent of the lactating beef cows do not get rebred for this reason.

# # #

CEO

NAGR1815

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

for County Agents

Feb. 12, 1987

Source: Dale Haggard  
612/625-4273  
Editor: Sam Brungardt  
612/625-6797

## VACCINATION HELPS PREVENT CALF SCOURS

Scours is one of the leading causes of death in young calves. Scours is caused by E. coli bacteria, corona virus, rota virus and other pathogens. Most E. coli infections start during the first or second day of life. Viral scours occur later, one to two weeks after birth. Vaccines are available that will minimize the incidence of these infections.

Scours vaccines are administered to cows before they calve and, when used properly, result in the production of antibodies. These antibodies are concentrated in the colostrum and will protect the calf after it consumes colostrum.

Follow the directions that accompany the scours vaccine that you use. The vaccines don't have the same label and may require different dosages at different times.

Maternal nutrition, prompt attention to the newborn calves and dry, clean calving quarters are all required if maximum effectiveness is to be had from a scours vaccine. Vaccination is only a part of scours prevention; it is not a replacement for good management practices.

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Part of the vaccine regimen is making sure that each calf gets the colostrum, preferably within two to three hours of being born. Vaccines are effective when properly used, but do little good if a calf doesn't receive the colostrum or proper care.

# # #

CEO

NAGR1816

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

for County Agents

Feb. 12, 1987

Source: John True  
612/625-9733  
Editor: Mary Kay O'Hearn  
612/625-2741

## COMPANY SEEKS ROTO BALER OWNERS

Farmers whose Allis-Chalmers "Roto Balers" are still in use are being sought by successor company Deutz-Allis Corporation which has free information on the machinery's safe operation.

"As these machines have aged and passed from one owner to another, safety shields, decals and operators manuals have become lost or obliterated. This can lead to a potential safety hazard for the operator" especially the person not thoroughly familiar with the machine, says company information sent to John True, University of Minnesota's Extension Service safety specialist and agricultural engineer.

To reduce the potential for roto baler operator injury, Deutz-Allis will send new safety decals and operator instructions free of charge to current users of these machines. Because the company does not know who those current users are, they are placing ads in national farm magazines urging owners to send them their names and addresses, and also contacting various agricultural organizations, such as Extension, asking them to

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pass along this information as well as asking the company's own dealers and field personnel to help locate them.

For their own safety, True suggests users of these balers send their names and addresses to Service Dept. "FD", Deutz-Allis Corporation, Box 933, Milwaukee, WI 53201-0933.

# # #

CEO

NAGR1817

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

for County Agents

Feb. 12, 1987

Source: Robert Jordan  
612/624-6784

Editor: Sam Brungardt  
612/625-6797

## TIME SPENT WITH EWES AT LAMBING IS WELL REWARDED

Lambing time is a busy and critical time for sheep producers. Extra help given during lambing will more than pay for itself through extra lambs saved.

Normal presentation for birth is the front feet of the lamb forward with its head resting between them. Labor occurs in two phases. The first stage, the cervical dilation period, takes two to six hours. The ewe is somewhat uneasy during this time. The second stage is when the lamb's head or feet enter the vagina and hard labor occurs. Actual delivery should require only about 30 minutes to two hours of hard straining. If a ewe is in hard labor for 30 to 60 minutes without any part of the lamb becoming visible, she may need assistance. Once hard labor or straining begins, a lamb can live for only about eight to ten hours inside the ewe. Prolapse can occur from prolonged labor or from excessive pulling on a lamb.

Before assisting, take some preparatory steps. If possible, place the ewe on her side on bales of hay or straw with her rear positioned so she can be examined easily. Remove dirty or excess wool from around the vaginal opening and wash the area thoroughly. Wash your hands and arms using a disinfectant, and apply a mild soap or a lubricant on them to avoid

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damaging tissue when inserting the hand.

Before you assist, determine the kind of presentation it is. Is it normal, leg back, head back, breech, twins together or some other abnormal situation?

The cause of most delivery problems is a lamb too large for the pelvic opening. If the presentation is normal, locate the lamb's legs and head. Grasp the legs and pull down gently toward the ewe's udder until the lamb is delivered.

If the head is much too big for the pelvic opening, you may have to guide it. Avoid introducing dirt, wool, straw or any other foreign material into the womb. Be sure the legs are both front legs, not one rear and one front leg. Also, be sure you're not grasping one leg of each lamb if twins are presented.

Veterinary assistance may be needed with abnormal presentations. For example, if only the tail can be felt, it's obvious that the lamb is coming breech. With assistance, the ewe can be held up by her hind legs and the lamb can be pushed forward until one of the flexed hind legs can be pulled back. The process can then be repeated for the other leg. Remember, pull down and behind the ewe's hind legs, never straight out.

When one or both both feet or the head is back or twins are presented together, it's very important to determine the problem and correct it inside before pulling the lamb(s).

# # #

Feb. 19, 1987

Sources: Curt Overdahl  
612/625-7017  
Tim Wagar  
507/285-8153  
Writer: Jack Sperbeck  
612/625-4730

## APPLY NITROGEN CAREFULLY TO REDUCE GROUNDWATER CONTAMINATION

Nitrate contamination of drinking water is more apt to be a problem in southeastern and parts of central Minnesota than in other parts of the state. But farmers throughout Minnesota can reduce the incidence of contaminated groundwater, in many cases with little extra expense.

"Avoid excessive additions of nitrogen to the soil," advises Curt Overdahl, soils specialist with the University of Minnesota's Extension Service. Nitrate contamination of groundwater is usually due to not giving enough "credit" to manure or plowdown crops like alfalfa, as opposed to nitrogen fertilizer, according to Tim Wagar, crops and soils area agent stationed in Rochester.

Overapplying manure on fields close to the barn is a problem that Wagar sees on some farms. "Typically, this is a situation where a farmer is milking 50 to 100 cows with only about 200 acres of cropland. A lot of manure is being accumulated and it

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may keep getting applied on the same fields year after year."

But Wagar knows many farmers who do a good job with manure management. "In many cases, all that's needed is some extra labor to haul and spread manure further from livestock buildings," he says.

"Nitrogen requirements can vary within fields. I know some farmers who will take up to four soil samples for a 40-acre field and tailor nitrogen applications accordingly."

One farmer who Wagar says does an excellent job of manure management is Jerry Davidson of Hokah in Houston County. "Jerry has a slurry system for his dairy herd," Wagar says. "He applies manure on every tillable acre of corn ground. He gets above-average yields, and the only fertilizer he buys is some starter."

Other efforts to prevent groundwater contamination with nitrates include contouring row crops, conservation tillage, and special crops monitoring for nitrogen status. Check with your county or area extension office for more information.

# # #

AEA,BSS,CEO,V1,V4

NAGR1821

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

## for County Agents

Feb. 19, 1987

Source: William J. Boylan  
612/624-1727  
Writer: Sam Brungardt  
612/625-6797

### ROMANOV SHEEP COULD PROVE VALUABLE TO MINNESOTA'S SHEEP INDUSTRY

Until recently, the principal flock of Romanov sheep in the United States was at a USDA research facility in Nebraska. Now, there's another flock of this Russian breed in the country--at the University of Minnesota.

The Romanov first arrived in North America in 1980, when the Canadian government imported stock. The animals were kept and increased in quarantine until last year, when the first breeding stock was released to Canadian breeders.

The University of Minnesota has imported six bred ewes and four rams from Canada. Animal scientist Bill Boylan, who heads a Minnesota Agricultural Experiment Station effort to increase the efficiency of sheep production, says the Romanov has been raised for its fur or pelt in Russia. The lambs are born black, with a silky hair coat over their wool. As they mature, the hair is shed and replaced by wool. Growing lambs sometimes appear gray as a result of the mixture of black and white fibers.

It appears that the Romanov's fertility, body size, growth and carcass characteristics are similar to those of the Finn,

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another northern "rat-tailed" breed. The Romanov may prove to be an alternative to the Finn and an additional germplasm source.

The Romanov has several characteristics that might be useful to Minnesota sheep producers. It's reputed to breed well out of season, and it has been utilized in Canada to get lambs every eight months. It's also prolific, with about 2.8 lambs born per ewe. Finally, there's its early sexual development; it matures at six months of age or younger, and ewe lambs first lamb when they're 11 to 12 months old.

University of Minnesota scientists will evaluate the Romanov's potential for crossbreeding systems and integrate it into out-of-season breeding experiments, which are evaluating various germplasm resources. Eventually, the scientists will cross the Romanov with the Finn to see whether the two breeds have a similar genetic basis for prolificacy, and they will conduct milking trials to evaluate its milking ability.

# # #

CEO

NAGR1831

Feb. 19, 1987

Source: William J. Boylan  
612/624-1727  
Writer: Sam Brungardt  
612/625-6797

Editors: Call Sam Brungardt (612/625-6797) to obtain a color transparency or black-and-white print to use with this story.

## UNIVERSITY OF MINNESOTA RESEARCH WILL EVALUATE ROMANOV SHEEP

Until recently, the principal flock of Romanov sheep in the United States was at the Roman L. Hruska U.S. Meat Animal Research Center in Nebraska. Now, with the importation of six bred ewes and four rams from Canada this February, there's another flock of this Russian breed in the country--at the University of Minnesota.

The Romanov, like the Finn or Finnish Landrace, is a northern "rat-tailed" breed of sheep. It first arrived in North America in 1980, when Agriculture Canada imported 14 ewes and five rams from France. The animals were kept in quarantine in Quebec for about five years, and the first Romanov stock was released to Canadian breeders last year.

University of Minnesota animal scientist William J. Boylan played a key role in the recent importation. He says, "We searched extensively in Canada to locate Romanov stock and finally located suitable animals in Manitoba and Saskatchewan."

Boylan, who heads a Minnesota Agricultural Experiment Station research

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"Based on the available information, it appears that the Romanov's fertility, body size, growth and carcass characteristics are similar to those of the Finn breed," Boylan says.

"We're interested in the Romanov for several reasons. One reason is its reputed ability to breed out of season. In Canada, it has been utilized to produce lambs every eight months or three lamb crops in two years. We're also interested in the Romanov because it's supposed to be prolific, with about 2.8 lambs born per ewe. Then, there's the Romanov's early sexual development. It matures at six months of age or younger, and ewe lambs first lamb when they're 11 to 12 months old."

Boylan says the research at the University of Minnesota will examine the Romanov's potential for use in the U.S. sheep industry. He explains: "We'll evaluate the Romanov's potential for crossbreeding systems and we'll integrate it into our out-of-season breeding experiments, which are evaluating various germplasm resources. After we've expanded our population, we'll cross the Romanov with the Finn and study the F<sub>1</sub> and F<sub>2</sub> offspring to see if the two breeds have a similar genetic basis

prolificacy. We also plan to conduct trials to evaluate the Romanov's milking ability."

Because of concerns over scrapie, direct imports of sheep from Europe into the United States are not allowed. "The ban on direct imports is a major constraint on the U.S. sheep industry because the industry is limited to the germplasm that's already here," Boylan says. "If, for instance, we want to improve the milking ability of our sheep, we're limited in how fast and how far we can go. That's why we're excited about getting this stock; the Romanov may prove to be an alternative to the Finn and an additional germplasm source."

Undoubtedly, Boylan has plans for his Romanovs. But which other breeds would he import if he could?

He replies, "For meat production, I'd like to get some of the Austrian Bergschaf [Mountain Sheep], which has a desirable carcass, a large litter size and breeds out of season, and the Ile de France, a white-faced meat breed which is similar to the Suffolk. To increase milking ability, I'd want to get stock of the East Friesian from Germany, the Chios from Greece and the Assaf, a new breed developed in Israel by crossing the Awassi and East Friesian that's reported to be the best milk sheep in the world."

# # #

BSS,0,S,V1

NEXP1830

# news

for County Agents

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

Feb. 19, 1987

Source: Allan Cattanach  
701/237-8881  
Editor: Sam Brungardt  
612/625-6797

## MEMBER OF HOUSE SUBCOMMITTEE TO SPEAK AT SUGAR BEET INSTITUTE

Rep. Charlie Rose of North Carolina, a member of the House subcommittee on cotton, rice and sugar, will speak on what's ahead for agriculture in Congress at this year's International Sugar Beet Institute.

The institute, the twenty-fifth of its kind, will be March 18 and 19 at the Winter Shows Arena in Crookston, Minn.

According to Allan Cattanach, institute committee chairman and extension sugar beet specialist for the University of Minnesota and North Dakota State University, 120 companies will have 50,000 square feet of exhibits on display from 8 a.m. to 5 p.m. both days.

A documentary on the early days of sugar beet growing in the Red River Valley will open the program at 9:45 a.m. each day of the institute.

The featured speaker on March 18 will be Wayne Humphreys, an Iowa farmer who is also a popular and humorous motivational speaker. Congressman Rose will speak on March 19. Other institute activities will include presentation of Idea Contest awards.

# # #

NWdist, SWdist

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NAGR1829

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Feb. 19, 1987

Sources: Curt Overdahl  
612/625-7017  
Tim Wagar  
507/285-8153  
Writer: Jack Sperbeck  
612/625-4730

## APPLY NITROGEN CAREFULLY TO REDUCE GROUNDWATER CONTAMINATION

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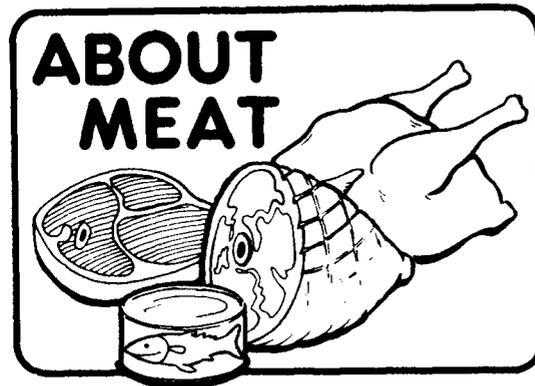
# # #

AEA,BSS,CEO,V1,V4

NAGR1821

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108  
(612) 373-0710

Feb. 19, 1987



Specialists with the University of Minnesota's Extension Service and Sea Grant programs answer questions about red meats, poultry and fish.

**Q:** Why does meat vary in flavor?

**A:** Marbling (flecks of fat in the lean) influences flavor; as marbling increases, flavor increases. Flavor becomes more intense as an animal grows older. Genetics of the animal can influence flavor, too. What an animal eats--especially in the case of pigs--can influence flavor. Aging of beef results in a "gamy" flavor. Finally, the degree to which meat is cooked and the cooking method used influence flavor. Broiled or fried pork will be browner and taste different than pork cooked with moist heat at a low temperature. The latter treatment can result in pork with a "piggy" flavor.--**Richard Epley, extension animal scientist, meats**

**Q:** Why are some cuts of beef tender while others are tough?

**A:** Tenderness is influenced by the age of the animal; an older animal is less tender. Also, muscles vary in tenderness; those used strictly for support (e.g., the tenderloin) tend to be more

(page 1 of 2)

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tender than muscles that are used for locomotion and support (e.g., the round or chuck). The genetics of an animal greatly influence tenderness. Aging beef for seven days or longer increases tenderness. Cooking method influences tenderness, too. Perhaps the factor that affects tenderness most is final internal temperature; generally, rare beef is more tender than well-done. What an animal is fed has little influence on tenderness.--**Richard Epley, extension animal scientist, meats**

**Q:** How long should I cook fish fillets when I substitute them in a recipe that calls for dressed, whole fish?

**A:** The "10-minute rule" is the best guide to cooking seafood by most methods other than microwaving. Cook fish for 10 minutes per inch of the thickest part of the fillet. Add 5 minutes' cooking time if you are cooking in foil or if the fillet is being cooked in a sauce. Double the cooking time if the fillet hasn't been defrosted. For microwaving, cook fillets in a covered dish for 4 minutes per pound. Rotate the dish after 2 minutes. Let the fish stand covered for 5 minutes after it has been microwaved.

--**Jeffrey Gunderson, area extension agent, marine fisheries**

If you have questions about red meats, poultry or fish, send them to About Meat, 136 ABLMS, University of Minnesota, 1354 Eckles Ave., St. Paul, MN 55108. Specialists will try to reply to all questions. Selected questions will appear in this column.

Feb. 26, 1987

Source: James J. Luby  
612/624-3453  
Writer: Sam Brungardt  
612/625-6797

Editors: Call (612) 625-6797 to obtain a 35mm color transparency or a black-and-white print to use with this release.

## SUMMERCRISP PEAR NEEDS NO RIPENING TO BE DELECTABLE

The University of Minnesota's Agricultural Experiment Station has released a new pear, Summercrisp, that is best eaten without ripening, while the flesh is firm and crisp. It is being propagated by cooperating nurseries and plants will be sold by some nurseries and garden centers this spring.

Jim Luby, horticultural scientist in charge of the station's fruit improvement program, says, "Whereas most pears should be ripened to obtain the best flavor and aroma, this is one that should not be allowed to ripen on or off the tree or else grit cells, a browning of the flesh around the seeds and a strong aroma will become apparent."

Luby says that Summercrisp has a texture similar to that of an Asian or "apple" pear when it is eaten unripened, although not as aromatic. The new cultivar, he adds, was released for home garden use in cold climates, where most pears survive poorly and often do not fruit. For years, it has been among the hardier pears in the University of Minnesota's collection.

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Summercrisp blooms annually at the same time as Patten and Parker and two to four days earlier than Luscious. It requires cross-pollination, Luby says, but it should be useful also as a hardy pollinizer for other pear cultivars because it produces a lot of viable pollen.

Summercrisp fruit are 3 to 4 inches long and 2-1/2 to 3-1/2 inches in diameter. They are green, with a red blush and prominent red spots or lenticels. In the Twin Cities area, Summercrisp is ready for harvest between Aug. 10 and Aug. 15, about five weeks before Luscious, Parker and Patten. The fruit should be picked while the flesh is still firm and before any yellow color develops. They should be refrigerated immediately after they are picked. Luby says he's been able to keep fruit harvested at this stage in good condition in refrigerated storage for as long as six weeks. He adds that Summercrisp is not suitable for canning because the grit cells become more detectable when the fruit is processed.

Mature trees of Summercrisp grow 18 to 25 feet tall. In 20 years of testing, Summercrisp has exhibited no symptoms of fireblight, even though other cultivars growing near it were infected. Pear scab has been observed on the fruit, but usually the foliage and fruit have been free of disease and inspect pests even without the use of pesticides.

# # #

Feb. 26, 1987

Source: George Rehm  
612/625-6210  
Writer: Jack Sperbeck  
612/625-4730

## **SULFUR FERTILIZER FOR CORN IS NEEDED ONLY ON SANDY SOILS**

You don't need sulfur fertilizer for corn unless you're growing corn on sandy soils.

"Sulfur is not needed in fertilizer programs for corn production throughout Minnesota," says George Rehm, soils specialist with the University of Minnesota's Extension Service. Rehm says the university's Agricultural Experiment Station has done research with sulfur at several Minnesota locations in recent years. "The use of sulfur has not consistently increased corn yields unless soils were sandy," he says.

For irrigated sandy soils, research completed in 1986 showed that split applications of sulfur fertilizer were not necessary for corn production. "Several methods of applying sulfur fertilizer were compared, but none was better than using sulfur in a starter fertilizer," Rehm says.

Researchers also determined the rate of sulfur needed to produce the highest yield. "A rate of 12 pounds of sulfur per acre in a starter was the most economical," Rehm says.

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Organic matter is the major reservoir of sulfur in soils; about 95 percent of all sulfur found in soils is in the organic matter. Sulfur is released for use by plants when the organic matter is broken down during the growing season.

"The organic matter content of most soils in Minnesota is high," Rehm says. "These soils are capable of supplying adequate amounts of sulfur for crop production throughout the growing season."

Not applying sulfur unless you're farming sandy soils is just one of many things you can do to keep fertilizer costs low without reducing yields.

# # #

AEA,BSS,CEO,V1,V4

NAGR1837

Feb. 26, 1987

Source: James J. Luby  
612/624-3453  
Writer: Sam Brungardt  
612/625-6797

Editors: Call (612) 625-6797 to obtain a 35mm color transparency or a black-and-white print to use with this release.

## SUMMERCRISS PEAR NEEDS NO RIPENING TO BE DELECTABLE

The University of Minnesota's Agricultural Experiment Station has released a new pear, Summercrisp, that is best eaten without ripening, while the flesh is firm and crisp. It is being propagated by cooperating nurseries and plants will be sold by some nurseries and garden centers this spring.

Jim Luby, horticultural scientist in charge of the station's fruit improvement program, says, "Whereas most pears should be ripened to obtain the best flavor and aroma, this is one that should not be allowed to ripen on or off the tree or else grit cells, a browning of the flesh around the seeds and a strong aroma will become apparent."

Luby says that Summercrisp has a texture similar to that of an Asian or "apple" pear when it is eaten unripened, although not as aromatic. The new cultivar, he adds, was released for home garden use in cold climates, where most pears survive poorly and often do not fruit. For years, it has been among the hardier pears in the University of Minnesota's collection.

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Summercrisp blooms annually at the same time as Patten and Parker and two to four days earlier than Luscious. It requires cross-pollination, Luby says, but it should be useful also as a hardy pollinizer for other pear cultivars because it produces a lot of viable pollen.

Summercrisp fruit are 3 to 4 inches long and 2-1/2 to 3-1/2 inches in diameter. They are green, with a red blush and prominent red spots or lenticels. In the Twin Cities area, Summercrisp is ready for harvest between Aug. 10 and Aug. 15, about five weeks before Luscious, Parker and Patten. The fruit should be picked while the flesh is still firm and before any yellow color develops. They should be refrigerated immediately after they are picked. Luby says he's been able to keep fruit harvested at this stage in good condition in refrigerated storage for as long as six weeks. He adds that Summercrisp is not suitable for canning because the grit cells become more detectable when the fruit is processed.

Mature trees of Summercrisp grow 18 to 25 feet tall. In 20 years of testing, Summercrisp has exhibited no symptoms of fireblight, even though other cultivars growing near it were infected. Pear scab has been observed on the fruit, but usually the foliage and fruit have been free of disease and inspect pests even without the use of pesticides.

# # #

# news

for County Agents

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

Feb. 26, 1987

Source: James J. Luby  
612/624-3453  
Writer: Sam Brungardt  
612/625-6797

## COLD-HARDY, EARLY-SEASON PEAR IS NOW AVAILABLE

Minnesotans will now be able to grow a pear that is ready to pick early in the season. The new pear, Summercrisp, has been released by the University of Minnesota's Agricultural Experiment Station, and trees will be sold by some Minnesota nurseries and garden centers this spring.

Summercrisp's name refers to its season of harvest; it is ready to harvest between Aug. 10 and Aug. 15 in the Twin Cities area, about five weeks before Luscious, Patten and Parker.

The name also refers to the fact that this pear is best eaten unripe, while the flesh is firm and crisp. Most pears should be ripened for optimum flavor and aroma, but Summercrisp should not be allowed to ripen, either on or off the tree. Otherwise, grit cells, a browning of the flesh around the seeds and a strong aroma will become apparent. Instead, Summercrisp should be picked while the flesh is still firm and before any yellow color develops. And, the fruit should be refrigerated immediately after they are picked. When treated in this manner, Summercrisp has a texture similar to that of an Asian or "apple" pear (though

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it's not as aromatic) and can be stored in refrigerated storage for as long as six weeks. Summercrisp is not suitable for canning because the grit cells become more detectable when the fruit is processed.

Summercrisp fruit are 3 to 4 inches long and 2-1/2 to 3-1/2 inches in diameter. They are green, with a red blush and prominent, red spots (lenticels).

Over the years, Summercrisp has been one of the hardier pears in the University of Minnesota's collection. Mature trees grow 18 to 25 feet tall. In 20 years of testing, Summercrisp has never exhibited any symptoms of fireblight, even though other pears growing near it were infected. Usually, the foliage and fruit are free of disease and insect pests, even without the use of pesticides. However, pear scab has been observed on the fruit.

Summercrisp blooms at the same time as Patten and Parker and two to four days earlier than Luscious. It requires cross-pollination, but it should also be useful where a hardy pollinizer for other pear cultivars is needed.

# # #

CEO

NAGR1808

Feb. 26, 1987

Source: James J. Luby  
612/624-3453  
Writer: Sam Brungardt  
612/625-6797

Editors: Call (612) 625-6797 to obtain a 35mm color slide or black-and-white print to use with this release.

## MINNESOTA STATION INTRODUCES HARDY, EARLY-SEASON PEAR

'Summercrisp' is a new pear that the Minnesota Agricultural Experiment Station has introduced for use in cold climates, where most pear cultivars survive poorly and often do not fruit. Its name connotes its early harvest season and the fact that the fruit is best eaten while the flesh is firm and crisp.

The parentage of 'Summercrisp' is unknown. It was among seedlings that were received at the University of Minnesota Fruit Breeding Farm in 1933 from John Gaspard of Caledonia, Minn.

'Summercrisp' was tested at Excelsior, Grand Rapids and Morris, Minn., as well in several other states as Gaspard #5 and N33201. Based on field observations and laboratory freezing tests, it is among the hardier pears in the University of Minnesota collection, says James Luby, horticultural scientist who heads the station's fruit development program.

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He says, "'Summercrisp' is a pear for home gardens that flowers annually at the same time as 'Patten' and 'Parker' and two to four days earlier than 'Luscious'. It requires cross-pollination, but because it produces abundant viable pollen, it should be useful as a hardy pollinizer for other pear cultivars."

'Summercrisp' bears its pyriform fruit on numerous spurs. The fruit are 3 to 4 inches long and 2-1/2 to 3-1/2 inches in diameter. They have prominent, red lenticels and a red blush over a green ground cover. At Excelsior, Minn., they are ready for harvest between Aug. 10 and Aug. 15, about five weeks before those of 'Luscious', 'Parker' and 'Patten'. 'Summercrisp' fruit should be picked while the flesh is still firm and before any yellow color develops.

Luby says, "Whereas most pears should be ripened to obtain the best flavor and texture, this is one that should not be allowed to ripen on or off the tree or else grit cells, a browning of the flesh around the seeds and a strong aroma will become apparent.

"The fruit should be refrigerated immediately after they are harvested. We've been able to keep them in good condition in refrigerated storage for six weeks. When the fruit is eaten unripened, the flesh has a texture similar to that of an Asian or "apple" pear, although it's not as aromatic. 'Summercrisp' is

not a desirable pear for canning because the grit cells become more detectable when the fruit is processed."

Mature trees of 'Summercrisp' grow 18 to 25 feet tall. In 20 years of testing, 'Summercrisp' exhibited no symptoms of fireblight even though other cultivars in the same block were infected. Pear scab has been observed on the fruit, but usually the foliage and fruit have been free of disease and insect pests even without the use of pesticides.

'Summercrisp' is being propagated by cooperating nurseries under a royalty agreement with the Minnesota Nurserymen's Research Corporation, and trees will be available to the public in 1987. Nurseries wishing to propagate the cultivar should contact Luby at 254 Alderman Hall, University of Minnesota, St. Paul, MN 55108 or call him at (612) 624-3453.

# # #

Feb. 26, 1987

Source: George Rehm  
612/625-6210  
Writer: Jack Sperbeck  
612/625-4730

## SULFUR FERTILIZER FOR CORN IS NEEDED ONLY ON SANDY SOILS

You don't need sulfur fertilizer for corn unless you're growing corn on sandy soils.

"Sulfur is not needed in fertilizer programs for corn production throughout Minnesota," says George Rehm, soils specialist with the University of Minnesota's Extension Service. Rehm says the university's Agricultural Experiment Station has done research with sulfur at several Minnesota locations in recent years. "The use of sulfur has not consistently increased corn yields unless soils were sandy," he says.

For irrigated sandy soils, research completed in 1986 showed that split applications of sulfur fertilizer were not necessary for corn production. "Several methods of applying sulfur fertilizer were compared, but none was better than using sulfur in a starter fertilizer," Rehm says.

Researchers also determined the rate of sulfur needed to produce the highest yield. "A rate of 12 pounds of sulfur per acre in a starter was the most economical," Rehm says.

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Organic matter is the major reservoir of sulfur in soils; about 95 percent of all sulfur found in soils is in the organic matter. Sulfur is released for use by plants when the organic matter is broken down during the growing season.

"The organic matter content of most soils in Minnesota is high," Rehm says. "These soils are capable of supplying adequate amounts of sulfur for crop production throughout the growing season."

Not applying sulfur unless you're farming sandy soils is just one of many things you can do to keep fertilizer costs low without reducing yields.

# # #

AEA,BSS,CEO,V1,V4

NAGR1837

Feb. 26, 1987

Source: John True  
612/625-9733

Editor: Mary Kay O'Hearn  
612/625-2741

## AG CHEMICALS NEED CAREFUL HANDLING

Extra caution when handling and applying chemicals is necessary, according to John True of the University of Minnesota. Chemicals are beneficial products in agricultural production, he said, but without proper use, these chemicals may cause serious injury and damage the environment.

True, an agricultural engineer with the Minnesota Extension Service, has these suggestions for farmers:

--Always read and follow manufacturers' instructions for storage and application. Instruct all workers in proper use of the chemicals.

--More is not better; use only the recommended amount. Excessive dosage could result in residue on crops, increased chance of water pollution from runoff, even contaminated milk or meat.

--Select the right chemical for the job. If there is a choice, select the one that is least toxic or polluting.

--Wear personal protective equipment--gloves, respirator, eye protection--as recommended by the manufacturer.

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--Always keep chemicals locked up and out of children's reach. Do not allow youngsters to play in areas where chemicals are used.

--Store chemicals in their original containers and dispose of empty containers properly.

# # #

CEO,V1,

NAGR1818

March 5, 1987

Source: Jon Geadelmann  
612/625-0260  
Writer: Jack Sperbeck  
612/625-4730

## HOW ACCURATE ARE CORN HYBRID MATURITY RATINGS?

There's a chance the relative maturity ratings on the corn hybrids you plant may be off a bit.

But farmers shouldn't worry about maturity ratings being inaccurate, says Jon Geadelmann, researcher with the University of Minnesota's Agricultural Experiment Station. He found that 22 percent of the hybrids tested in 1986 were incorrectly labeled for relative maturity. Sixty-seven of the 304 new hybrids tested exceeded their checks by more than 4 percent grain moisture.

"When hybrid ratings are off, they're almost always labeled slightly early," says Geadelmann. "Let's say a hybrid is in the 95- to 100-day relative maturity range, but a bit closer to 100. But if it's labeled 95-day, it compares better to 'true' 95-day hybrids since yields increase as relative maturity goes up."

The 22-percent violation in 1986 compares to 29 percent in 1985, 7 percent in 1984 and 10 percent in 1983. Geadelmann and colleague Bob Peterson have been field testing newly introduced hybrids since 1972. They report the results to the Minnesota Department of Agriculture, which enforces correct relative

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maturity labeling. The seed corn companies then relabel affected hybrids and sell them under the correct maturity rating.

"Correct labeling saves Minnesota farmers many thousands of dollars in drying fuel costs or delayed harvest," Geadelmann says. Late-maturing hybrids are more susceptible to damage by frost, and wet grain usually requires fuel for drying. Hybrids that mature earlier than expected may suffer increased field loss before or during harvest.

# # #

AEA,BSS,CEO,F,V1,V4

NAGR1845

March 5, 1987

Source: George Rehm  
612/625-6210  
Writer: Jack Sperbeck  
612/625-4730

## EARLY SPRING IS GOOD TIME FOR SOIL SAMPLES

All signs point to an early spring--and a good time to collect soil samples if you didn't get it done last fall.

Soil testing is a job that's easily put off in the fall. But soil testing "is the most important management tool that farmers can use in arriving at cost effective fertilizer recommendations," says George Rehm, soils specialist with the University of Minnesota's Extension Service.

Minnesota farmers benefit two ways from using results of analysis of soil samples. First, the results show rates of plant nutrients that must be added in a fertilizer program to get the most cost efficient yield.

Soil test results also show what nutrients are supplied in adequate amounts by the soil and aren't needed in a fertilizer program.

Several soil testing laboratories are available. "Farmers frequently ask which one is best. The best advice is to choose a laboratory that uses research data collected in Minnesota as a basis for its fertilizer recommendations," Rehm says.

Sample bags and information sheets are available from county extension offices.

# # #

AEA,BSS,CEO,F,V1,V4

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NAGR1843

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March 5, 1987

Source: Warren Sifferath  
612/625-5283  
Writer: Anne Lewis  
612/625-9251

## **BEEF, PORK HEALTHIER, LEANER THAN MANY PEOPLE THINK**

If you've passed up pork and beef and bought chicken instead, thinking red meat is bad for your health, guess again. Pork and beef are much leaner and more nutritious than you might think.

Recent U.S. Department of Agriculture studies show that beef and pork are much leaner than in earlier years and they have a lot of nutritional value. Red meat can add good nutrition as well as flavor to your meals if you choose lean cuts and cook them in calorie-conscious ways.

In addition to raising leaner animals, the pork and beef industries are trying to respond to other consumer wishes. To examine the future of the red meat industry, the Minnesota Extension Service sponsored recently conferences for pork and beef producers and creditors at St. Paul, Montevideo, Fulda and Austin.

"Beef and pork producers are working hard to let consumers know that red meat can hold its own against chicken and turkey," says Warren Sifferath, assistant extension marketing specialist.

Three ounces of cooked, lean beef or pork has 192 and 198 calories, respectively, less than the same amount of chicken, battered and fried with the skin on. Three ounces of the dark meat of turkey, skinless, has 174

calories, while skinless, baked chicken has 144 calories.

Pork and beef have shaped up and slimmed down in the past couple of decades. According to the National Pork Producers Council, cuts like the loin, tenderloin and fresh ham have up to 54 percent less fat than 20 years ago. A 3-ounce portion of center pork loin contains 13 grams of fat and 196 calories today, compared to 28 grams of fat and 333 calories in 1963.

Three ounces of cooked, lean beef provides 45 percent of the recommended daily allowance of protein for men consuming 2,000 calories per day, while pork provides 41 percent; fried chicken, 34 percent; and roast chicken, 44 percent.

Beef is very high in vitamin B-12, iron and zinc compared to other meats and poultry, and pork has a higher proportion of these nutrients than either roasted or fried chicken. More than 60 percent of the iron in beef is "heme" iron that is more usable than the type of iron found in other foods.

Pork has 79 mg of cholesterol per 3-ounce cooked portion, with beef, fried chicken and roast chicken close behind at 73, 74 and 76 mg, respectively. Less than 48 percent of the fat in beef is saturated.

Joanne Randen, home economist for the Minnesota Pork Producers Association, lists these pork cuts as the leanest: tenderloin (141 calories), leg roast (187), center loin chop (196), center loin roast (204), center rib and top loin roast (208), top loin chop (219), and sirloin roast or cutlet (221).

Leanest cuts of beef, according to the National Live Stock and Meat Board, based on calories per 3-ounce, cooked, lean serving, are: eye round roast (157), top round steak (165), very lean cubed steak (166), tip roast (170), top sirloin steak (185), top loin steak (195), flank steak (196) and tenderloin steak (200). Ground beef that is 80 percent lean has 238 calories per 3-ounce, cooked portion.

You can cut calories from lean cuts even more by trimming visible fat. Also, substitute low- for high-fat ingredients in recipes---tomato juice for tomato sauce; skim milk for whole milk; low-fat yogurt for sour cream; cottage cheese for cream cheese; herbs and spices for butter or margarine, heavy sauces or gravies. Remember to cut down on the use of fat or sugar, too.

When baking, broiling or roasting meat, use a rack to keep meats above the drippings. Panbroil rather than panfry, using no extra fat and pouring drippings off as the meat cooks. Consider braising meats---cooking browned meat slowly in a covered pan with a little liquid. After you make soup or stew, refrigerate it until the fat congeals on top and you can skim it off.

Calorie-conscious cooks in Minnesota can obtain recipes from the Minnesota Pork Producers' Association, 216 E. Main, Albert Lea, MN 56007 and from the Minnesota Beef Council, 2950 Metro Dr., Suite 111, Minneapolis, MN 55420. Include a stamped, self-addressed, legal-size envelope with your request.

# # #

March 5, 1987

Source: Steven Katovich  
612/624-5380  
Writer: Mary Kay O'Hearn  
612/625-2741

Editors: Call Mary Kay O'Hearn (612/625-2741) to obtain a black-and-white photo to use with this release

## UPPER MIDWEST RED PINE ORCHARDS MAY HAVE NEW INSECT PESTS

Two insects of economic impact in conifer orchards in the South and West are being watched in red pine seed orchards in southern Wisconsin and on red pine in St. Paul, Minn., as a result of a University of Minnesota entomology graduate student's research.

Steven Katovich, whose studies are directed by Herbert M. Kulman, entomologist with the Minnesota Agricultural Experiment Station, has been following two closely related insects for the last two years: Leptoglossus corculus, the southern pine seed bug, and Leptoglossus occidentalis, the western pine seed bug. Katovich found a high population of L. corculus and a few L. occidentalis west of Madison, Wisc., in the Spring Green area, in summer 1985 and a small number of L. occidentalis on red pine growing on the University of Minnesota's St. Paul campus last summer. No previous records of either insect in Wisconsin or Minnesota were known.

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The insects are easily seen, Katovich says. About 1-1/2 inches long, they are brown with some dots and banding and a narrow head. They belong to the same order as the boxelder bug. "They are very active and easy to find on warm summer days and noisy as they fly," Katovich says.

Unless these insects are noticed while on a pine cone, the damage they do isn't visible and can only be detected through X-ray. Using their mouthparts, they inject fluid into the seed, then suck out the contents, destroying the seed.

Financial loss is possible should the insects become a serious problem in seed orchards, such as those in Wisconsin, where the Department of Natural Resources has made large investments in orchards. The department has established seed orchards of genetically superior, well-formed and fast-growing red pine to improve tree stock in the state. Minnesota doesn't have the producing seed orchards which Wisconsin has, but as these are being developed, alertness to the presence of these insects is important.

The L. occidentalis seen in St. Paul is well known in Wyoming and Montana. Katovich says there is speculation that the insect is spreading north and east as more pine shelterbelts are planted in Nebraska and Iowa. "We don't know if it can overwinter here," he says.

# # #

March 5, 1987

Source: Donald W. Bates  
612/625-9733  
Editor: Mary Kay O'Hearn  
612/625-2741

## REVISED BEEF HOUSING, EQUIPMENT HANDBOOK IS AVAILABLE

The revised Beef Housing and Equipment Handbook, MWPS-6, has information that could help farmers improve, modernize and expand facilities for a more profitable beef operation.

The handbook can be obtained for \$7 plus 42 cents tax from Extension Agricultural Engineering, Department of Agricultural Engineering, 201 Agricultural Engineering, 1390 Eckles Ave., University of Minnesota, St. Paul, MN 55108. Checks should be made payable to the University of Minnesota.

Agricultural engineers from throughout the North Central Region contributed to this, the fourth edition of the handbook, which discusses design and operation of buildings and equipment necessary for an efficient beef operation.

New features of this edition are chapters on water and waterers and fences and gates. A new summary chapter on planning data incorporates much of the planning information that was in the older version of MWPS-6.

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The 136-page handbook has extensively revised chapters on farmstead planning, building construction and materials, ventilation, cow-calf and cattle handling facilities and manure management. Chapters on cattle feeding facilities, feed storage, processing and handling, and utilities have been brought up to date.

# # #

A,BSS,CEO,V1

NAGR1839

March 5, 1987

Source: John True  
612/625-9733  
Editor: Mary Kay O'Hearn  
612/625-2741

## A DOZEN NEVERS--FOR SAFETY WITH GASOLINE

Spring thoughts of boats, motors and lawnmowers, bring gasoline into the picture. But this fuel gives off potentially explosive vapors that are heavier than air. They can flow along the floor or even down stairs--invisibly--dangerously.

John True, agricultural engineer with the University of Minnesota's Extension Service, has a dozen NEVERS to suggest when it comes to dealing with gasoline:

1. Never use gasoline to clean paint brushes. Any hardware store sells better paint-removing solvents that present much less of a fire hazard.

2. Never store gasoline in the wrong container such as a glass bottle. A safety can has a broad base, is difficult to tip and a spring-loaded cap helps prevent the release of flammable vapors. Look for the UL or FM label on the container.

3. Never smoke while using gasoline. A distant flame or spark can ignite flammable vapors.

4. Never store gasoline near an ignition source. Water heaters are a common ignition source for gasoline fires.

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Invisible vapors from gasoline are heavier than air and travel along the ground. The best storage spot for gasoline is a building separated from the living area, such as a detached garage or shed.

5. Never use gasoline to wash floors or to strip wax. A build-up of explosive vapors can result.

6. Never flip a switch where there is a gasoline smell. It takes only the smallest spark to ignite gasoline vapors. The arc from an electric switch or motor is enough. Ventilate the area with the gasoline smell, but don't create any ignition sources.

7. Never mistake gasoline for some other product. Gasoline should always be stored in a properly marked safety can out of reach of those too young to read and heed labels. Never keep large supplies on hand.

8. Never use gasoline to clean clothes. It is a fuel not a cleaner. Gasoline-soaked clothes have been known to cause washing machines to explode.

9. Never use gasoline to start a fire. Flames can creep up the can, triggering an explosion.

10. Never leave a gasoline can uncapped. Vapors are formed wherever gasoline is stored in tanks and cans, lawn mowers and motorcycles and these vapors are a potential hazard.

11. Never use gasoline in a kerosene heater as it will burn out of control. Never store gasoline in cans that might be confused with other fuel containers.

12. Never refuel a lawnmower or snowblower while the motor is hot. Always shut the motor off and let it cool first. Fill fuel tanks outside so vapor won't build up. Tanks should be emptied in the off season.

# # #

BSS,CEO,V1,V4

NAGR1842

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

March 5, 1987

Source: Earl Fuller  
612/625-6760  
Writer: Jack Sperbeck  
612/625-4730

## CROP BUDGETS ARE AVAILABLE AT EXTENSION OFFICE

A new publication called "What to Grow in 1987" is available from the \_\_\_\_\_ County Extension Office.

The publication gives crop budgets for this part of the state. The crop budgets assume normal weather and growing conditions.

Budgets should be modified to fit specific farm situations.

# # #

AEA,CEO

NAGR1844

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# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

March 5, 1987

Source: George Rehm  
612/625-6210  
Writer: Jack Sperbeck  
612/625-4730

## EARLY SPRING IS GOOD TIME FOR SOIL SAMPLES

All signs point to an early spring--and a good time to collect soil samples if you didn't get it done last fall.

Soil testing is a job that's easily put off in the fall. But soil testing "is the most important management tool that farmers can use in arriving at cost effective fertilizer recommendations," says George Rehm, soils specialist with the University of Minnesota's Extension Service.

Minnesota farmers benefit two ways from using results of analysis of soil samples. First, the results show rates of plant nutrients that must be added in a fertilizer program to get the most cost efficient yield.

Soil test results also show what nutrients are supplied in adequate amounts by the soil and aren't needed in a fertilizer program.

Several soil testing laboratories are available. "Farmers frequently ask which one is best. The best advice is to choose a laboratory that uses research data collected in Minnesota as a basis for its fertilizer recommendations," Rehm says.

Sample bags and information sheets are available from county extension offices.

# # #

AEA,BSS,CEO,F,V1,V4

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NAGR1843

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March 5, 1987

Source: Jon Geadelmann  
612/625-0260  
Writer: Jack Sperbeck  
612/625-4730

## HOW ACCURATE ARE CORN HYBRID MATURITY RATINGS?

There's a chance the relative maturity ratings on the corn hybrids you plant may be off a bit.

But farmers shouldn't worry about maturity ratings being inaccurate, says Jon Geadelmann, researcher with the University of Minnesota's Agricultural Experiment Station. He found that 22 percent of the hybrids tested in 1986 were incorrectly labeled for relative maturity. Sixty-seven of the 304 new hybrids tested exceeded their checks by more than 4 percent grain moisture.

"When hybrid ratings are off, they're almost always labeled slightly early," says Geadelmann. "Let's say a hybrid is in the 95- to 100-day relative maturity range, but a bit closer to 100. But if it's labeled 95-day, it compares better to 'true' 95-day hybrids since yields increase as relative maturity goes up."

The 22-percent violation in 1986 compares to 29 percent in 1985, 7 percent in 1984 and 10 percent in 1983. Geadelmann and colleague Bob Peterson have been field testing newly introduced hybrids since 1972. They report the results to the Minnesota Department of Agriculture, which enforces correct relative

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maturity labeling. The seed corn companies then relabel affected hybrids and sell them under the correct maturity rating.

"Correct labeling saves Minnesota farmers many thousands of dollars in drying fuel costs or delayed harvest," Geadelmann says. Late-maturing hybrids are more susceptible to damage by frost, and wet grain usually requires fuel for drying. Hybrids that mature earlier than expected may suffer increased field loss before or during harvest.

# # #

AEA,BSS,CEO,F,V1,V4

NAGR1845

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

March 5, 1987

Source: Gerald Miller  
612/625-7098  
Shirley Baugher  
612/625-1254  
Writer: Diedre Nagy  
612/625-0288

## **U of M RECEIVES NUTRITION EDUCATION GRANT FROM W. K. KELLOGG**

The W. K. Kellogg Foundation of Battle Creek, Mich., has awarded nearly \$1.2 million to the University of Minnesota for educational programs in human nutrition. The programs will involve cooperative classroom and extension teaching in the health sciences, agriculture and home economics.

The three-year grant sets up an integrated program involving the university's College of Agriculture, College of Home Economics, Medical School, School of Public Health and Minnesota Extension Service. The grant will, in part, finance fellowships to allow further study of nutrition by physicians and other health care professionals. It will finance a master's degree program in clinical nutrition for nutritionists as well as nutrition courses for medical students and resident physicians.

Terms of the grant call for a series of at least four nutrition forums for medical and nutrition professionals

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featuring noted authorities. Videotapes and proceedings resulting from these forums will be used by Minnesota Extension Service specialists and county agents to educate the general public as well as by health care personnel in rural areas of the state.

Chief investigator for the grant is Allen S. Levine. He is a faculty member in the Department of Food Science and Nutrition and the Medical School as well as associate director of research at the Veterans Administration medical center. Extension specialist Edward Blonz will coordinate the extension components of the effort through the Department of Food Science and Nutrition, which is part of both the university's College of Agriculture and its College of Home Economics.

The W.K. Kellogg Foundation has distributed more than \$840 million in aid to support programs in agriculture, education and health. It is among the largest private philanthropic organizations in the world with programs in Latin America, the Caribbean, the United States and several other countries.

# # #

CEO,H,V1,V4,Sel.Media

NHEC1847

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

March 5, 1987

Source: Juanita Reed  
612/625-9231  
Editor: Sam Brungardt  
612/625-6797

## MINNESOTA 4-H'ERS WIN AWARDS IN MBLA CONSUMER EDUCATION CONTEST

The Ramsey County 4-H Animal Science Developmental Committee and Martin County 4-H'er Michelle Clifford tied for first place in the Consumer Education Contest sponsored by the Minnesota Livestock Breeders' Association. Both will receive a \$125 cash award.

The Ramsey County entry was a county fair livestock information display which was designed to build awareness of where food comes from and the importance of agriculture in Minnesota.

Clifford, a 4-H'er from Welcome, Minn., focused on extensive lamb production. Her winning project included demonstrations on carding and spinning wool, feeding lambs and a lamb-tasting event at a local bank.

Other entrants in the contest were the Blue Earth County Livestock Committee; the Chisago County 4-H Livestock Committee; Norman County 4-H'ers Tom Berglind, Steve Brandt, Jeff and Kristi Petry, Eric Rockstad and Eileen Sip, all of Ada, Minn.; and Renville County 4-H'er Bert Bleick, Fairfax, Minn.

# # #

V1,07,13,45,54,64,68

N4-H1846

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# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

March 12, 1987

Source: Jim Pettigrew  
612/624-5340

Writer: Jack Sperbeck  
612/625-4730

## ADVISORY COUNCIL HELPS SWINE CENTER COMMUNICATE WITH PRODUCERS

The 12 people on the University of Minnesota Swine Center advisory council provide a vital link with swine producers and the hog industry.

"It's not just how well we do something that's important," according to Jim Pettigrew, Swine Center director. "It's also important that we do the right things in our research, teaching, and extension programs.

"We need to consider views of producers and industry people in managing our programs. It boils down to communication," says Pettigrew, a swine nutritionist with the University's Agricultural Experiment Station.

The Swine Center works across several disciplines, including animal science, veterinary medicine, and agricultural economics, to develop research and education programs for Minnesota's swine industry.

Page 1 of 2

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"Let us know what you think we should be doing," Pettigrew urges swine producers. Producers can contact any of these advisory council members: Neal Black, Livestock Conservation Institute, South St. Paul; John Dierauer, Lester's Inc., Lester Prairie; Dr. Kent Ekstrom, Nutrena Feed Division, Cargill, Inc., Minneapolis; Jim Folkerts, Jasper; Kent Holden, Northfield; Jim Lewis, Welcome; Dr. Tim Loula, Nicollet Veterinary Clinic; Jim McPeak, Babcock Swine, Rochester; Dale Miller, Webb Company, St. Paul; Don Morrison, First National Bank, Blooming Prairie; Robert Wells, Hormel Co., Austin; Dr. Dave Meisinger, I.M.C., Terre Haute, Ind.

# # #

CEO,P,V1

NAGR1851

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

March 12, 1987

Source: Dave Noetzel  
612/624-9272

Writer: Mary Kay O'Hearn  
612/625-2741

## BEWARE OF WORM-RAISING SCHEMES

Farmers and business entrepreneurs are urged by Dave Noetzel, entomologist with the University of Minnesota's Extension Service, not to invest in any super fishing worm or manure worm-raising businesses without first consulting the Minnesota Attorney General's office, which is looking into such businesses. The worm-raising schemes could turn out to be the Jerusalem artichoke hype of the fishing world.

Sports magazine ads are touting the businesses as moneymakers, with people earning \$7,000 a year from a \$2,500 investment. In a December 1986 letter to Minnesota county extension agents, Noetzel wrote: "Culturing earthworms is not a reasonable way to make a living, let alone get rich, except for the person(s) who are peddling night crawler-rearing knowledge and supplies." If the company finds 200 customers to buy the starter kit, they will make half a million dollars at the expense of those 200 people.

His letter of warning adds: "We are in a period of economic concerns when home-based businesses have some social and

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political appeal. Such audiences are possibly more receptive to an approach by people promoting these schemes. In this situation it seems to me doubly irresponsible not to kill, as quickly as possible, this promotion." Noetzel added that he had submitted the advertisements to the attorney general's office. "In the meantime," his letter concludes, "strongly discourage financial involvement with these people."

A former distributor of the worms in northern Minnesota who has since quit the business has tried to discourage others from investing. His experience shows that the initial \$2,500 out-of-pocket investment could easily become as much as \$20,000 or \$30,000. On top of that, the worm species is not hardy, needs a lot of maintenance, and doesn't hold up.

Noetzel says the last time (1980) a similar worm fraud was stopped in Minnesota, a western firm took nearly \$4 million from duped Minnesotans.

# # #

BSS,CEO,V4

NAGR1856

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

March 12, 1987

Source: Melvin Baughman  
612/624-0734

Writer: Mary Kay O'Hearn  
612/625-2741

## CONSERVATION RESERVE TREE PROGRAM COULD BE QUITE PROFITABLE

Just how profitable tree planting could become to farmers is suggested in "Financial Analysis of Tree Planting Under the Conservation Reserve Program", produced by University of Minnesota Extension Service forester Mel Baughman and research assistant Dave Marcouiller.

"Foresters from the Minnesota Department of Natural Resources (DNR) can advise farmers about the suitability of their land for trees," Baughman says. Farmers should analyze a plantation investment very closely, using cost and revenue estimates applicable to their own situation. They should compare their projected financial return with the potential return if they continued to farm, rented out their land, or engaged in other conservation practices.

To enter the program, farmers must submit bids that state the annual rental payment they would accept to convert cropland to permanent vegetative cover. "Rental payments of up to \$50,000 a year for 10 years will be made to farm owners or operators whose bids are accepted," Baughman says. The program provides an

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additional payment of up to 50 percent of the cost of establishing permanent vegetative cover. The goals of the Conservation Reserve Program (CRP) are to reduce soil erosion, improve water quality, reduce sedimentation, improve wildlife habitats, and curb production of surplus commodities.

For their red pine, white pine, and white spruce projections, Baughman and Marcouiller obtained plantation designs, maintenance requirements, and cost estimates from DNR foresters involved in planning tree plantations for the CRP. Growth and yield of plantations were projected with the TWIGS microcomputer program.

The interest rate used in their analyses is a real rate that includes components for time preference and risk, but excludes inflation. Costs and revenues were reported on a per-acre basis.

### **Red pine plantations**

Red pine is recommended for planting mostly in north-central and northwestern Minnesota. First-year establishment costs total \$133 per acre and include chemical site preparation and buying and planting tree seedlings and grass seed. Chemical weed control in the second year would cost \$35. Farm income includes a 50-percent cost-share payment of \$67 for establishment costs and a \$43 rental payment for each of the first 10 years. After 40 years, commercial thinning would yield a net income of \$151. After 80 years, the plantation could be clearcut, producing a net

income of \$1,307.

A red pine plantation has the potential for yielding a 5-percent real rate of return, plus an additional \$264 per acre in net present value or \$15 per acre in terms of equal annual income.

### **White pine plantations**

White pine is recommended for planting mostly in southern and west-central Minnesota.

First-year establishment costs total \$133 per acre, including site preparation and buying and planting tree seedlings and grass seed. Chemical weed control in the second year would cost \$35. Farm income includes a 50-percent cost-share payment of \$67 for establishment costs and a \$70 rental payment for each of the first 10 years. After 40 years, a commercial thinning would yield a net income of \$82. After 60 years, a second thinning would yield \$206. After 80 years, the plantation could be clearcut, producing a net income of \$1,255.

A white pine plantation has the potential for yielding a 5-percent real rate of return, plus an additional \$478 per acre in net present value or \$26 per acre in terms of equal annual income.

## White spruce plantations

White spruce is recommended for planting throughout Minnesota.

First-year establishment costs total \$133 per acre and include site preparation and buying and planting tree seedlings and grass seed. Chemical weed control in the second year would cost \$35. Farm income includes a 50-percent cost-share payment of \$67 for establishment costs and a \$54 rental payment for each of the first 10 years. After 35 years, a commercial thinning would yield a net income of \$78. After 55 years, a second commercial thinning would yield a net income of \$230. After 80 years, the plantation could be clearcut, producing a net income of \$811.

A white spruce plantation has the potential for yielding a 5-percent real rate of return, plus an additional \$348 per acre in net present value or \$19 per acre in terms of equal annual income.

# # #

AEA,BSS,CEO,T,V1,V4

NAGR1848

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

March 19, 1987

Source: Telecommunications  
Development Center  
612/624-3616  
Writer: Bruce Theriault  
612/624-3616

## TV PROGRAM TO GIVE FARM FAMILIES INFORMATION ABOUT USING LAWYERS

KTCA, Channel 2, will broadcast the 1/2-hour program, "More Than A Handshake--Lawyers in the Farm Business," on Saturday, April 11, at 4:30 p.m. The program is designed to instruct farm families on how and when to consult a lawyer, how to contract for legal assistance, and on how to use a lawyer as a management tool.

"More Than A Handshake" is part of a series on the problems of rural Minnesota. The program was developed by the Minnesota Law School and Agricultural Law and Policy Institute at the University of Minnesota and funded by the Minnesota Extension Service's Telecommunications Development Center.

The program will be rebroadcast on KTCI, Channel 17, on Wednesday, April 15, at 9:30 p.m.

Contact Channel 2 (646-4611) for more details about the program.

# # #

V7,SEdist

NTDC1849

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March 19, 1987

Source: James O. Hanson  
612/624-3434  
Writer: Sam Brungardt  
612/625-6797

## **COLIC, OTHER HEALTH CONCERNS TO BE TOPICS AT U OF M HORSE CLINIC**

Discussion at this year's Spring Clinic for Horsemen at the University of Minnesota will focus on colic, lameness and wound care. The clinic will be Saturday, April 4, at the Earle Brown Center on the university's St. Paul campus.

The first half of the day-long program will deal with colic in horses. "Colic" is a term for a great variety of abdominal problems that cause acute pain. It is the leading cause of death in horses. The clinic will emphasize the importance of early diagnosis and prompt therapy in successfully treating colic. The featured speaker will be Dr. James N. Moore, a founder and current director of the internationally known Bolshoi Colic Research Program. Other topics will include lameness and wound care, which are also essential to equine well-being. The clinic will begin with registration at 8:15 a.m. and conclude about 5 p.m.

Many posters dealing with colic and other equine health topics will be on display throughout the conference, with experts stationed at the posters for discussion.

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A ceremony during the noon luncheon will honor Everist Spelts of Stillwater, Minn., this year's recipient of the Horseman of the Year Award.

Advance and at-the-door (in parentheses) registration fees for the clinic are \$20 (\$25) for horsemen and veterinarians, \$10 (\$10) for each additional family member, and \$10 (\$15) for veterinary technicians and students. Luncheon tickets will cost \$5 for those who preregister, \$6 for those who do not.

Sponsors of the clinic are the university's College of Veterinary Medicine, Department of Animal Science and Minnesota Extension Service; the Minnesota Horse Council; and the Breeders Fund, Equine Grants Program, Minnesota Racing Commission.

For more details, contact Dr. James O. Hanson, 440 Veterinary Teaching Hospital, University of Minnesota, 1365 Gortner Ave., St. Paul, MN 55108; phone: (612) 624-3434.

# # #

CEO,K,V1,V3

NAGR1863

March 19, 1987

Source: Earl Fuller  
612/625-6760  
Writer: Jack Sperbeck  
612/625-4730

## THERE'S A NEW TAX RULING ON DAIRY HERD BUYOUT PAYMENTS

Former dairy farmers who are receiving government buyout payments have a new tax wrinkle to contend with.

The latest IRS ruling is found in IRS Bulletin 10, March 9, 1987. "It calls for a different tax treatment compared to what local IRS staff said earlier," says Earl Fuller, farm management economist with the University of Minnesota's Extension Service.

The ruling states that the payment should be divided into two parts and reported in the year received. The first part will be treated as long-term capital gains and follow the rules of the 1986 and older tax laws. The difference between what you received for the animals and their fair market value as milk cows when they were sold becomes long-term capital gains. That part is reported on Form 4797 and Schedule D, then goes directly on Form 1040. It escapes self-employment taxation.

The remainder of the payment is then taxed at 12.3 percent for self-employment purposes. It's also taxed as ordinary farm income and is reported on line 7a of Form 1040F as government farm payments.

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Last spring, Fuller suggested reporting payments on Form 4797 as short-term capital gains (ordinary income without self-employment liability consequences). "Many CPAs are reporting payments this way," he says. That follows precedents set by previous rulings on agreements "not to compete" (not to produce milk in this case).

"It's hard to say who will be helped and who will be hurt by the new ruling, but it looks as though most people can live with it," he says. Total taxes in the year paid may be either more or less, compared to earlier precedents. For some, the boost in self-employment liabilities may boost future social security payments enough to be worthwhile.

Fuller says, "The logic of the approach escapes me--from an accounting, business or even political compromise perspective. But most ex-dairy farmers in the Upper Midwest should find it an acceptable alternative."

# # #

AEA,BSS,CEO,D,V1,V4

NAGR1866

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

March 19, 1987

Source: Philip R. Goodrich  
612/625-9733

Writer: Mary Kay O'Hearn  
612/625-2741

## ANALYZE NUTRIENTS IN MANURE FERTILIZER

It will soon be time to apply stored manure to cropland, and in times of limited borrowing capacity manure can contribute an important part of the nutrients needed for crop production.

"Proper application, together with good soil testing, can decrease the cost of fertilizer for most crops," says Philip R. Goodrich, agricultural engineer with the University of Minnesota's Extension Service. "Most farmers don't take full advantage of the fertilizer nutrients that are in the manure stored in liquid manure tanks and in stacks near the barn."

Analyzing the manure at a testing laboratory is the best way to determine how many nutrients are available. Sampling should be done now because it may take several weeks to get the information back, Goodrich says. Ask a county extension agent where testing can be done in your area. Try to take a sample from several places in the storage facility. Mix the six or eight samples together in a bucket and take a sample from the bucket to send to the laboratory.

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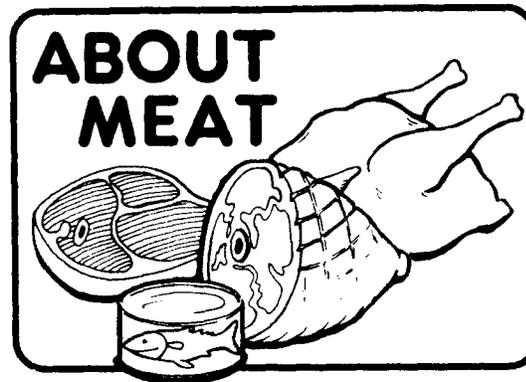
Combining proper fertilizer application with good soil testing can decrease the cost of fertilizer for most crops, according to Goodrich. Protecting the animal manure nutrients in the application process will save money. The ammonia nitrogen in manure can be lost to the air quickly if the manure is left on the surface. Solid manure is best spread on the land and disked or plowed in within three or four hours. Otherwise, about half the ammonia nitrogen can be lost to the atmosphere. Heavy rainfall or snow melt will move the nitrogen and other nutrients into waterways, turning the material into environmental pollutants. Incorporate the manure into the soil and it will be a valuable resource in the cropping pattern, Goodrich says.

# # #

BSS,CEO,F,V1

NAGR1859

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108  
(612) 373-0710



March 19, 1987

Specialists with the University of Minnesota's Extension Service and Sea Grant programs answer questions about red meats, poultry and fish.

**Q:** How can I tell whether oysters in the shell are fresh and good to eat?

**A:** The shells of oysters, mussels and clams should be tightly closed. If the shells gap slightly, tap them with a knife. They should respond by closing. Discard any that do not.--**Jeffrey Gunderson, area extension agent, marine fisheries**

**Q:** Can one cook oysters in the shell in a microwave oven?

**A:** To microwave oysters, clams or mussels in the shell, place them in a single layer in a dish, cover with plastic wrap, puncture a corner of the wrap for venting and cook on high (100-percent) power 2 to 3 minutes. Check and remove the bivalves as they open. Continue microwaving until all have opened.--**Jeffrey Gunderson, area extension agent, marine fisheries**

**Q:** Where can I buy a salt-free ham?

**A:** There's no such thing as salt-free ham. Ham is the cured hind

(page 1 of 2)

UNIVERSITY OF MINNESOTA, U.S. DEPARTMENT OF AGRICULTURE, AND MINNESOTA COUNTIES COOPERATING

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leg of pork. Salt is basic to all cures; in fact, it's the only ingredient necessary. If you want to eat ham but cut down on your sodium intake, you can (a) eat smaller portions, (b) place a portion in a pan and let tap water run into the pan for 1 or 2 hours to remove some of the salt or (c) buy a "reduced sodium" product.--Richard Epley, extension animal scientist, meats

**Q:** Where can I buy a nitrite-free ham?

**A:** I don't know. One can buy fresh leg of pork, which is the same as ham except that it is not cured and smoked. Nitrite used in curing is safe. It also performs several functions, including flavoring and preventing "warmed-over" flavor and botulism. Cured meats are not the main source of nitrites in our diets; approximately 80 percent of our dietary exposure to nitrite comes from eating green leafy vegetables.--Richard Epley, extension animal scientist, meats

If you have questions about red meats, poultry or fish, send them to About Meat, 136 ABLMS, University of Minnesota, 1354 Eckles Ave., St. Paul, MN 55108. Specialists will try to reply to all questions. Selected questions will appear in this column.

-30-

X

X031987

(page 2 of 2)

March 19, 1987

Source: Philip R. Goodrich  
612/625-9733  
Writer: Mary Kay O'Hearn  
612/625-2741

## INJECT LIQUID MANURE FOR BEST USE OF NUTRIENTS

Nutrients in liquid manure are easily lost in solids and should be injected into the soil, according to Philip R. Goodrich, agricultural engineer with the University of Minnesota's Extension Service.

Research at the University's Southern Experiment Station, Waseca, showed that more than twice as much ammonia is lost from surface-spread liquid manure than from injected manure. When liquid manure is placed on the surface, the ammonia rises into the atmosphere. As a result, purchased fertilizer is needed to replace the lost nitrogen.

Sweeps up to 18 inches wide were used for injection of liquid manure in the Waseca experiments, Goodrich explains, and were more energy-efficient than chisel injectors. The liquid manure is placed under the sweep area in a broad band, resulting in more uniform distribution of manure and nutrients over the field.

At Waseca, injection was done with a towed-hose injector, consisting of five sweeps on a tool bar mounted on the three-point hitch of a tractor. This system, developed by the University's

Page 1 of 2

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Department of Agricultural Engineering, allows for very rapid application of manure. Only the tractor moves over the field so there is less compaction. There are no empty runs back to the manure tank.

A swinging pipe attached to the tool bar is connected to a 4-inch hose which is pulled behind the tractor like an umbilical cord. At the storage facility a pump forces liquid from the tank into the hose and then transports the liquid manure to the field. There is a continuous supply of manure to the injectors. At the end of the field the injectors are raised slightly from the soil and the tractor turns around, then puts the injectors back into the soil and pulls the hose behind it as it moves to the other end of the field.

Goodrich says a number of custom applicators use this towed- hose application method in Minnesota. It allows them to apply manure continuously at rates up to 1,000 gallons per minute. For operators who have medium to large volumes of liquid manure to apply in the spring, this is a plus. Manure can be applied earlier and fields are available for earlier planting because this can be done in the usually short span of good weather available. During many years, according to Goodrich, this can mean added profits for farmers who would be delayed in planting because of a limited amount of good spring weather.

# # #

BSS,CEO,F,V1

NAGR1858

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

March 19, 1987

Source: Arley D. Waldo  
612/625-2744

Writer: Mary Kay O'Hearn  
612/625-2741

## DEVELOP YOUR OWN IDEAS ON PROPERTY TAX REFORM, ECONOMIST URGES

Participate in the process as Minnesota tackles property tax reform. Take the time to understand the issues involved, discuss them with family and friends, then give your ideas about how to proceed to your state legislators, urges Arley D. Waldo, economist in public policy with the University of Minnesota's Extension Service.

An important issue is how much state support there should be for local services and how much the state should aim its efforts at providing direct tax relief to local property taxpayers. There is always the concern that state tax money going to local programs may mean the state may want to make more of the decisions about how the local programs are run.

"The slogan 'tax reform' is deceptive," Waldo says. "It indicates a change for the better, but almost any change in tax policy will leave some people better off and others worse off." That's why, he repeats, it's so important to participate in the process.

Here are his suggestions on what to consider while doing this and some terms that need to be understood:

Recession affects state and local governments in two ways: it involves a drop in government revenues from better times and an increase in some

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public expenditures, such as unemployment compensation and public assistance. Minnesota relies heavily on its state income tax, which provides more than a third of the combined revenue of state and local government in the state. This is a larger proportion than in most states. Waldo says Minnesota has learned it is not recession-proof as national recession led to wide swings in revenues from income and sales taxes.

Inflation results in an increase in the cost of providing public services. It affects everyone who is paying higher taxes for what is bought. Until tax indexing, state revenues automatically went up as inflation pushed taxpayers into higher tax brackets. This allowed state legislators to vote for increased state spending--including more state aid to local units of government and property tax relief--without burdening voters with higher tax rates. Tax indexing put a lid on that practice. It prevents inflation from automatically increasing state tax revenues. "Now, when legislators want to increase spending, they are more likely to be forced to vote to increase taxes," Waldo says.

Some economic conditions within Minnesota have improved, but these are largely confined to urban areas, according to Waldo. Greater Minnesota is still hurting--its heavy dependence on agriculture, mining, forestry and related businesses is unchanged. Nationally, inflation is down, but unemployment remains stubbornly high and the huge federal deficit remains.

Taking a historical look, Waldo says that de-emphasizing property taxes was Minnesota's policy for years. Property tax relief was accomplished by tax credits to taxpayers and state aid to local governments and school districts paid by the state. In the mid-1960s, more than half of all local

expenditures in the state came from property taxes. By 1974, this had dropped to less than a third as more state and federal aid flowed to local governments and school districts. In the last 14 years, state and federal aid have accounted for more than half of local government spending in Minnesota. "The property tax was indeed de-emphasized," Waldo says.

But in the process, the classification system for property taxation became more complex. Much of the dissatisfaction with the present system comes from its being difficult to understand, hard to administer, and nearly impossible to explain. "This is readily admitted by those who have to administer the property tax system throughout Minnesota," Waldo says.

A major step toward simplification would be eliminating property tax classification or at least cutting back the number of property classes for tax purposes. But this can't be done without substantially modifying the present system of providing state aids to local governments and school districts and property tax credit programs. In other words, the entire system has to be considered, not just bits and pieces. "The interrelationships between property classification, state aids and tax credits are crucial to any overall reform proposal," Waldo says.

Would-be tax reformers say these four points must prevail:

1. Simplify the property tax system.
2. Do better targeting of property tax relief measures.
3. Avoid large increases in local property tax levels.
4. Make local officials more accountable for local spending decisions.

# # #

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

March 19, 1987

Source: Philip R. Goodrich  
612/625-9733  
Writer: Mary Kay O'Hearn  
612/625-2741

## USE CAUTION, SAFETY MEASURES WHEN PUMPING MANURE

Pumping manure from liquid manure tanks is a dangerous job because this manure gives off poisonous gases when it is stirred up or agitated.

There are documented cases of farmworkers who died while agitating or pumping liquid manure tanks, says Philip R. Goodrich, agricultural engineer with the University of Minnesota's Extension Service. One 18-year-old farmworker was using a hose to clean pens at one end of a barn while agitation was going on at the other end. Others have been overcome with fumes, but have survived in weakened conditions. Farm animals, too, become sick and may die from inhaling this gas.

"Liquid manure storages produce several hazardous gases," Goodrich says. "Ammonia and hydrogen sulfide are quickly released during agitation of the manure. Very active ventilation can avoid some of the problems with liquid manure."

He suggests these precautions:

--When possible, remove all animals and persons from a building when agitating liquid manure pits beneath the building.

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--Provide positive, high-rate ventilation during manure agitation. This doesn't mean just opening doors, because sometimes opening doors changes the ventilation system in the building. There may be some areas in the building with no ventilation at all.

--When agitating under-floor manure tanks in confinement buildings, pull the air from the building down through the tank and exhaust to the outside. Turning extra fans on may speed this process.

The best time to agitate is when the building can be opened wide and all the fans turned on. Doing this during warmer weather puts less stress on animals.

Even after a manure tank is empty, it still has a high concentration of gases which are heavier than air.

"Never enter a manure tank unless it's absolutely necessary," Goodrich warns. "If you must enter, you must be equipped with auxiliary air supplies such as those used by fire companies and have a rope tied around your body--with two strong people (also protected from fumes) managing the rope so you could be pulled from the tank immediately should you need assistance. Manure tanks are very high-risk areas that have killed a number of people in Minnesota and surrounding states."

# # #

BSS,CEO,D,F,P,V1

NAGR1860

March 26, 1987

Source: George Rehm  
612/625-6210  
Writer: Jack Sperbeck  
612/625-4730

## DECISIONS ON NITROGEN RATES ARE CRUCIAL

Applying adequate but not excessive nitrogen gives large returns for most Minnesota farmers. Decisions about nitrogen rate are the most important in one's fertilizer program, says George Rehm, soils specialist with the University of Minnesota Extension Service.

Decisions about use and management of nitrogen fertilizers can affect one's profit or loss more dramatically than decisions for other nutrients.

In eastern Minnesota, nitrogen rate decisions should be based on yield goal and organic matter content of the soil, and take into consideration legumes in the crop rotation.

Growers in western Minnesota have an additional management tool--the soil nitrate test. This test measures the amount of nitrate nitrogen left over from previous crops to a depth of 2 feet. Fertilizer dealers and consultants who have used the test report the amount of carryover or residual nitrate nitrogen is lower than normal this year. This means that higher-than-normal rates of nitrogen fertilizer may be needed to get maximum yields

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in western Minnesota in 1987.

Amounts of carryover nitrate-nitrogen vary from field to field. "If you're farming in western Minnesota, get a soil nitrate test this spring before you reach a final decision on your nitrogen program," Rehm advises.

Detailed instructions on the test are available from county extension offices. Supplies of bags for collecting samples are also available.

# # #

AEA,BSS,CEO,V1,V4

NAGR1883

March 26, 1987

Source: Joyce Walker  
612/625-2701  
Writer: Jack Sperbeck  
612/625-4730

## GOOD LISTENERS HELP TEENS COPE WITH STRESS

Listen. Just listen. That's the most important thing you can do to help a young person cope with stress and depression.

"The biggest mistake adults make when dealing with teenagers is not listening--or not taking them seriously," says Joyce Walker, 4-H youth development specialist with the University of Minnesota's Extension Service.

Loss and conflict are the two major stressors for teenagers. Loss of friends and family may be due to divorce, death, moving or illness.

The Minnesota 4-H organization has produced videotaped interviews with teenagers as they discuss loss and conflict. The tapes are being shown in 4-H training in coping, communication and problem-solving skills.

"The message is, you're responsible for your own life and you must take care of yourself," Walker says. "Sharing losses or conflict with a friend--opposed to burying it in yourself--helps deal with the problem."

# # #

CEO,BSS,G,Q,V1,V4

N4-H1873

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March 26, 1987

Source: George Rehm  
612/625-6210  
Writer: Jack Sperbeck  
612/625-4730

## ARE YOU CONFUSED OVER SOIL PHOSPHORUS TESTS?

Many soil testing laboratories use two different procedures when they analyze soil samples for phosphorus. If you see results of both tests on a soil test report, considering the soil pH should clear things up, says George Rehm, soils specialist with the University of Minnesota's Extension Service.

The Bray procedure is the standard that's been used to measure phosphorus in soils for many years. Research shows the Bray procedure gives the best measure of soil phosphorus when the pH is 7.3 or lower.

The Olsen procedure has given the best measure of phosphorus status when soil pH is higher than 7.3. "If the results of both tests are listed on your report, consider your soil pH and then choose the results that are appropriate," Rehm advises.

Soil test values are not the amounts of nutrients "available" in a soil. A soil test value is nothing more than an index that tells whether a certain nutrient in a soil is very low, low, medium high or very high. "If the relative level is known, it's easy to provide a fertilizer recommendation that will meet the

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yield goal of the individual farmer," Rehm says.

You can also get information you don't need on a soil test report. For example, some soil testing laboratories analyze soils for phosphorus and report  $P_1$  and  $P_2$  values. Minnesota research has shown that the  $P_2$  value is not related to crop response to phosphate fertilizer. Ignore the  $P_2$  number, Rehm says.

There's new help for farmers interested in soil test results; revised University of Minnesota fertilizer recommendations are now available on computer disks. Check with your county extension office if you're interested. "Using the fertilizer recommendations in this computer program should help eliminate some confusion," Rehm says.

# # #

AEA,BSS,CEO,V1,V4

NAGR1884

March 26, 1987

Source: Earl Fuller  
612/625-6760  
Writer: Jack Sperbeck  
612/625-4730

## OATS NOT LIKELY TO REPLACE SOYBEANS IN CORN BELT

The recent cross compliance limitation on oats that was cancelled probably won't have much effect on spring plantings in Minnesota.

"Oats will be no more than a 'wash' with soybeans in most cases," says Earl Fuller, farm management economist with the University of Minnesota's Extension Service. However, some farmers may find that oats, particularly if the straw is harvested, will provide a gross margin greater than soybeans.

Consider oats if the crop provides a greater return to land, labor and machinery overhead. However, the forward contract oat price for summer or early fall delivery already shows market expectation of expanded oat acreage. Projected relative prices of oats and soybeans have changed enough to reduce returns to oats, Fuller says.

Farmers can project their gross margins for both crops by using crop budget sheets available at county extension offices throughout Minnesota. They should be sure to consider any impacts that planting oats would have on government program participation, Fuller advises.

# # #

AEA, BSS, CEO, V1, V4

NAGR1886

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March 26, 1987

Source: Wayne E. Carlson  
612/221-4607  
Writer: Mary Kay O'Hearn  
612/625-2741

## **VIDEO INSTRUCTION IS AVAILABLE FOR MANAGERS OF FARM BUSINESSES**

Helping farmers to become better managers is the goal of a package of instructional videotapes called "Business Management in Agriculture." Four Land Grant universities, including the University of Minnesota, and Farm Credit Services, St. Paul, developed the tapes. Every state will have the curriculum because of the joint funding of USDA and Farm Credit.

The tapes vary in length from 25 to 45 minutes, and each is designed to be used with a complementary print package under the guidance of a trained facilitator. Wayne E. Carlson, University of Minnesota extension specialist and project coordinator, says the concepts and content are as "generic" as possible and the facilitators are supposed to localize the information to their areas of the country, whether it be for grain or cotton growers.

Among the topics that the tapes deal with are strategic planning for financial success, identifying farm/ranch and family goals, selecting and implementing a farm record system,

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developing a balance sheet, income statement and cash flow statement, analyzing financial performance of the farm, and partial and complete farm budgeting.

In February, training for facilitators was held in Mankato. Those attending included county extension agents, area farm management agents, Farm Credit personnel, and AVTI and vocational agriculture instructors. Last fall, 28 states and three Farm Credit Districts sent representatives to Minnesota for training.

For more information about Business Management in Agriculture, phone Carlson at (612) 221-4607.

# # #

AEA,BSS,CEO,V1,V4

NAGR1871

March 26, 1987

Source: Joyce Walker  
612/625-2701  
Writer: Jack Sperbeck  
612/625-4730

## U OF M IS DEVELOPING SUICIDE PREVENTION CURRICULUM

A curriculum on suicide prevention is being developed at the University of Minnesota for use in Minnesota schools, 4-H clubs and other community organizations.

The educational program will help make people more aware of high suicide risk symptoms, says Joyce Walker, 4-H youth development specialist with the university's Minnesota Extension Service. Practical skills for helping people cope with stress and depression will be emphasized.

When vulnerable people experience conflict and loss, they may not have the internal coping and problem-solving skills to handle the problem. "They need help from family, friends, clergy, counselors or mental health workers," Walker says. "If some barrier prevents them from getting help, the depression grows."

Barriers to seeking help include fear, lack of knowledge, poor communications skills, pride, drug and alcohol use or the immobility caused by depression. "If there's a method of self-destruction at hand, they are at high risk for suicide," Walker says.

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The program, part of the 4-H Teens in Distress program, is being developed cooperatively with the university's Medical School in response to a 1986 study of adolescent stress, depression and suicide. It is designed for both teenagers and adults.

Walker says high-achieving, "Type A" people--the hard-driving perfectionists--are especially vulnerable to stress. "When you're a perfectionist, it's hard to deal with ambiguity and change," she says.

# # #

BSS,CEO,V4,V7

N4-H1880

March 26, 1987

Source: Earl Fuller  
612/625-6760  
Writer: Jack Sperbeck  
612/625-4730

## BEGINNING FARMERS SHOULD BE CAUTIOUS ABOUT BUYING LAND

"You need a place to farm, but you don't need to own it," says Earl Fuller.

Beginning farmers will find that limited funds do better when invested in livestock and machinery instead of land, says Fuller, a farm management economist with the University of Minnesota's Extension Service.

"Land is a growth stock in a farmer's portfolio," Fuller says. Current earnings from land are less than from investments in livestock and machinery--the shorter life assets you need to put a farm business together.

Don't be overly tempted even if land purchases are subsidized by a reduction in interest rates or an extension in the loan repayment terms, Fuller advises. "Beginning farmers should still ask if a land investment is appropriate when the alternative is investing in assets with potentially higher earnings rates," he adds.

Land ownership satisfies our need for a "sense of place." And, community status as a land owner rather than a renter is a

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powerful force that urges people to own the land they farm.

But a variety of studies still show tenants make greater financial progress than owner-operators with equal investments in their farm businesses. "Projections for farm commodity prices don't promise much in capital gains from land investments for the next several years.

"We may not have seen the bottom of land prices," Fuller says. "Carryover stocks are still burdensome. And odds are better than 50 percent that government crop payments--tied to land--will decline as well."

Land has historically shown a current return rate of between two and five percent world-wide. In the U.S. it's averaged three to four percent most of the time, Fuller says.

"When interest costs 10 percent or more to own land, current earnings won't pay for it. Only when land is appreciating at least as much as the inflation rate will land ownership add to equity as fast as comparable investments in operating inputs and productive personal property," Fuller says.

# # #

AEA,BSS,CEO,V1,V4

NAGR1885

March 26, 1987

Source: Donald McTavish  
612/625-3190  
Susan Meyers  
612/625-1250  
Writer: Deedee Nagy  
612/625-0288

## MINNESOTA IS 'GRAYING' BUT STATISTICS DON'T TELL EVERYTHING

Minnesota's population is aging, but counting birthdays doesn't tell government officials and social agency planners what they need to know about the demands for services for the elderly in the years ahead.

Analyses of 1980 Census data can help counties and communities understand some of the implications of the "graying" of their populations. Looking only at the percentages of the population over the age of 65 can give a distorted picture, says Susan Meyers, family life specialist with the University of Minnesota's Extension Service. For example, a number of counties along Minnesota's western and southern borders have high percentages of elderly residents, but a closer look at the data shows that relatively few of these people live in poverty.

Meyers says the needs for housing, health care and other social services for the relatively well-off elderly residents of those areas differ from the needs in counties with fewer elderly,

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but higher percentages of them living in poverty. A number of counties in north central and northwestern Minnesota have 25 percent or more of their elderly citizens living on incomes below the poverty level. These counties will experience heavy demands for services to the elderly in the coming years, and they would be wise to begin planning now for that, Meyers says.

Knowing how to interpret census data can point out counties with higher than average numbers of residents past the age of 85. Meyers points out that these regions will likely experience increasing demands for support and family services to allow seniors to live comfortably and with dignity.

# # #

BSS,CEO,E,V4,V7

NHEC1882

March 26, 1987

Source: Richard Goodrich  
612/624-1205  
Writer: Jennifer Obst  
612/625-1978

## U OF M DAIRY CATTLE TEACHING, RESEARCH CENTER IS COMPLETED

A new Dairy Cattle Teaching and Research Center has been built on the University of Minnesota's St. Paul campus, opening new opportunities for research, teaching and extension, says Richard Goodrich, head of the university's Department of Animal Science.

The Minnesota Legislature approved funds for the building in 1984. It replaces a dairy barn built before 1915, which had been designed when cows were smaller, and which had grown increasingly inefficient and uncomfortable for both cows and people. There are plans to remodel the old barn as an intensive physiology research unit.

Goodrich says, "The new building will be a cooperative facility with the Departments of Animal Science and Agricultural Engineering and with industry. We expect it to be used heavily for extension programs as well as for teaching and for the research of the university's Agricultural Experiment Station."

The new center was designed by a multidisciplinary planning team led by Robert Appleman, dairy specialist with the Minnesota Extension Service. Dairy scientist Donald Otterby says it incorporates many new features and technological advances. He says, "This center will be used for intensive nutrition management, rumen physiology research, as

well as agricultural engineering research on feeding, manure handling and other systems."

The building's double-5 herringbone milking parlor is equipped with automated cow identification and milk weight recording, unit detachers that automatically remove themselves from cows upon completion of milking, backflushing of milking units, and water flush tanks to wash down the parlor and holding pen floors after each milking.

The tie-stall cow barn holds 90 cows. The main barn is equipped with a monorail designed to eventually feed total-mixed-rations automatically to individual cows. Other features of the barn include using recirculated water for flushing gutters, and watering cups equipped with special drains to help keep the stall platforms dry. Some stalls are extra wide to accommodate special equipment used in research.

"We think the new Dairy Cattle Teaching and Research Center will be a dairy unit that we and the people of Minnesota can be proud of," Goodrich says.

# # #

BSS,CEO,D,V1,V4

NAGR1878

March 27, 1987

Source: George Rehm  
612/625-6210  
Writer: Jack Sperbeck  
612/625-4730

## **DON'T USE NUTRIENT RATIOS FOR FERTILIZER RECOMMENDATIONS**

Farmers shouldn't use nutrient ratios for making fertilizer recommendations--even if they think it's fun to calculate them. The amount of a nutrient in the root zone is far more important than the ratio of one nutrient to another.

"Using ratios can often lead to incorrect fertilizer recommendations that may be expensive," says George Rehm, soils specialist with the University of Minnesota's Extension Service. For example, the ratio of one nutrient to another in a sandy soil may fall into the "correct" range. Yet, levels of both nutrients may be too low for optimum yields.

These same nutrients may be present in a fine-textured soil in the same ratio and at levels more than adequate for optimum yield. With this example, there would have been no recommendation for fertilizer on the sandy soil. If these two nutrients were deficient, yields would be reduced and potential profit would be lost.

Page 1 of 2

The idea that definite soil ratios of one nutrient to another were important originates from research in the eastern United States that's nearly 50 years old. "Modern research by Agricultural Experiment Stations in the Corn Belt has shown the ratio concept is outdated," Rehm says.

In Minnesota, there's no substitute for analyzing soil samples to determine nutrient levels. The University of Minnesota Soil Testing Laboratory provides fertilizer recommendations based on the supply of nutrients in a soil instead of ratios.

Soil sample bags and easy-to-follow instructions are available from county extension offices. Farmers who haven't collected samples yet, should do so this spring before settling on a fertilizer program, Rehm advises.

# # #

AEA,BSS,CEO,V1,V4

NAGR2008

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

MSC  
9A274

April 2, 1987

Source: Edward Blonz  
612/624-7288  
Writer: Deedee Nagy  
612/625-0288

## HERBERT DELIVERS LATEST NUTRITION INFORMATION VIA COMPUTER

HERBERT is a computer-based bulletin board that allows campus and county staff with the University of Minnesota's Extension Service as well as nutrition professionals around the country to receive the latest information on a variety of nutrition topics.

HERBERT is an acronym for Home Economics Resource Bulletin Board for Extension-Related Topics. The electronic bulletin board grew out of extension food and nutrition specialist Edward Blonz's interest in computer transmission of information. He saw an opportunity for such a system to supply the most up-to-date information on general nutrition, wellness and current food controversies to county agents and others throughout Minnesota and the nation.

Operating out of a personal computer in Blonz's office, HERBERT is available to answer questions and supply information 24 hours a day, seven days a week. Each month, approximately 60 users dial in to HERBERT through their computers and read or copy and store items that are of interest to them in their work. In

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addition to county extension offices, a number of Blonz's colleagues at other universities check the bulletin board for the latest updates.

Blonz updates HERBERT's contents regularly so items are timely. He also is able to leave messages for users and respond to messages or queries they have left for him while using the bulletin board system. If Blonz is in his office when a HERBERT user comes on line, he can type in responses to their questions using a "chat" option on the computer program.

According to Blonz, HERBERT saves time, mailing costs and copying charges when a piece of nutrition information needs to get out to extension agents and other professionals quickly. Within seconds, information on food legislation, safety, food fads and diet claims can reach those who need to be on top of the news so they can respond to consumers' questions and concerns.

# # #

BSS,CEO,H,V4

NHEC1877

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota <sup>MC</sup>  
St. Paul, Minnesota 55108 <sub>3A-77</sub>

April 2, 1987

Source: Juanita Reed  
612/625-9231  
Writer: Sam Brungardt  
612/625-6797

## YOUTH WIN TRIPS TO NATIONAL 4-H CONFERENCE, MARKETING SYMPOSIUM

Six Minnesota youth have been named winners in the Minnesota State 4-H Awards Program.

Five of the youths have won expense-paid trips, sponsored by member banks of the Minnesota Bankers Association, to the National 4-H Conference, which will be April 11-18 at the National 4-H Center in Washington, D.C. They are Blue Earth County 4-H'er Margaret Anderson, daughter of Mr. and Mrs. Carl Anderson, Route 9, Mankato; Pope County 4-H'er Carolyn Bryce, daughter of Mr. and Mrs. Edward Bryce, Route 2, Glenwood; Sherburne County 4-H'er Mark Carlson, son of Mr. and Mrs. Leonard Carlson, Route 5, St. Cloud; St. Louis County 4-H'er Anne McDonald, daughter of Mr. and Mrs. Jack McDonald, Hermantown; and Stearns County 4-H'er Jennifer Schmidt, daughter of Mr. and Mrs. Gerald Schmidt, Route 2, Clearwater.

In addition, Traverse County 4-H'er Ray Ehlers, son of Mr. and Mrs. Wilbert Schneider, Route 1, Wheaton, has been named Minnesota 4-H Commodity Marketing Achievement winner. Ehlers will receive an expense-paid trip, sponsored by the Chicago Board of Trade, to the Commodity Marketing Symposium in Chicago, April 26-29.

# # #

CEO,V1,V4

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N4-H2020

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April 2, 1987

Source: Dennis R. Linden  
612/625-6798

Writer: Jennifer Obst  
612/625-1978

## EARTHWORMS MAY BE A HIDDEN RESOURCE FOR MINNESOTA FARMERS

Some Minnesota farmers, especially those who use conservation tillage practices, and most gardeners may have an underrated ally. That ally is the common earthworm, a natural soil engineer whose burrows permit air and water to enter the soil.

For the past three years, Dennis Linden, USDA-ARS soil scientist at the University of Minnesota, has looked at the effects earthworms have on water infiltration.

"Earthworm research hasn't received a lot of attention in the U.S., although the European community has studied them for years," Linden says. "We traditionally follow some agricultural practices that have minimized our number of earthworms. Tillage disrupts their homes and chemicals reduce their numbers in Minnesota. Because of our cold winters, we do not have high populations even when all other factors are favorable."

However, Linden's studies suggest it may be time for the worm to turn. He and graduate student Joe Zachmann compared water infiltration rates on test plots under various conditions and found that highest rates--up to 10 times as much water--were on plots with corn residue incorporated and worms present. The lowest rate was on soil from which residue had been removed and there were no worms. "Conservation tillage techniques mean higher amounts of residues and will probably promote earthworms," Linden says.

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Earthworms led to deeper water storage (therefore, reduced evaporation losses) and more water available to the crop. However, deep burrowing by earthworms may also have a drawback, Linden points out. "If earthworms are present and active, they create holes in the soil where water can rapidly move down into the soil. On the drawback side, water may also carry fertilizer or pesticide with it. On the benefit side of the ledger, as the water moves so quickly, it won't move much of the chemicals incorporated in the surface soil with it; however, what little it does carry may be carried deeper. So, this could be good or it could be bad," Linden says. "It may be a way to get water to the crop without displacing a lot of the fertilizer or chemicals near the surface. But it's probably going to take very small quantities of those substances with it down deeper in the soil."

To help evaluate the potential effects of earthworms on water conservation and water quality, Linden and his colleagues are continuing to conduct research, including a statewide survey of existing species and their populations. "We have also inoculated fields at the university's Rosemount Agricultural Experiment Station with different worm species and will be testing different tillage practices as well as crop rotations on these plots for several years so we can determine some of the earthworm population dynamics," Linden says. "It's an earthworm survivability study that will also be used to evaluate some of the water quality issues important to the state".

# # #

April 2, 1987

Source: James H. Orf  
612/625-8275

Writer: Sam Brungardt  
612/625-6795

## REVISED STANDARD, NEW SOYBEAN COULD INCREASE FARMERS' PROFITS

The Minnesota Agricultural Experiment Station has released a new, indeterminant soybean named Glenwood.

James Orf, University of Minnesota agronomic scientist who heads the station's soybean improvement program, says Glenwood is an improvement over Dawson, a variety the station released in 1983 because it had higher protein content and yielding ability than Evans, an earlier University of Minnesota release.

Orf says, "For some time, our breeding program's been aimed at increasing protein content and yield while maintaining oil content. Although farmers won't be paid any more this year for growing Glenwood instead of some other variety, protein content may be very important in a few years because the U.S. government is considering adding protein percentage to the standards for soybeans. This means there would be a price differential on the basis of protein."

Orf says Glenwood, a group 0 maturity variety, is a selection from a cross between Evans and Peterson 85. It was tested as M74-12.

Glenwood's yellow seeds have imperfect black hila and are larger than those of Dawson. While they have a higher protein percentage than the seeds of Dawson, their oil percentage is about the same, Orf reports.

In 39 advanced tests, conducted from 1982 through 1986 at seven Minnesota locations, Glenwood posted an average yield of 46.5 bushels an acre. In the same tests, Dawson's average yield was 44.9 bushels an acre. The average protein percentage for Glenwood was 41.5 percent, compared to 40.4 percent for Dawson.

In 18 tests in Michigan, North Dakota, Ontario, South Dakota and Wisconsin over the past two years, Glenwood yielded an average of 41.3 bushels an acre, compared to 39.5 for Dawson. Glenwood's protein percentage averaged 41.5 percent, compared to Dawson's 40.4 percent.

Glenwood matures about one day later than Dawson. Although it is similar to Dawson in plant height, it has a better lodging score, Orf says. It is resistant to race 1 of Phytophthora.

Registered seed of Glenwood is available this spring, and certified seed will be available in 1988. Sale of seed is regulated by the U.S. Variety Protection Act. To obtain the names of Glenwood seed growers, contact the Minnesota Crop Improvement Association, 1900 Hendon Ave., St. Paul, MN 55108; telephone (612) 625-7766.

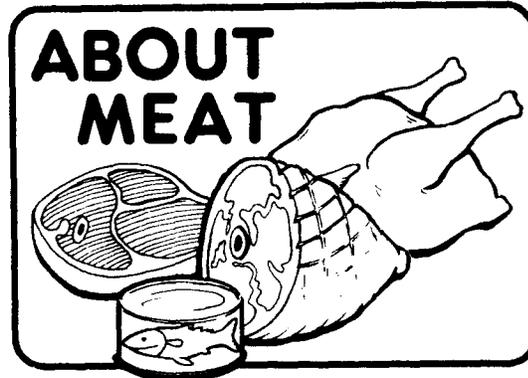
# # #

BSS,F,V1,V4

NAGR2012

1425  
5/1/78

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108  
(612) 373-0710



Specialists with the University of Minnesota's Extension Service and Sea Grant programs answer questions about red meats, poultry and fish.

**Q:** I really like lamb but my husband doesn't. What can I do to get him to enjoy lamb?

**A:** Try removing as much of the trimmable fat as possible before you cook lamb. Depending upon the recipe, excess fat can influence the flavor of the cooked product. And, serving lamb as hot as possible will make the fat less noticeable. Many people enjoy lamb when it's served with mint jelly or mint sauce. Finally, consider cooking lamb outdoors on the grill as this results in a different flavor.--Richard Epley, extension animal scientist,  
**meats**

**Q:** Is lamb fat bad for a person?

**A:** Eating pure fat from any kind of meat provides high amounts of calories and is not recommended even though one might savor the flavor. Also, the fat present in lamb is 56 percent saturated--the highest of the red meats. Purchase well-trimmed lamb or trim it of fat at home. A 3-ounce, broiled, trimmed

(page 1 of 2)

UNIVERSITY OF MINNESOTA, U.S. DEPARTMENT OF AGRICULTURE, AND MINNESOTA COUNTIES COOPERATING

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serving of lamb loin chop has only 10.4 percent (8.9 grams) of fat.--Richard Epley, extension animal scientist, meats

**Q:** What's "spring lamb"?

**A:** The term "spring lamb" is applicable only to carcasses of new-crop lambs that have been slaughtered from approximately March 1 to October 1. Thus, spring lamb means that the cuts were derived from a young animal.--Richard Epley, extension animal scientist, meats

**Q:** Recently, I saw a pork chop in a retail case that had red spots in the muscle. Even though it was marked down in price, I didn't buy it. Was that a wise move?

**A:** The red spots are known as "blood splashing." They are caused by a bursting of the capillaries that supply blood to the muscle. Improper stunning technique during slaughter can result in blood splashing. Although such meat is not visually appetizing, it is still wholesome.--Richard Epley, extension animal scientist, meats

Do you have questions about red meats, poultry or fish? If so, send them to About Meat, 136 ABLMS, University of Minnesota, 1354 Eckles Ave., St. Paul, MN 55108. Specialists will try to reply to all questions. Selected questions will appear in this column.

X

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(page 2 of 2)

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota <sup>MSC</sup>  
St. Paul, Minnesota 55108 <sup>9A27p</sup>

April 2, 1987

Source: Pat Borich  
612/624-2703  
Writer: Jack Sperbeck  
612/625-4730

## MINNESOTA EXTENSION SERVICE WILL BECOME MORE FLEXIBLE, RELEVANT

The Minnesota Extension Service--through your local county office--will soon restructure to become more relevant, flexible, and responsive to your needs. So says Patrick J. Borich, director of the University of Minnesota's Extension Service, which has 93 county offices in a statewide educational system.

A highlight of the restructuring will be the process of clustering, with each cluster consisting of at least two county offices and specialized agents. Agents will specialize in areas such as farm management, crops and soils, livestock, youth work, and family financial management.

Many counties have already developed informal clustering arrangements, wherein agents put on special programs outside their home-based offices. One example is a five-county family financial planning program in the Mankato area in which one or two specialized county agents prepare in-depth material on family financial management.

Page 1 of 2

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Agents who specialize are better able to develop high-quality programs, according to Mary Lou Irhke, Blue Earth County extension agent. Clustering and agent specialization mean that there's more specialized expertise available in a multi-county area. Travel problems posed by the new arrangement can be minimized with careful planning. "People from neighboring counties are used to driving to regional trade centers like Mankato," says Irhke.

Each county will continue to maintain an extension office with a county director. Depending on county support and need, there may also be additional specialized extension agents and program assistants.

"Programs will be based on planning with county extension committees," Borich says. "We'll work on issues that are responsive to your needs." Local citizens, through county extension committees, are helping to develop the county clusters. "The county clusters are not being formed in St. Paul," Borich adds.

# # #

AEA,BSS,CEO,V1,V4

NEXT2009

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

MSC  
A27P

April 2, 1987

Source: Edward Blonz  
612/624-7288  
Writer: Deedee Nagy  
612/625-0288

## HERBERT DELIVERS LATEST NUTRITION INFORMATION VIA COMPUTER

HERBERT is a computer-based bulletin board that allows campus and county staff with the University of Minnesota's Extension Service as well as nutrition professionals around the country to receive the latest information on a variety of nutrition topics.

HERBERT is an acronym for Home Economics Resource Bulletin Board for Extension-Related Topics. The electronic bulletin board grew out of extension food and nutrition specialist Edward Blonz's interest in computer transmission of information. He saw an opportunity for such a system to supply the most up-to-date information on general nutrition, wellness and current food controversies to county agents and others throughout Minnesota and the nation.

Operating out of a personal computer in Blonz's office, HERBERT is available to answer questions and supply information 24 hours a day, seven days a week. Each month, approximately 60 users dial in to HERBERT through their computers and read or copy and store items that are of interest to them in their work. In

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addition to county extension offices, a number of Blonz's colleagues at other universities check the bulletin board for the latest updates.

Blonz updates HERBERT's contents regularly so items are timely. He also is able to leave messages for users and respond to messages or queries they have left for him while using the bulletin board system. If Blonz is in his office when a HERBERT user comes on line, he can type in responses to their questions using a "chat" option on the computer program.

According to Blonz, HERBERT saves time, mailing costs and copying charges when a piece of nutrition information needs to get out to extension agents and other professionals quickly. Within seconds, information on food legislation, safety, food fads and diet claims can reach those who need to be on top of the news so they can respond to consumers' questions and concerns.

# # #

BSS,CEO,H,V4

NHEC1877

April 2, 1987

Source: Deborah Brown  
612/624-7491  
Editor: Sam Brungardt  
612/625-6797

## PURPLE RUFFLES BASIL IS A WINNER IN MORE WAYS THAN ONE

Purple Ruffles basil, one of this year's All America Award winners, is such a versatile plant it's sure to become an all-time favorite, says Deborah Brown, horticulturist with the University of Minnesota's Extension Service.

Brown says, "Its glossy, dark maroon leaves with ruffled edges are so attractive you'll want to use this plant in the flower garden as well as growing it with other herbs and vegetables."

Basil is easy to grow, and Purple Ruffles is no exception, according to Brown. All one needs is a bright, sunny location and well-drained soil.

"Seeds may be planted directly in the garden in the southern third of Minnesota once the ground warms," Brown says. "Or they may be started indoors under lights six to eight weeks before the last frost date. You will probably find Purple Ruffles available as bedding plants, too, if you choose not to start seeds yourself."

Brown says leaves of Purple Ruffles can be harvested throughout the summer for use as a fresh seasoning or to be used later, dried. She says, "Purple Ruffles also makes a lovely, colorful garnish and a wonderful herbal vinegar. And it's not too shabby as foliage in a bouquet of brightly colored flowers!"

# # #

I,V4,V7

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NAGR2004

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April 2, 1987

Source: Deborah Brown  
612/624-7491

Editor: Sam Brungardt  
612/625-6797

## MOVING YOUNG TREES, SHRUBS DEMANDS CARE

Minnesotans often have access to the woodlands that surround their summer cabins. Undoubtedly, many people have thought about using young trees or shrubs from these woodlands to beautify their cabins or to provide shade, privacy or a windbreak.

Homeowners often find that they must move young woody plants to make way for remodeling projects. Or, perhaps plants weren't planted in a suitable spot in the first place.

When is the best time to move young trees and shrubs, and what's the best way to do it? Deborah Brown, horticulturist with the University of Minnesota's Extension Service, says "Early spring, as soon as frost leaves the ground and it's not too wet to dig, is the very best time to move young woody plants from the wild or from one place in the landscape to another. There is a grace period--before really hot weather sets in and places a heavy demand on the newly transplanted root system--during which the roots should have a chance to begin the process of re-establishment."

Brown offers these tips for moving young trees and shrubs:

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--Select small plants. The larger a plant is, the more difficult it is to move it successfully. Smaller plants suffer less shock and are able to recover from the move and take off faster, catching up and often surpassing the growth shown by larger specimens.

--Try to take a good-size ball of soil with the root system when you dig a plant out. An evergreen that is accidentally "barerooted" has a very slim chance of ever surviving the move.

--Replant immediately, if possible. If you need to transport a tree or shrub to where it will be planted, cover it with a tarp of some sort to protect it from drying out on the trip.

--Water in the plant well after you've planted it. Then, mulch it with several inches of woodchips. You needn't worry about fertilizing it the first season.

--Keep the top growth and root system in balance. Shorten the side branches of trees and reduce the height of shrubs. You may also wish to shorten the new "candles" of pale green needles of newly moved evergreens by about two-thirds.

--Water faithfully, every week or two, depending on temperatures and rainfall. Try not to overwater, which can lead to root rot. Check the topsoil to see that some drying has taken place before you water again.

# # #

# news

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MSC  
9/2/87

April 2, 1987

.Source: Deborah Brown  
612/624-7491  
Editor: Sam Brungardt  
612/625-6797

## EARLY SPRING LAWN TIPS

Having a nice lawn is mostly a matter of taking timely action and using the proper equipment and techniques. Deborah Brown, horticulturist with the University of Minnesota's Extension Service, offers these spring lawn care tips:

--As soon as the soil is firm enough to walk on without leaving footprints, rake the lawn to rid it of leaves and debris that have accumulated over the fall and winter. Don't use a heavy, metal garden rake that can gouge out tender, young grass. Use a light-weight, spring-action rake or a bamboo rake that will clean the lawn without digging it up.

--Fertilize when the grass begins to grow actively. If you fertilized late last fall, you probably won't have to fertilize until June. Even then, a reduced rate will probably be adequate.

--Select a fertilizer that approximates a 4:1:2 analysis (four parts nitrogen to every one part phosphorus and two parts potassium), such as 20-5-10, 24-6-12 or something similar. The 4:1:2 analysis provides the proportions of nutrients that generally are the most beneficial for lawns.

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--Wait until late April or early May to apply pre-emergence weedkillers to prevent crabgrass. Water the herbicide in well after you apply it. Even with an early spring, one shouldn't expect crabgrass to appear much before the middle of May.

--Repair dog spots and other dead areas by working up the soil and seeding or sodding. Soak the spots heavily with water first. You can sod by digging sections of grass that match well from less conspicuous parts of your yard and reseeding those areas from which you took the sod.

# # #

I,V4,V7

NAGR2006

April 2, 1987

Source: Cynthia Ash  
612/625-6290  
Editor: Sam Brungardt  
612/625-6797

## EARLY FUNGICIDE SPRAY GETS JUMP ON ROSE, RASPBERRY DISEASES

Gardeners who had problems with fungal diseases on their raspberries and roses last summer can get ahead of these diseases by applying a fungicide before growth begins this spring, says Cynthia Ash, assistant plant pathology specialist with the University of Minnesota's Extension Service.

"Many diseases overwinter on infected plant parts and cause new infections in the spring and summer when moisture is abundant and temperatures are conducive for disease development," Ash says. "The application of a fungicide called lime sulfur early this spring will eliminate overwintering disease organisms and get plants off to a healthy start."

Ash says the first step is to remove any dead branches, leaves or other plant parts. Mix the lime sulfur with water according to label directions. Spray all surfaces of the plants to ensure good coverage. Do not spray when the temperature is above 80 degrees F or below 45 degrees.

"Apply the spray to roses before the buds begin to swell to control rose black spot, rose powdery mildew, and rose rust," Ash advises. "On raspberries, spray when the buds show no more than one-half inch of green growth to control raspberry anthracnose and cane blight.

# # #

I,V4,V7

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NAGR2002

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April 6, 1987

Source: Mary McCauley  
612/624-1231  
Editor: Sam Brungardt  
612/625-6797

## FESTIVAL TO RAISE MONEY FOR AGRICULTURE SCHOLARSHIPS AT U of M

A festival that is to be held in an apple orchard during what is expected to be peak bloom will raise money for the University of Minnesota College of Agriculture's Bright Future Minnesota Scholarship program.

The event will be at Aamodt's Apple Farm, west of Stillwater, Minn., on the evening of Saturday, May 9. It will begin at 5 p.m., and feature an auction of donated items with celebrities Jan Ingrid Smaby and Eric Escola, hosts of KTCA-TV's "Almanac" program wielding the gavel; appetizers and a country dinner buffet with strolling musicians; a dance featuring The Electric Brothers; hayrides and hiking. Sen. Rudy Boschwitz and Marilyn (Carlson) Nelson are honorary chairpersons for the festival, and a number of civic, government and agribusiness leaders are expected to attend.

All proceeds from the event will go to the scholarship program, which is designed to attract students to agricultural programs at the university. Donations for the event are \$50 per person (\$40 of which is tax deductible). Donated items for the auction are being sought. For more information, contact Mary McCauley, College of Agriculture, 277 Coffey Hall, University of Minnesota, 1420 Eckles Ave., St. Paul, MN 55108; phone (612) 624-1231.

# # #

BSS,CEO,V1

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NAGR1862

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# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota <sup>MSU</sup>  
St. Paul, Minnesota 55108 <sub>9 A27p</sub>

April 6, 1987

Source: John Sem  
612/624-3070  
Writer: Mary Kay O'Hearn  
612/625-2741

## CONFERENCE WILL DEAL WITH COMMUNITY ECONOMIC DEVELOPMENT

Key economic development issues for Minnesota communities, including ways to retain businesses, will be highlighted April 22-24 at the Economic Development Conference at Cragun's Resort and Conference Center, Brainerd.

Six half-day workshops will include activities such as problem-solving exercises, assignments and short tests to improve economic development skills, says John Sem, state program leader for community economic development for the University of Minnesota's Extension Service.

The conference is intended for persons involved in management and delivering economic development programs for Minnesota cities and members of economic development boards and committees. After attending the conference, participants should be better equipped to develop effective economic development strategies, improve community retention of businesses, assess the impact of new tax laws on economic development financing and improve skills at putting together economic development packages.

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**University of Minnesota, U.S. Department of Agriculture, and Minnesota Counties Cooperating**

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The program will begin at noon April 22 and conclude at noon April 24. Checks for the \$65 registration fee should be made payable to the University of Minnesota and mailed to the Office of Special Programs, 405 Coffey Hall, 1420 Eckles Ave., University of Minnesota, St. Paul, MN 55108. Conference attendees should call Cragun's (1-800-432-3738) for lodging reservations.

Conference topics will include public organization and economic development, the Minnesota economy and trends for the future, how to start and manage a community economic development program, business retentions as a business strategy, impact of federal tax revisions on economic development financing, taxable and public financing systems, strategies for community economic development and economic development financing.

Among the speakers will be individuals from the National Rural Development Council; Midwest Research Institute; the University of Wisconsin; and the University of Minnesota's Extension Service, Humphrey Institute and academic departments.

Conference sponsors include the University of Minnesota; Minnesota Extension Service; Center for Urban and Regional Affairs; Small Business Development Center, U.S. Small Business Administration; and National Association of Housing and Redevelopment Officials.

# # #

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

MSC  
A27p

April 6, 1987

Source: John Sem  
612/624-3070

Writer: Mary Kay O'Hearn  
612/625-2741

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# # #

April 9, 1987

Source: Dee Ginthner  
612/624-3293  
Writer: Deedee Nagy  
612/625-0288

## RESEARCH POINTS OUT HOW LIGHTING AFFECTS OUR BEHAVIOR, DECISIONS

Lighting placement and levels can affect how we feel, how productive we are and even the consumer decisions we make.

Pioneering research done in Ohio and Pennsylvania by architect John Flynn shows that lighting can have a strong impact on our behavior.

His studies on commercial lighting have shown that people gravitate toward areas with certain combinations of lighting levels and color. Flynn also discovered that lighting can alter mood and color perception.

Certain lighting components suggest public, commercial space to most people. Research shows that overhead lighting, uniformly bright lights and bulbs with a white or blue color tone define public or work-oriented spaces. By contrast, lights around the periphery of a room, non-uniform levels of light and dim, rosy-hued bulbs give a room an intimate, private feel.

Whether it's natural light or artificial light can affect color perceptions as well, according to Dee Ginthner of the

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University of Minnesota's College of Home Economics. Decisions on home and office furnishings and decoration made under one type of lighting can be disappointing when viewed under different lights.

Ginthner is conducting research on interior lighting as it affects the safety and movement of senior citizens. She has found that sensory perception problems affecting some older persons makes proper lighting important to their safety. Some elderly persons are particularly sensitive to glare, and this is an important consideration when planning housing, health care facilities and other buildings that they will use. For some, the contrast between the color of walls and floors helps them orient themselves and maintain their stability. Lighting that downplays that contrast could pose a safety hazard, Ginthner adds.

# # #

BSS,CEO,E,G,S,V7,V4

NHEC1876

April 9, 1987

Source: Jerry Wright  
612/589-1711

Editor: Mary Kay O'Hearn  
612/625-2741

## IRRIGATION MAY HELP ESTABLISH COVER CROPS ON CRP LAND

Cover crops being established on irrigated land that is being placed in the Conservation Reserve Program (CRP) may benefit from one or more irrigations.

Pre-irrigation, before planting, may be a good choice if the soil is dry, says Jerry Wright, area agricultural engineer with the University of Minnesota's Extension Service. Adequate moisture in the topsoil helps provide a sound seedbed and good soil-to-seed contact for early, uniform germination.

"After planting, one or more light irrigation applications may also be a good decision if the surface soil becomes too dry before emergence or the surface seems crusted or hard," Wright says. Germination and early root development of shallow-seeded crops are most sensitive to soil moisture. Adequate soil moisture throughout the soil profile is needed for roots to develop to the fullest.

If rainfall isn't adequate later in the season, one or more irrigations may help maintain a healthy growing cover crop on more droughty soils.

# # #

AEA,BSS,CEO,V1,V4

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NAGR2011

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# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

April 9, 1987

Source: Kent Olson  
612/625-7723  
Michael Boehlje  
612/625-0231  
Writer: Jack Sperbeck  
612/625-4730

## EFFICIENCY IS MORE IMPORTANT THAN TOP PRODUCTION

"We should give prizes to farmers who produce a bushel of corn at the lowest cost," says Mike Boehlje, agricultural economist with the University of Minnesota's Extension Service. "In today's competitive foreign and domestic markets, the low-cost producer has a definite advantage."

The key is maximum economic yield. "This means spending less on inputs, especially on a per-bushel basis," says Kent Olson, a co-worker of Boehlje who works with Minnesota Farm Management Associations.

Olson cites 1986 figures from the Minnesota Southwestern Farm Management Association, where farmers who grew corn on their own land were grouped by returns to overhead costs. The top 20 percent had average direct costs (not including overhead) of 73 cents per bushel, compared to \$1.26 for the low 20 percent. Direct costs include fertilizer, seed, chemicals, crop insurance, fuel and oil, custom hire and repairs. Overhead costs include utilities,

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insurance, taxes, interest and depreciation.

Olson is quick to point out that higher yields for the top group (160 bushels versus 105 for the low 20 percent) were part of the reason for the lower per-bushel cost. But he stresses production efficiency--attention to details such as input costs, plant populations, and timing of fertilizer and chemical applications.

Farmers in the top group spent \$4.53 more per acre on fertilizer than the low 20 percent, and produced 55 bushels per acre more.

Helping farmers save money on fertilizer--without reducing crop yields--is the business George Rehm is in. "Many farmers have adopted cost-cutting measures that we started pushing hard in 1984," says Rehm, a soil fertility specialist with the Minnesota Extension Service. "We've stressed production efficiency from the beginning of the farm profitability crisis."

Rehm surveyed farmers in 19 Minnesota counties who had attended crop production meetings early in 1987. He asked farmers to estimate how much money they would save per acre if they made fertilizer management changes discussed at the meetings. Responses from 129 farmers averaged \$13.25 per acre.

Seventy-one of the farmers responding to the survey said they would not make changes in their fertilizer program. "Most said

they were already using the management practices that we had suggested two or three years ago," Rehm says. "Many Minnesota farmers have made changes in their fertilizer programs and have saved money."

Boehlje says the potential for savings for efficient production are even greater in livestock operations. Studies show that many dairy enterprises can increase net income by culling unproductive cows rather than by increasing herd size.

In many swine herds, the largest factor in feed efficiency is feed wastage; studies show the average feed wastage ranges from 1 to 23 percent.

For some producers, weaning more live pigs per litter can be a big improvement in efficiency. And the most efficient way to get rid of the manure in hog operations may be hiring labor--not spending money on facilities.

"It's possible to spend a lot of money on buildings and equipment to get rid of manure in hog operations. In some cases, you can hire labor to get the job done more efficiently," says Vern Eidman, economist with Minnesota's Extension Service.

In the 1970s, many farmers focused on volume--the highest yields per acre regardless of costs. "Now the focus is on efficiency," Boehlje says. "With today's narrow profit margins, farmers who are surviving are doing so partially through lower costs and improved efficiency."

# # #

April 9, 1987

Source: Jerry Wright  
612/589-1711  
Editor: Mary Kay O'Hearn  
612/625-2741

## TIPS FOR SHUTTING DOWN IRRIGATION EQUIPMENT ON CRP LAND

Farmers should give special attention to irrigation equipment that's on land being put into the Conservation Reserve Program, says Jerry Wright, area agricultural engineer with the University of Minnesota's Extension Service.

Wright adds, "Before shutting down any irrigation equipment, one or more applications of water may be very beneficial in establishing the required cover crop."

Wright offers these irrigation equipment shut down tips:

Always check with the well driller and irrigation equipment supplier to identify special shutdown maintenance requirements. One of these might be special water quality conditions that could affect the screen or pump.

Regulations require that any landowner who plans to remove a well from service temporarily or permanently must notify the Water Well Section, Minnesota Department of Health, 717 Delaware St. S.E., Minneapolis, MN 55440 in writing. If the shutdown is temporary and the pump will remain in the well, the Minnesota Department of Health will require the owner to cover all openings

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to the well casing with screen and to maintain the well so it won't become a source of, or channel for, contamination when not in service. If abandonment is to be permanent, a licensed well driller must properly seal the well.

Some suppliers recommend chlorinating the well in the spring and fall with H-T-H tablets to minimize iron bacteria buildup--if the well has a stainless steel screen. Do not chlorinate wells with other screen materials unless a provision for mixing is available because of the corrosiveness of chlorine products. The chlorination process involves dropping tablets into the well at a rate of 0.4 pounds for every 10 feet of water in a 12-inch-diameter casing and allowing them to dissolve. Contact a county extension office or Wright at the West Central Experiment Station, Morris (phone 612/589-1711) for bulletin information describing chlorination procedure.

**Pumps:** Most turbine pumps can be left in the well, but the shaft should be rotated a couple of times a year. To help force out any water in the column, run extra oil lubrication into oil column shafts. Lubricate the packing bearing and cover the pump discharge opening and other openings in the casing with a screen. Disconnect the suction pipe from the centrifugal pump and remove it from the water supply.

**Electric motors:** Most electric motors can be left in the field. Cover all openings with screen to prevent rodent damage to wiring. Don't cover with air-tight material such as a plastic bag; a motor needs ventilation to remain dry. Lubricate the upper and lower bearings at least annually. Ask the power supplier if any annual installation charges remain from the initial connection.

**Diesel engines:** These are best removed from the field and lubricated according to the manufacturer's manual.

**Pipe:** Remove all aluminum pipe that is in contact with the soil from the field. Allow moisture to run out of each pipe in storage. Remove the gaskets and store out of the sun.

**Center pivot:** Ask the dealer for any special maintenance tips. Keep good air pressure in the tires. Park the machine so its wheels won't be standing in water for long periods. Plug the pipe inlet with screen and lock the control panel.

# # #

BSS,CEO,V1,V4

NAGR2010

April 9, 1987

Source: Nancy Schumacher  
612/624-2782

Writer: Sam Brungardt  
612/625-6797

## U OF M RESEARCH STUDIES USES, MARKETS FOR SOLID WASTE COMPOST

With the help of a two-year grant from the Legislative Commission on Minnesota Resources, scientists are trying to answer basic questions about the potential for solid waste compost in Minnesota: Is there a market for it, and how large is the market?

The answers could have a major impact on the state's landfill abatement plans. Biodegradable material such as garbage and paper comprises a large part of Minnesota's solid waste. Composting this material and knowing how to use it could mean that less waste would need to be disposed of in landfills. Also, the state would have a homegrown substitute for the topsoil and soil amendments that some nonfood industries buy now.

One aspect of the research, which is being conducted by soil and horticultural scientists at the University of Minnesota, is investigating the chemical, biological and physical properties of solid waste compost. Which nutrients and contaminants does solid waste compost contain and in what levels? How does the incorporation of solid waste compost affect soil microbes and the

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soil's physical properties?

The research has included plant growth studies with container-grown ornamentals and greenhouse-grown bedding plants. In addition, the effects of applying solid waste compost to roadsides are being studied in small test plots along Highway 10 in Coon Rapids.

In another part of the study, potential users of solid waste compost in Minnesota--golf course superintendents, nurserymen, landscape contractors, cemetery maintenance personnel and others--were surveyed to determine which organic soil amendment materials they buy, how much they pay for them and how much of each they use. Another survey has tried to determine possible demand for solid waste compost among Twin Cities metro area farmers.

Results of the research and surveys will be made public this summer in a report to the commission.

# # #

BSS,CEO,L.S,V1,V4

NAGR1881

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota <sup>MSC</sup>  
St. Paul, Minnesota 55108 <sup>2A27P</sup>

April 9, 1987

Source: Cynthia Ash  
612/625-6290  
Editor: Sam Brungardt  
612/625-6797

## MINNESOTANS ARE ADVISED NOT TO PRUNE OAKS UNTIL JULY

Minnesotans who didn't get around to pruning their oak trees this winter should delay pruning them until July. Failure to do so may result in the death of very valuable and highly prized trees from oak wilt, says Cynthia Ash, assistant plant pathology specialist with the University of Minnesota's Extension Service.

"Oaks, especially red oaks, are susceptible to oak wilt," Ash says. "This fungal disease kills many oaks each year in the state. The disease has spread slowly, but it is now as far north as North Branch and St. Cloud and as far west as Mankato. It is most severe in the seven-county metropolitan area surrounding the Twin Cities."

Ash says oak wilt is easily identified in red oaks by a rapid wilting of infected trees. A tree will wilt completely in two weeks. Often, diseased trees occur in groups. The trees wilt from the top down, and individual leaves wilt from their tips to their bases, turning dull green, then brown. Fallen leaves are likely to be green at their bases.

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The leaves of infected white and bur oaks turn brown from their tips toward their bases. The change in leaf color tends to resemble fall coloration. White oaks may die in one year, but more often they die over several years. Bur oaks may die as quickly as red oaks or as slowly as white oaks, Ash says.

"Symptoms of oak wilt in the wood of infected trees resemble those of Dutch elm disease, although they are less conspicuous," Ash says. "The outer spring wood vessels are plugged with brown material, and brown streaks appear on the outside of the wood."

Ash explains that oak wilt is spread in two ways. Most infections result when the fungus moves from an infected to a healthy oak through a root graft. The fungus can be spread also by insects. The fungus produces spores on structures called "mycelial mats." The mats have a fermenting odor that attracts insects, especially sap-feeding beetles. As the beetles crawl over the mats, spores of the fungus adhere to them. When they fly to other oaks to feed on sap flowing from fresh wounds, they infect the trees with the spores.

"That's why the timing of pruning, is so important," Ash says. "Transmission of oak wilt by insects can be prevented by not pruning or otherwise wounding oaks in May and June. Because the weather--and activity of the beetles--varies from year to year, oaks should not be pruned from April 15 to July 1 to be safe. If wounding is unavoidable, a nontoxic tree wound dressing

should be applied immediately after a cut is made. Also, tree climbing irons should never be used to climb oaks. Another precaution is debarking, burning or wrapping infected red oaks in 4- to 6-mil plastic until July 1."

Ash says that wilting or recently wilted oaks should not be moved in any form, including firewood, to areas where oak wilt is not present. In the past, this has resulted in the transmission of the disease over long distances.

It's also important to stop the spread of the disease through root grafts, generally a job for a tree maintenance firm or park department. This can be done by running a vibratory plow with a 5-foot blade or a trencher between trees to sever grafted roots. Often, two barriers are recommended, one surrounding apparently healthy trees and another around obviously infected trees. If a vibratory plow or trencher cannot be used because of buried utility lines, a soil sterilant can be used, but this is not nearly as effective, Ash says.

# # #

I,V4,V7

NAGR2007

April 16, 1987

Source: Wanda Olson  
612/624-3780

Writer: Mary Kay O'Hearn  
612/625-2741

## LICENSING IS VITAL IN STARTING HOME-BASED GUEST BUSINESS

Licensing is a "must" in Minnesota when considering a bed and breakfast or farm vacation business.

After gaining zoning approval for what you want to do, consider what licenses you will need to start your operation.

### Food and Lodging

The Minnesota Health Department licenses food, beverage and lodging businesses, explains Wanda Olson, household equipment specialist with the University of Minnesota's Extension Service. Olson is one of the authors of a new extension publication, "Starting a Bed and Breakfast or Farm Vacation Business."

Bed and breakfast operations and farm vacation homes are licensed as a hotel/motel and restaurant, according to Olson. Annual inspections are made and many county or city health departments have contracts with the Minnesota Health Department to do this. A local or state fire marshal will inspect and note deficiencies. "Lodging and food service licensing fees cost about \$100 a year," Olson says.

If any remodeling or site work is to be done, local building

and zoning officials should be checked with first for a permit or an application for inspection. "Changes in plumbing or bringing electrical service up to date may mean the entire system would need to come up to code," Olson says. If the plumbing or electrical work is in the area used by the business, or is needed for the business, licensed contractors must complete the work.

The water supply and sewage disposal system must be approved. The water supply needs to meet purity standards for coliform bacteria and nitrates. An existing septic tank and drain field must be of adequate size to handle the additional use of the guest business. Requirements can be found in "Sanitary Specification in Well Water Supplies," published by the Minnesota Department of Health, and in "Septic Systems," published by the Minnesota Pollution Control Agency.

People thinking about starting a home-based guest business should ask to see "Starting a Bed and Breakfast or Farm Vacation Business" (item number CD-FO-3225) at a county extension office. It has names, addresses and phone numbers of appropriate resources to answer questions or supply copies of regulations and specifications.

# # #

AEA,CEO,V1,V4,V7,W

NCRD2031

April 16, 1987

Source: James Anderson  
612/625-8209

Writer: Jennifer Obst  
612/625-1978

## **NEW COMPUTER PROGRAMS WILL HELP FARMERS MAKE FERTILIZER DECISIONS**

Two new computer programs will be available this spring that will help Minnesota farmers make fertilizer use decisions and will help analyze water quality of runoff from Minnesota watersheds.

The fertilizer recommendation program was developed by Minnesota Extension Service soil scientists. The simulation program to analyze water quality--called AgNPS, for Agricultural Nonpoint Source Pollution--was adapted for personal computers by Minnesota Extension Service soils specialists. It is an adaptation of a model developed by the USDA-ARS North Central Soil Conservation Research Center, Morris, Minn., and the Minnesota Pollution Control Agency.

Fertilizer use and water quality are closely related, says University of Minnesota soil scientist James Anderson, who developed the computer program with soil scientist Pierre Robert. "An accurate fertilizer recommendation will have a positive effect on ground water quality," Anderson says.

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Using excess nutrients is an expensive waste in more ways than one. Not only do the chemicals cost farmers money, but there's growing awareness of the importance of runoff from agricultural lands as a source of nonpoint pollution. There is concern in particular about excess nitrogen fertilizer because of the proven hazard nitrates pose to human and livestock health.

However, Anderson says making correct fertilizer decisions can be difficult. "Our goal," he says, "is to give the farmer a good basis for decision-making using the soil fertility program in conjunction with a soil test. The fertilizer recommendation program will be available in each farmer's county extension office to provide the university-recommended fertilizer inputs regardless of who analyzed the soil samples."

AgNPS is intended for watersheds of 2.5 to 8,000 acres. It can be used to analyze pollutant loads from feedlots and to investigate the effects of implementing various fertilization and conservation practices including impoundment terraces. The program can also predict water quality parameters at intermediate points throughout the watershed network. The program predicts runoff volume and peak rate; eroded and delivered sediment; and nitrogen, phosphorus and chemical oxygen demand concentration in the runoff.

# # #

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

April 16, 1987

Source: Michael Zins  
612/777-8156

Writer: Mary Kay O'Hearn  
612/625-2741

Editors: Call your county extension office(s) in your circulation area to get information on local Master Gardener program(s).

## **MINNESOTA'S MASTER GARDENER VOLUNTEER PROGRAM IS 10**

It's 10 years old--Minnesota's Master Gardener program--and an example of how well volunteerism can work as National Volunteer Week is observed April 26-May 2.

"Master Gardeners represent all walks of life, from young men and women in their 20s to retirees in their 70s," says Michael Zins, University of Minnesota area horticulture agent, who helps coordinate the Minnesota Extension Service's Master Gardener program.

Minnesotans may have seen Master Gardeners conducting plant clinics at shopping malls or garden centers, presenting educational programs on television, teaching community education classes, or explaining how plants grow to elementary students or 4-H groups. Or, they may have read one of the many newspaper columns written by Master Gardeners; heard Master Gardeners answer callers' questions on radio; or seen them giving gardening advice at county extension offices.

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There are probably more than 800 active Master Gardeners volunteers statewide. Of course, many more have received Master Gardener training, but some people continue their Master Gardener volunteer work longer than others.

"Ramsey County has 77 master gardeners, and at least a dozen of those who started in the program in the metro area 10 years ago are still active," says Zins.

Many gardeners rely on local "experts" for help. The Master Gardener program began in 1972 at Washington State University as a way to identify and offer these experts comprehensive training through the Extension Service.

This is how the Master Gardener program works in Minnesota: The University of Minnesota's Extension Service provides 48 hours of free training in topics related to gardening--soil and fertility management; ornamental plant materials; horticultural techniques; insect, disease and other pests control, lawn culture, vegetable and fruit growing, landscaping, and house plant culture. In addition, Master Gardeners receive a notebook of extension publications for future reference.

To become a certified Master Gardener in Minnesota, a person must do 50 hours of volunteer work (coordinated through his or her county extension office) the first year after training and 25 hours in subsequent years to remain certified.

Zins says there have been interesting spinoffs from the training. One couple, he recalls, became so interested they returned to college for horticulture degrees. Several have found employment in Minnesota's

horticultural industries. At least one Master Gardener has become a member of his county's extension advisory committee, which helps plan county extension programs.

But the program's prime purpose, Zins says, is "getting information to people." It is a local community answer to the growing popularity of gardening and the need for a way to accurately disseminate the University's educational information about home horticulture.

Hennepin County has 77 Master Gardeners. Among their activities is putting together a weekly newspaper column on gardening that reaches 23,000 people is one of its activities.

In Blue Earth County, some of the county's dozen or so Master Gardeners helped conduct a special spring gardening seminar at Mankato State University in March that was attended by 138 people. Wendy Bode, a horticultural assistant in the Blue Earth County Extension Office, says of their commitment, "Some Master Gardeners do hundreds of volunteer hours a year even though they may only have to put in 25."

In early April, the Carlton and St. Louis counties held a joint training to update their Master Gardeners, according to Lee Raeth, Carlton County extension agent. Farm and garden tours in the two counties are often conducted by Certified Master Gardeners.

Anyone who is interested in becoming a Master Gardener volunteer is urged to contact his or her county extension office.

# # #

AEA,CEO,I,V1,V4,V7

NAGR2029

April 16, 1987

Source: Wanda Olson  
612/624-3780

Writer: Mary Kay O'Hearn  
612-625-2741

## **GUEST BUSINESSES MUST DEAL WITH FIRE CODES, INSURANCE, TAX**

Fire regulations and adequate insurance are important items when thinking about starting a bed and breakfast or farm vacation business.

A new University of Minnesota Extension Service publication, "Starting a Bed and Breakfast or Farm Vacation Business," will help answer questions on these subjects.

### Fire and Lodging Regulations

The size of the business determines the fire safety requirements, says one of the authors of the publication, Wanda Olson, a household equipment extension specialist. Detailed fire safety standards, available from fire marshals and building inspectors, specify the number and type of exits from the sleeping rooms, the required smoke detectors, fire alarms and fire extinguishers. The fire safety standards list other types of unsafe conditions, such as interior surface finishes that would allow flames to spread quickly, improper storage of flammable materials and an attached garage without a firewall.

Lodging regulations establish minimal standards for bathroom facilities and a minimum size for sleeping rooms: 70 square feet of usable floor space or 60 square feet for each person in the room if it is to be used by more than one person.

## Insurance and Sales Tax

A current homeowner's insurance policy won't cover the risks associated with paying guests--a general liability insurance policy is necessary, Olson says.

Coverage for a bed and breakfast or farm vacation business should include house and contents, medical (per person and per occurrence) and liability. "Several liability policies on bed and breakfast businesses have been written for \$500,000," Olson says. Assess and manage your risk by working with your insurance agent to determine an appropriate liability limit for your situation. Look for insurance coverage from a firm that has experience writing policies for this type of hospitality business. Some companies can offer special coverage for home ventures including the guest business.

Remember, rates charged for guest accommodations and meals are subject to Minnesota sales tax. A Minnesota sales and use tax permit must be obtained before starting the business and making any taxable sales. Ask the Minnesota Department of Revenue for "M.B.A. Application for Minnesota Tax Identification Number."

"Starting a Bed and Breakfast or Farm Vacation Business" (item number CD-F0-3225) is available from county extension offices throughout Minnesota. It contains names, addresses and phone numbers of appropriate resources to answer questions or supply copies of regulations or specifications.

# # #

April 16, 1987

Source: Phillip K. Harein  
612/624-3777

Writer: Mary Kay O'Hearn  
612/625-2741

## **\$82 MILLION ESTIMATED LOSS TO INSECTS IN GRAIN STORAGE**

Grain value shrank an estimated \$82 million in 1986 in Minnesota due to insect damage while stored on the farm or in country elevators, says Phillip K. Harein, entomologist and grain storage expert with the University of Minnesota's Extension Service.

Harein expects this much or more loss during 1987. He surveyed 60 locations throughout Minnesota to compile the data.

Looked at another way, the 1986 estimated loss is 5.1 percent of the total stored grain value of \$1.6 billion in the state. The \$82 million loss breaks down this way: \$54 million in discounts of infested grain at the time of sale, \$21 million from grain weight loss and \$7 million in cost of treatment (residual insecticides and fumigants). Greatest losses were in corn, followed by wheat, barley and oats, the four stored grains surveyed.

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"The clear message to farmers and country elevators doing storage," Harein says, "is to use more nonchemical methods such as good sanitation and aeration as fewer chemicals are being made available."

Harein says the mild winter didn't save grain from severe insect losses. It just meant insects didn't have to dive for the center of bins to stay alive and escape the cold. They were just as active, only weren't as concentrated in the grain and had more leg room, so to speak.

Comparable grain losses in stored grain in 1981, 1982 and 1983 averaged an estimated \$54 million of the then stored crop. Of that total figure, \$18 million was in discounted grain, \$32 million in grain weight loss and \$4 million in treatment cost.

Harein is sending a copy of the survey to University of Minnesota Extension Offices in each of the 87 counties. He's emphasizing nonchemical solutions to the problem.

# # #

AEA,BSS,CEO,V1,V4

NAGR2037

April 16, 1987

Source: Juanita Reed  
612/625-9231  
Editor: Sam Brungardt  
612/625-6797

## **4-H'ERS RECEIVE SCHOLARSHIPS FROM LIVESTOCK ASSOCIATION**

The Minnesota Livestock Breeders' Association (MLBA) has awarded two Minnesota youths scholarships for their achievement in 4-H livestock projects.

David Shimota, son of Mr. and Mrs. Gene Shimota of rural Foley, will receive the \$450 McKerrow Scholarship from the MLBA. Shimota is a 13-year 4-H member in Benton County, where his major livestock projects were in sheep and beef cattle. He began his sheep project with a market lamb and now has a flock of 14 Columbian and Hampshires. Simmentals were his choice for his beef project, and he now has six cows and five calves. Shimota is a junior at the University of Minnesota, Twin Cities campus, where he is studying animal science and agricultural economics. He is a member of Alpha Gamma Rho fraternity and is vice president for alumni relations for the Minnesota Simmental Association.

Steele County 4-H'er Bill Arthur will receive the \$450 MLBA Scholarship. Arthur is a senior at Owatonna High School, but he is also taking classes at the University of Minnesota Technical

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College, Waseca. Sheep have been Arthur's primary livestock projects. He owns and manages a flock of 50 registered Suffolk and 10 commercial ewes. Arthur was a state 4-H livestock achievement winner in 1985, and he has an outstanding record of leadership in county and district 4-H livestock programs. One of the more significant efforts that Arthur initiated is the Adventures in Sheep Land program for urban youth. He has also planned and conducted farm visits for grade school students, including preschoolers and handicapped youngsters. Arthur is the son of Mr. and Mrs. Erwin Arthur of rural Ellendale.

# # #

V1,05,79

N4-H2033

April 16, 1987

Source: Larry Jacobson  
612/625-8288  
Writer: Jennifer Obst  
612/625-1978

## DUST IN FARM BUILDINGS IS HUMAN HEALTH CONCERN

For those who work in livestock buildings, farmer's lung may be an occupational hazard like miner's lung.

"Research on the effects of dust in farm buildings on livestock performance has led to concern for human health," says Larry Jacobson, agricultural engineer with the Minnesota Extension Service. "In fact, the farmer is more at risk than the animals, and the long-term effects of dust are far more likely to be on the human side."

Jacobson and University of Minnesota agricultural engineer Kevin Janni and environmental hygienist Chuck McJilton have been focusing on the potential for health problems in Minnesota livestock buildings. McJilton has focused on human health in livestock buildings. In their research for the university's Agricultural Experiment Station, Janni has studied air quality effects on poultry and Jacobson has studied managing dust in swine buildings.

"Farmer's lung is caused by the continual inhaling of dust over the years, which lowers the capacity of the lungs and causes

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coughing, shortness of breath and leads to or aggravates other respiratory diseases," Jacobson says.

There has been increasing interest in the problem among farmers as well as other groups such as the insurance industry, Jacobson says. "One of the reasons for the increased interest is, as farms become larger, there are employees who work all the time in this environment rather than a farmer who does other things and may be in the barn for only part of the day. So, the risks are accentuated," he says.

How to protect one's self from the health hazards of dust? Jacobson recommends using dust masks as a minimum precaution. For protection against finer dust particles, a rubberized mask with a filter is better, although more expensive and less comfortable.

Dust and gases are the two main airborne hazards in farm buildings and they require different remedies. A dust mask, Jacobson points out, won't protect a person from gases. "There are two ways to solve noxious gas problems," says Janni. "You can control the source, which in most agricultural buildings is manure, or increase ventilation to remove the gases that are produced."

However, increasing ventilation does not necessarily help suppress dust. On the contrary, Jacobson found that lowering the

ventilation rate helped suppress dust. "In our studies, we saw that less ventilation increased the humidity, which settled out a lot of the dust," he says. "Certainly, if you lower the ventilation rate too much, you run into problems with gas or moisture. We did some studies where we ventilated at lower-than-acceptable rates. There was no dust, but it was like a sauna and we had gas problems."

While the perfect solution to dust problems has yet to be found, Jacobson recommends use of a dust mask as a practical and inexpensive precaution. He uses one on all farm visits. "I find the response I get to it is more often than not positive," he says. "The farmer usually says, 'I should be doing that too.'"

# # #

BSS,CEO,P,V1

NAGR1870

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

April 16, 1987

Sources: Claudia Parliament  
612/625-3727  
Barbara Koth  
612/625-4751  
Writer: Mary Kay O'Hearn  
612/625-2741

## STARTING NEW BUSINESS INVOLVES RISK

Investing in any new business involves risk--dollars invested may not earn a return or may even be lost. This applies to bed and breakfast (B&B) and farm home vacation businesses, as well.

But the need for a well thought out business plan which carefully estimates income and expenses is vital in every business, says Claudia Parliament, economist with the University of Minnesota's Extension Service. She and Barbara Koth, in extension tourism development, are among the authors of "Starting a Bed and Breakfast or Farm Vacation Business" (item no. CD-FO-3225), which is available from county extension offices throughout Minnesota.

B&Bs are found on farms and in rural communities as well as larger cities. As part of a private residence, these offer short-term overnight stays with breakfast included in the room charge. They are known for the personal services and amenities offered. Farm vacation businesses usually provide additional meals and guest activities.

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"On average, small businesses do not earn a profit in the first two years," Parliament says. One reason for small business failure is not projecting and obtaining enough working capital for those initial years. The small-business owner should expect to provide 35 to 50 percent of those total financing needs, Parliament says. The balance, if the owner has the collateral, may come as a commercial bank loan.

Most B&Bs are supplemental sources of income, bringing in \$1,000 to \$4,000 per year. It may be well to consider how much the same 35 to 50 percent investment could be earning in something other than the proposed business or even figure what individual earnings would be working for someone else.

Pricing overnight rates is one critical step to financial success. Rates in Minnesota (1987) have varied from \$20 to \$80 for double occupancy. Estimate costs carefully to insure that the price charged covers costs at the occupancy projected. It is essential also to estimate costs that vary with occupancy rates--such as utilities, cleaning, repairs and maintenance and food.

Several sources of assistance can help point to the financial skills needed for business success. "A Guide to Starting a Business in Minnesota," is a publication available at no charge from the State of Minnesota's Small Business Office.

Marketing a business is essential. "There are ways to piggyback paid advertising with a combination of inexpensive promotion and free publicity to keep your business in the public eye," says Koth.

Packaging tours can work to the advantage of several businesses, making a variety of services, such as lodging, food, entertainment and transportation, available for an inclusive price. An example could be working with a local restaurant and theatre to offer a price break for the complete overnight package.

Word of mouth--satisfied guests--is still the best business promotion. An evaluation form is a good way to determine how well guests' expectations have been met and how business could be enhanced. "Continually check with guests to find out how they learned about your home. Study the results, update objectives and investigate why sales have increased or declined," Koth says.

# # #

AEA,BSS,CEO,V1,V4,W

NCRD2034

April 16, 1987

Source: Cynthia Ash  
612/625-6290  
Editor: Sam Brungardt  
612/625-6797

## SPRAYING IS ONLY PRACTICAL WAY TO DEAL WITH CEDAR-APPLE RUST

Homeowners who want to keep their apple trees healthy and harvest blemish-free fruit should initiate a spray program this spring to control cedar-apple rust, says Cynthia Ash, assistant plant pathology specialist with the University of Minnesota's Extension Service.

Ash says severe infections of this fungal disease can cause heavy defoliation, which weakens apple trees. It also reduces fruit quality; infected fruits have lesions, internal discoloration and may be misshapen.

"Cedar-apple rust lives on red cedar juniper trees during the winter and on apple trees during the summer," Ash explains. "The fungus forms brown galls, 1/4 to 2 inches in diameter, on young growth of red cedars. These galls are often called cedar-apples. In the spring, they produce bright orange tendrils during wet weather. These tendrils are columns of spores which are released to infect nearby apple trees."

Ash says symptoms of infection on apple leaves are small spots, which are pale yellow at first but quickly turn

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pink-orange as they enlarge to about 1/4 inch in diameter. The centers of these spots contain drops of orange liquid at first and later tiny, black dots, barely visible to the unaided eye.

Ash says, "Since the cedar-apple rust fungus requires two hosts to complete its life cycle, the complete removal of either host will eliminate the disease. Unfortunately, removing all red cedars within a 1- to 2-mile radius of your apple trees is not practical. Removing the apple trees isn't the solution either.

"If cedar-apple rust is a problem on your apples, remove the galls on nearby red cedars and spray your apple trees with a fungicide to prevent severe rust infections. Apply maneb, ferbam or zineb at the pink stage, when the flower buds show pink at their tips; at petal-fall, after three-fourths of the petals have fallen; in a first cover spray, 7 to 10 days after petal fall; and again 7 to 10 days after the first cover spray. All four applications may not be necessary in a dry spring. Be sure not to apply any fungicides within 30 days of harvest."

# # #

V4,V7,I

NAGR2003

April 16, 1987

Source: Harold H. Alexander  
612/624-0779

Writer: Mary Kay O'Hearn  
612/625-2741

## CHECK YOUR HOME AS A GUEST MIGHT

Ambiance--that word from French and Latin meaning the environment, surroundings--should be a serious consideration if you're thinking of starting a bed and breakfast (B&B) or farm home vacation business.

Size up your home, as a guest might, suggest Harold H. Alexander, interior design and furnishings specialist with the University of Minnesota's Extension Service.

Alexander suggests this approach: "Do some play-acting. Enter your home as though you were a stranger. Have family members greet you. Go to the guest room and stay in it for a night. What do you need that's there? What's not there? Is the bed comfortable? Is there adequate seating, a place for a suitcase, a place to hang clothes? Does the room smell and look fresh and clean? Is the bathroom nearby? Do you have to share it with the family? Is it easy to find your towels? Is breakfast served in your room, the dining room, or kitchen? What's been done to make the food attractive, and is the food good?"

Alexander says every home should have its own abiance, be a unique environment. Architecture, furniture styles (mixes of accessories

should reflect the family living there. It needn't be old, ornate, historic, or a mansion to be different, special and something that will be fondly remembered.

"It's not unusual for guests to return again and again to favorite B&B or farm home vacation locations and to develop long-lasting friendships with the owners," Alexander says.

Despite Minnesota's lakes, abundance of scenery and interesting sights, not every place will draw tourists and travelers. Alexander says, "You may not want to spend the time and money to establish a business that caters to travelers. Perhaps a business based on local needs and customers would be a better idea."

Alexander says owners and their families must ask themselves whether they are willing to share their home with others before they venture into a guest business. A home-based business takes a friendly, open and informative outlook. "Guests must always come first and must be welcomed cordially, even if it's been 'one of those days,'" Alexander says. "The days will be consumed by your guests and details of keeping the home attractive."

Steps to take in analyzing your present assets, from location to family skills, and what more will be needed are included in a publication, "Establishing the Ambiance in a Bed and Breakfast or Farm Vacation Home: (item number HE-F0-3219), which is available at county extension offices throughout Minnesota.

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# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

MSC  
2A27p

April 23, 1987

Source: Wanda Olson  
612/624-3780  
Writer: Mary Kay O'Hearn  
612/625-2741

## **MANY REQUIREMENTS MUST BE MET WHEN SERVING FOOD TO PAYING GUESTS**

Many people thinking about starting a bed and breakfast or farm home vacation business may not realize that they need to take food licensing into account.

"If food service is beverages, purchased rolls and pastries, only a limited food license will be needed," says Wanda Olson, household equipment specialist with the University of Minnesota's Extension Service. She is one of the authors of a new publication, "Starting a Bed and Breakfast or Farm Vacation Business." If prepared meals are limited to 10 or fewer guests, household kitchen equipment is allowed with the restaurant license. Beyond that limit of 10, restaurant regulations apply.

Food service requirements for serving meals to 10 or fewer guests include use of either an automatic dishwasher in which the plate temperature reaches 160 degrees F or handwashing in a three-compartment sink using an approved chemical sanitizer and air drying.

Home-canned and home-frozen foods cannot be used in food preparation. Fresh, home-grown fruits and vegetables can be served if pesticides were

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applied according to recommendations in the Minnesota Extension Service's weed, insect, and disease control guides. There will be no excessive residue on produce if current pesticide label directions are followed and the preharvest interval (the elapsed time between application and harvesting) is observed. There are stringent Environmental Protection Agency and Food and Drug Administration regulations on pesticide residue levels.

County extension offices in Minnesota have weed, insect, and disease control guides for vegetable and fruit crops. Owners of home-based guest businesses who intend to serve produce that they grow to their guests should follow the pesticide application recommendations in these guides to ensure that pesticides are properly used.

"If homemade jams or jellies are to be served, they, too, must be prepared in line with Minnesota Department of Agriculture regulations," Olson says. "Manufacture of Jams and Jellies for Retail Sale" (Extend-U--ask for it at Minnesota Extension Service county offices) lists the requirements for preparation in approved facilities, together with processing and labeling methods. The family kitchen is not an "approved facility."

Ask to see "Starting a Bed and Breakfast or Farm Vacation Business" (item number CD-F0-3225) at a county extension office. It includes names, addresses, and phone numbers of appropriate resources to answer questions or supply copies of regulations and specifications.

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# news

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Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota <sup>MSC</sup>  
St. Paul, Minnesota 55108 <sup>2A27p</sup>

April 23, 1987

Source: Earl Fuller  
612/625-6760  
Writer: Jack Sperbeck  
612/625-4730

## NO 'ONE WAY' TO DO FARM BALANCE SHEETS

There's no one way to do a farm balance sheet that tells everyone who reads it what they need to know.

"It's a myth to say there's only one way to value assets on a balance sheet," says Earl Fuller, farm management economist with the University of Minnesota's Extension Service. "The problem is that different readers of balance sheets want to know different things," he says.

"It's fairly easy to provide data on existing liabilities. But it's harder to value many intermediate and long term assets," Fuller says.

"Some people want to know the value of assets if they were liquidated as a forced sale this week. Others want to know what careful liquidation would bring.

"People with equity in the business want to know if their equity is earning more invested in the business, compared to other investments. And other owners may want to know if the business is earning enough to justify putting more capital into the business.

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"We also have the conflict of interest issue between debtors and creditors in mediation or bankruptcy. So while the fair market value is simple in principle, it's not so simple in practice," Fuller says.

"When a market is 'thin' or there are few other 'like transactions' to go by, there's a lot of judgment involved. If shading values to the low side helps one party, it hurts the other."

Accountants who prepare income statements look at the issue in a different way. Accountants argue that windfall gains and losses due to changes in the market price of assets should not be reflected in the measurement of profits--and management. The accountants' approach requires two asset columns. One uses values on a cost basis while the other uses a market value approach (due to lender interest). Equity lenders are more concerned with security in asset value than in asset productivity, Fuller says.

"The 'proper' way to do a balance sheet depends on what the data is to be used for. That's why most financial analysts say it's more important to read the footnotes than to examine the numbers," Fuller says.

"If you're preparing balance sheets or financial statements, you need to add clear, concise footnotes that explain how you valued assets. This way any disagreements about values can at least be discussed rationally," he says.

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# news

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433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

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April 30, 1987

Source: Jeffrey D. Hahn  
612/624-4977

Editor: Sam Brungardt  
612/625-6797

## WASP CONTROL SHOULD BEGIN IN SPRING

Has it really been half a year since we had to worry about wasps? Yes, and warm weather will soon bring us face to face with them again. Jeffrey Hahn, entomology educator with the University of Minnesota's Extension Service, offers these wasp-control tips:

--If you have an old wasp nest in or around your home, you might be tempted to spray it this spring to make sure that none of the wasps survived. However, this isn't necessary; the wasps in the nest all died from a lack of food or the cold. New wasps will not reuse old nests.

--The wasps that are seen first in the spring are mated females or queens that left the nest the previous fall. They are the only survivors from their colonies. When the queens are found inside at the beginning of spring, it is because that is where they spent the winter and they are just waking up. They move very slowly and sluggishly at this time and can be killed easily with a flyswatter or a rolled newspaper.

--As it continues to warm up, each queen will begin to

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construct a nest. Your first reaction might be to spray the nest right away. But if the queen is killed early in the spring before she establishes her territory, another queen could move in and start another nest. It's best to wait until early June to spray, when the queen has established her territory. Other queens will not attempt to build nests in the same location at that time, even though the queen is gone.

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I,V4,V7

NAGR2044

# news

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Source: Jeffrey D. Hahn  
612/624-4977  
Editor: Sam Brungardt  
612/625-6797

## AVOIDING BLACK FLIES ISN'T EASY

It's nice to be able to go outside and enjoy the sun again, But as spring advances, Minnesotans exchange the cold for various insect problems. One that's especially annoying is black flies.

Jeffrey Hahn, entomology educator with the University of Minnesota's Extension Service, says black flies--which are also called "gnats"--are small (only 1/20 inch long), stout insects that can be vicious biters.

"Black flies usually first appear in May at dusk and dawn," Hahn says. "Although they can be found in open areas on windy days, they are more common in lowlands, areas of thick vegetation and sheltered areas, especially when it's calm."

Hahn says black flies are attracted to the carbon dioxide in breath and usually swarm around one's head. Dark colors, such as navy blue, also attracts them.

He says, "Black flies like to bite exposed skin, especially around the hairline, feet, ankles and arms. Sensitivity to these bites varies. Some people hardly notice the bites, while others experience much irritation and swelling."

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In the Twin Cities area, there are two types of black flies. Both types swarm around the head, but only one of them usually bites. Hahn says it's not known why the second type does not bite people, although they are still very annoying.

"Unfortunately, there is no guaranteed way to avoid black flies while they are in season," Hahn says. "Although they should not be as bad this year as they were last year, bites can be minimized by avoiding areas with high black fly numbers and wearing light-colored clothes. Remember that black flies prefer the dawn, dusk and sheltered areas. Insect repellants, including those with a high concentration of DEET (N,N,-diethyltoulamide), are not very effective on black flies."

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I,V4,V7

NAGR2043

# news

Communication Resources  
Minnesota Extension Service  
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University of Minnesota  
St. Paul, Minnesota 55108

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7 A27p

April 30, 1987

Source: Deborah Brown  
612/624-7491

Editor: Sam Brungardt  
612/625-6797

## CHOOSE ANNUALS FOR COLOR IN DRY PLACES

Are you looking for ideas to brighten up a hot, dry part of your yard or to create an attractive display in a low-maintenance location? There are quite a few annual flowers that can fill the bill as long as sunlight is ample, says Deborah Brown, horticulturist with the University of Minnesota's Extension Service.

"Many flowering annuals that withstand relatively dry growing conditions come in sunny colors: yellows, golds, oranges and mahogany," Brown says. "Marigolds, nasturtium, African daisy, California poppy, tithonia (Mexican sunflower) and caliopsis all radiate the sun's bright color in the landscape.

"Sanvitalia or creeping zinnia is a delicate groundcover that has small, golden or orange, daisy-like flowers with black centers. Sanvitalia 'Mandarin Orange' was considered noteworthy enough to earn an All America Selections Award for 1987, as did Gazania 'Mini-Star Tangerine' in 1985. Both are great choices for hot, sunny, low-moisture situations."

Brown says people who prefer reds and pinks should consider

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geraniums, salvia, portulaca or moss rose, verbena, dwarf zinnias and annual phlox. She adds that even petunias are fairly modest in their demands for water.

"Dusty miller, kochia and snow-on-the-mountain--the annual Euphorbia, not the perennial groundcover for shady places--all contrast nicely with their gray or green foliage," Brown says. "They, too, are well suited to drier locations.

"With so many choices, it should be easy to grow a lovely bed of flowers, even if the soil is sandy or you're not able to water frequently. Heat and drought will eventually take their toll on any plant, though, so consider these flowers to be more tolerant of dry conditions than most, not completely tolerant. Only plastic plants fit that description, and they're no fun."

# # #

I,V4

NAGR2041

# news

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Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

MSC  
A274

April 30, 1987

Source: Cynthia Ash  
612/625-6290  
Editor: Sam Brungardt  
612/625-6797

## WET WEATHER COULD INCREASE BOTRYTIS PROBLEMS ON PEONIES

Botrytis blight is one of the things that can keep peonies from flowering. Luckily, there may be little or no Botrytis blight in many areas of Minnesota this spring unless the weather turns wet. That's because the fungus that causes this disease does not thrive during dry weather, says Cynthia Ash, assistant plant pathologist with the University of Minnesota's Extension Service.

She says, "Botrytis blight attacks the stems, buds and leaves, first manifesting itself in the spring, when the shoots are about 1 foot long. The shoots suddenly wilt and fall over. Gently pull up these stems and check their base. If Botrytis blight is the culprit, a brown-to-black rot should be visible. Above that area, the fungus may be evident on the stem as a mass of gray mold with gray-to-brown, powderlike spores.

"These spores are spread by wind to other plant parts, causing a bud rot and leaf blight. Young buds turn black and dry up. Larger flower buds, open flowers, stems and leaves that become infected turn brown and may produce a mass of

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gray-to-brown spores during wet weather. The longer it stays wet, the more blight one can expect."

Ash says one defense is to apply a preventative fungicide, such as basic copper sulfate, mancozeb, maneb or benomyl, in the spring. "Begin spraying when the new shoots break the surface of the soil and spray every 7 to 10 days until the flowers open," Ash advises. "Remove and destroy all infected plant parts as soon as you notice them during the growing season."

However, because the fungus overwinters at the base of the plant, Ash says the best way to protect peonies from Botrytis is to remove all stems and leaves in the fall. Cut each stalk just below the soil surface, removing as much of it as possible without damaging the bud.

# # #

I,V4,V7

NAGR2045

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

MSC  
A27F

April 30, 1987

Source: Deborah Brown  
612/624-7491  
Editor: Sam Brungardt  
612/625-6797

## SHORT HORT SUBJECTS FOR SPRING

Spring's the perfect time to choose that azalea, lilac or flowering crabapple that you've been wanting, says Deborah Brown, horticulturist with the University of Minnesota's Extension Service. By seeing these and other spring-flowering shrubs and trees in full bloom at a nursery or garden center, you can choose the one that's just right for your landscape.

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Use caution when applying weedkillers, urges Deborah Brown, horticulturist with the Minnesota Extension Service. Spray only on calm days to minimize the chances of the herbicide drifting onto desirable plants. Check the forecast to see that no rain is expected for 24 to 48 hours. Best results can be had when weeds are growing actively, at temperatures in the 60s, 70s or low 80s.

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"Allow the leaves of tulips, daffodils and other spring-flowering bulbs to remain in the garden as long as they appear healthy," advises Deborah Brown, horticulturist with the University of Minnesota's Extension Service. Once the leaves

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begin to yellow, they may be cut off and discarded.

Meanwhile, interplant drought-tolerant annuals such as moss rose, marigold, gazania, creeping zinnia or verbena among the bulbs. Water them sparingly all season, to avoid rotting the dormant bulbs.

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Now's the time to decide whether or not you're going to spray your apple trees this summer, says Deborah Brown, horticulturist with the Minnesota Extension Service. The first application should be made when flower buds show pink tips and the second should be made when most of the flowers have fallen to the ground. Then, you need to spray every 7 to 10 days, maybe even more often it's a rainy summer, right up to harvest time.

Brown says, "If you can't follow through with a conscientious spray program, it's probably not worth your while to spray at all. You won't be pleased with the results."

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Deborah Brown, horticulturist with the University of Minnesota's Extension Service, says, "Hold off laying grass clippings or other organic mulch in the garden until June, when the soil has warmed thoroughly. Mulching too early keep the soil cool, retarding the growth of everything except the cool-season

vegetables."

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Once new green growth appears on junipers, yews and arborvitae, you can prune them and still be sure that you've left enough to keep them healthy and growing, says Deborah Brown, Minnesota Extension Service horticulturist. The trick is to not cut so far back into the woody portions of these conifers that no new growth remains. If the evergreens are growing really rapidly, you can prune them a second time to keep them in bounds. Complete pruning by mid-July for best results, Brown advises.

# # #

I,V4,V7

NAGR2047

# news

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433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

April 30, 1987

Source: John True  
612/625-9733  
Editor: Mary Kay O'Hearn  
612/625-2741

## **DON'T RISK 'EXTRA RIDERS' ON FARM EQUIPMENT**

All accidents are sad, but some of the saddest of farm accidents involve adults and children who fall from moving equipment and are crushed.

Runovers accounted for about one of every four farm tractor fatalities in 1985, according to National Safety Council information quoted by John True, agricultural engineer with the University of Minnesota's Extension Service.

"'No riders allowed' should be the strict rule on all farm equipment to prevent tragic deaths and injuries," True says.

The Minnesota Extension Service urges all farmworkers and residents to follow these safety guidelines:

--Keep children (and all nonworking adults) off and away from farm equipment--don't give in to requests for a ride. Cabs are not a safe place for passengers, either, because they are not protected by safety belts and may distract the driver.

--A tractor, combine or other self-propelled machine is not a suitable place to babysit. Arrange for child care away from work areas.

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--Remove keys from farm equipment when you park it, and lock the cab. Remove the keys from the ignition if you are working on the equipment--you would not want the machine to start unexpectedly.

--Provide safe transportation for workers in cars or trucks rather than allow them to ride as extras on machinery.

# # #

BSS,CEO,V1,V3,V4

NAGR2040

# news

Communication Resources  
Minnesota Extension Service  
433 Coffey Hall  
University of Minnesota  
St. Paul, Minnesota 55108

April 30, 1987

Source: Michael Boehlje  
612/625-0231

Writer: Jack Sperbeck  
612/625-4730

## U OF M ECONOMIST HAS "REALISTIC OPTIMISM" FOR AGRICULTURE

"I'm a 'realistic optimist' that agriculture is ready to make a gradual recovery," says Mike Boehlje. "We're roughly at the bottom of a 'U' shape, meaning recovery will be slow," says Boehlje, extension economist with the University of Minnesota's Extension Service.

"We won't see a fast, 'V'-shaped recovery, but there are several optimistic signs," Boehlje says. Among these are:

--Commercial bankers dealing with agricultural loans feel they have identified most of their problem loans and have a plan for resolution.

--Although Farm Credit Services has problems, it is taking aggressive steps to remedy the situation.

--Farm input costs for corn and soybeans are 25 to 30 percent less than they were in 1981.

--Interest rates and land rental rates are down.

--We're starting to see small acreage reductions in other countries in response to low prices. Canada, the European

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Community, Australia and South American countries are reducing production.

--Loans for spring planting should be available. "Last year, we were hearing predictions that 15 percent or so of farmers would not get operating loans for planting. I've heard no predictions like that this year," Boehlje says.

"Words like restructure, recovery, reorganization and restarting describe farming today, Boehlje says. "We're not looking at runaway optimism and affluence in agriculture. But there are good opportunities for people thinking of recycling or restarting in farming."

But all may not be rosy. Low feed grain prices and good cash flow opportunities in livestock could cause a "second wave" problem in agriculture, Boehlje cautions. "There's the real potential we'll have very low prices in the livestock sector. We could see hogs in the mid- to high thirties by the second quarter of 1988," he says.

Boehlje knows some farmers who are anticipating lower livestock prices and are selling some assets now in order to stay in business in the next few years. "I'm not predicting another crash, but there are potential problems in the livestock industry," he says.

# # #

AEA,BSS,CEO,V1,V4

NAGR2049

April 30, 1987

Source: David Davis  
612/624-4911  
Writer: Jack Sperbeck  
612/625-4730

## FINE TUNING MANGE TREATMENTS FOR HOGS

If it's not broken, don't fix it. And if hogs aren't doing much scratching and rubbing, you may not need to treat for mange.

David Davis, research entomologist with the University of Minnesota's Agricultural Experiment Station, is working on a "scratch and rub" test that will help hog producers judge the severity of mange. The study is partially funded by the Minnesota Pork Producers through the University of Minnesota's Swine Center.

"Research in England on mild infestations showed no decrease in growth rate or feed efficiency," Davis says. But an Australian study showed severe cases of mange caused growth rate and feed efficiency to drop 9 to 12 percent. The major problem for hog producers is they have no reliable means to judge severity of mange. "The thrust of our study is to develop ways to judge disease severity and relate it to losses in growth rate and feed efficiency," Davis says.

"We're basing our study on the Australian research, where pigs that scratched the most and had many red lesions were the

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ones suffering losses in growth rate and feed efficiency," he says. Pigs with crusted, asbestos-like lesions (usually in ears of older animals) aren't particularly bothered by the thousands of mites.

"We think the red lesions and associated scratching are the result of the pig's immune response, very similar to an allergy," Davis says. "If an animal responds immunologically it will develop the red lesions and begin to scratch. These animals are bothered by the infestation. Pigs not responding to the mite may be more prone to develop the crusted lesions containing many mites, but aren't suffering losses," Davis suggests.

"But we believe pigs with heavy infestations and crusted lesions should be treated. Otherwise they can spread mites to other pigs, who may develop the red lesions."

Davis hopes results from his study will lead to an on-farm study to judge the severity of the disease in commercial herds. Estimates would be made on anticipated losses if the infestations were allowed to continue.

With this information, producers may be able to weigh the benefits and costs of control. Farmers could then make better economic judgments and use pesticides only when needed.

# # #

AEA,BSS,CEO,V1,P,S

NAGR2048

# news

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433 Coffey Hall  
University of Minnesota  
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Source: Michael Boehlje  
612/625-0231  
Writer: Jack Sperbeck  
612/625-4730

## WILL THERE BE A LEADERSHIP VOID IN AGRICULTURE?

There's reason to be concerned about a leadership void in agriculture. It won't happen today or tomorrow, but by 1995 to 2000 we could have a shortage of people with the background to make important decisions in agriculture, says Mike Boehlje, economist with the University of Minnesota's Extension Service.

Enrollment in agricultural colleges has taken a skid that closely parallels the farm profitability crunch. "There has been an overadjustment in the market. Important jobs in the agricultural business sector will require trained people," Boehlje says.

Employers making hiring decisions put top priority on finding motivated people with good work habits who have communication skills. "Technical skills such as knowledge of crop and livestock production are important, but good human relations skills are rated higher by employers," he says.

# # #

AEA,BSS,CEO,Q,V1,V4

NAGR2050

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