

May 1, 1986

Source: Jeffrey Hahn  
612/624-4977

Editor: Anne Gillespie Lewis  
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 we change seasons, we exchange the cold for various insect problems. Among those that are especially annoying are biting flies," says Jeffrey Hahn, entomologist University of Minnesota's Extension Service.

One of the nastiest in Minnesota are black flies, also called gnats. They are small (only 1/20 inch), stout, dark-colored and vicious biters. They usually appear in May at dusk and dawn. 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 is calm.

"Black flies are attracted to the carbon dioxide in your breath and usually swarm around your head. Dark colors, such as navy blue, also attract them. Black flies like to bite exposed skin, especially around the hairline, feet, ankles and arms," Hahn says. Sensitivity to these bites varies. Some people will hardly notice the bites, while others experience much irritation and swelling.

Page 1 of 2

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Last spring two different species were seen in the Twin Cities. Both species swarmed around the head, but only one of them actually bit. It is not known why the second species, while still very annoying, does not bite people.

"Unfortunately there is no guaranteed way to avoid black flies while they are in season," Hahn says, "but 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, -diethyltoluamide), are not very effective on black flies, Hahn adds.

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# news

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Source: Jill O. Pokorny  
612/625-0233

Editor: Anne Gillespie Lewis  
612/625-6797

## SPRING ARRIVING MEANS FUNGAL LEAFSPOT DISEASE ON SHADE TREES

If spring brings cool, rainy weather, the many different fungi that cause leafspot diseases will thrive, says Jill Pokorny, plant pathologist with the University of Minnesota's Extension Service. Extended periods of cool, moist weather, as leaves are emerging, foster a high incidence of fungal leafspot diseases on shade trees.

The occurrence of fungal leafspot diseases is also dependent on the presence of infected leaves and twigs from the previous year; however, a generous supply is nearly always present. The main limiting factor to the development of fungal leafspot diseases is insufficient moisture. "Fungal leafspotting organisms require very high relative humidity and, in most cases, the presence of free water on leaf surfaces for several hours in order to cause infections. Consequently leafspot diseases do not develop every year," Pokorny explains.

Chemical treatment of fungal leafspot diseases are usually not necessary. In spite of the unsightliness, they rarely cause more than minor damage. In fact, well-established trees could be defoliated by a leafspot disease in the early spring and releaf

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again, often within a few weeks.

"Smaller, newly transplanted trees may not be able to withstand the stress of heavy leaf loss and may need protection. Available fungicides are preventative, not curative, so they must be applied before the leafspots occur," Pokorny says. The fungicides must be applied when the leaves are just beginning to emerge from the buds and repeated at 7- to 10-day intervals if the weather remains wet. No single fungicide is labeled for control of all fungal leafspot diseases on all shade trees. Check fungicide labels carefully before use.

Certain cultural methods can help minimize the occurrence and impact of fungal leafspot diseases. "A major source of new infections are last year's infected leaves and twigs, so rake and destroy infected leaves as they fall and prune out dead branches. And, although we can't turn off excessive spring rains, we can promote air circulation and help leaves and branches dry more quickly by pruning excessive twig and branch growth." Pokorny concludes, "Keep trees growing vigorously to improve their ability to withstand the stress of leaf loss. Water trees regularly during dry periods and fertilize to boost tree vigor."

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## CONTROL CEDAR APPLE RUST WITH RESISTANT VARIETIES, FUNGICIDES

If structures resembling orange sea urchins appear on your cedar trees (which are actually junipers), they are infected with a fungal disease called cedar apple rust, says Jill Pokorny, plant pathologist with the University of Minnesota's Extension Service. Although little harm is done to the cedars, apples and crabapples can experience enough injury to warrant chemical control.

"Since this fungus must infect both cedar and apple trees in order to complete its lifecycle, removal of susceptible cedar trees or dormant galls on the cedar trees may seem an obvious way of control," says Pokorny, "but these methods are usually impractical and are not recommended." The spores can be carried from any infected cedar within a quarter-mile radius, so removing the dormant galls or the cedars in the immediate vicinity may not completely eliminate the source of infection for your apple tree.

The best way to control cedar apple rust is to plant apple varieties that are resistant to the disease. The most resistant are Honeygold McIntosh, Northwestern Greening, Red Delicious, Red

Page 1 of 2

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Baron Regent, State Fair and Dolgo. Honeygold, Red Delicious, and Regent are only marginally hardy in the Twin Cities area and should not be planted further north.

"You can protect apple trees from cedar apple rust by using a chemical spray," Pokorny advises. "Two fungicides that are labeled and recommended for use by homeowners are ferbam and zineb, which are marketed under various trade names and are usually available at garden centers. General purpose fruit sprays usually do not contain these fungicides, so ferbam or zineb must be applied in combination with or in addition to most general purpose fruit sprays."

Spray in the early stages of bloom (when the petals are pink) and again when the petals start to fall. Spray two more times, at intervals of 7 to 10 days, up to the middle of June. In rainy weather, shorten the intervals to 4 to 7 days.

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Source: Deborah Brown  
612/624-7491

Editor: Anne Gillespie Lewis  
612/625-6797

## MAY IS CRABGRASS PREVENTION TIME

The old saying, "an ounce of prevention is worth a pound of cure," certainly holds true for crabgrass control. By the time you see nasty clumps of crabgrass going to seed late in summer, the plants are so tough that little will dent them. The time to act is now, says University of Minnesota horticulturalist Deborah Brown. Brown is with the University of Minnesota's Extension Service.

"In the Twin Cities, crabgrass usually germinates right around Memorial Day. It might be a week earlier in the very southeastern portion of the state, and it will certainly be a bit later the further north you live," says Brown. However, you will want to put down an application of crabgrass preventing, pre-emergent herbicide about two weeks before the anticipated crabgrass germination date. This gives it a chance to become fully active in the soil by the time the seeds are ready to sprout, Brown advises.

Page 1 of 2

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Although you may find pre-emergent herbicides sold separately, they are most commonly available in combination with lawn fertilizer. In either event, be sure to water the product into the soil after application. Pre-emergent herbicides will kill seeds as they are in the process of germination. They are not effective against plants that have already sprouted, only against seeds still in the ground.

Many different pre-emergent herbicides do a good job in the lawn. However, if you have just seeded with bluegrass, you must choose a product containing siduron (Tupersan), a pre-emergent that will kill crabgrass seeds but spare the bluegrass, Brown cautions.

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May 1, 1986

Source: Laddie Elling  
612/625-4298  
Writer: Anne Lewis  
612/625-6797

## BLUEGRASS SEED PRODUCTION ON UPSWING

Nearly 30 years after its release by the Minnesota Experiment Station, Park Kentucky bluegrass is still going strong, despite some ups and downs.

To help ensure that the variety remains strong, the Minnesota Crop Improvement Association (MCIA) funded a \$2,500 project that involves repurification of some seed lines that showed occasional off-type plants.

The project involved transplanting cores of the 15 breeder seed lines from Rosemount to Roseau and using data on those plants to establish purified sources of the 15 basic lines, according to experiment station researcher Laddie Elling.

Elling has worked on the Park variety for many years. He and Everett Helmstetter, a Park grower from the early years, think the bluegrass is on the upswing again.

Helmstetter, who is active in the Northern Minnesota Bluegrass Growers Association, has stuck with the variety through good times and bad. At the high point, in 1974, about 20,000 acres in northwestern Minnesota were producing, with a total

Page 1 of 2

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yield of more than 7 million pounds of seed. In more recent years, severe drought in 1980, a slowdown in the housing industry and low bluegrass prices compared to grain prices prompted many bluegrass growers to choose other crops. In 1985 about 2 million pounds of seed were produced.

The Helmstetters (Everett farms with his brother and nephew) stayed with Park, using it in rotation with small grains. Helmstetter says weeds are not nearly as much of a problem in grain after several years of bluegrass.

The price of bluegrass jumped in 1985 while grain prices declined. Also, the weather limited grain harvesting; at least 25 percent of the grain was not harvested in 1985, Elling says.

Although Elling and Helmstetter doubt that Park will ever regain its 1974 glory days, it's still a multimillion dollar industry that brings capital to a part of the state that sorely needs it. Park bluegrass is good for the grower and homeowner both, Elling says. Production costs on bluegrass are much less than with small grains and it is easy to maintain a Park lawn. "It remains one of the best low-maintenance turf varieties," Elling says.

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AEA,BSS,CEO,1,4,F,S

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# news

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May 1, 1986

Source: Juanita Reed  
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Writer: Hank Drews  
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## APPLICATION DEADLINE NEARS FOR 4-H COLLEGE SCHOLARSHIPS

June 16 is the application deadline for current and former Minnesota 4-H'ers who want to compete for thousands of dollars in scholarships. County extension offices have more information including application forms and details of eligibility for youth who want to make application.

The following scholarships are available:

--\$1,000 scholarships for minority 4-H members to pursue an agriculture-related career at a Land Grant college. Ten are provided by E. I. du Pont de Nemours and Co.

--a \$1,000 scholarship from Webster Industries Inc. for a college freshman 4-H'er in a food preservation project who plans a career in nutrition, food services or a related field.

--two \$1,000 scholarships from the American Rabbit Breeders Association toward a career in agriculture, home economics or a closely related field. Recipients must be high school seniors or college freshmen who have completed a 4-H rabbit project.

--three \$1,000 scholarships for 4-H'ers involved in dairy goat projects who plan careers in agriculture, home economics or

Page 1 of 3

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related fields. These are provided by the American Dairy Goat Association for high school seniors or college freshmen.

--two \$1,000 scholarships from "Who's Who Among American High School Students," and a \$750 scholarship in memory of pioneer 4-H leader Gertrude L. Warren for students in any field of study who were influenced by 4-H in selecting a career.

--one \$3,000 scholarship from the Tobe-Coburn School for Fashion Careers for a youth interested in a fashion industry career. The recipient will enroll during 1987 in a 10-month program at the school in New York City.

--four \$1,000 scholarships from DeKalb AgResearch Inc. for senior or freshmen year 4-H'ers interested in agricultural careers.

--a \$1,000 scholarship, donated by Education Foundation of Alpha Gamma Rho, for a 4-H'er who will be a college freshman this fall and is planning a major in agriculture, forestry, veterinary medicine or a closely related field.

--three \$1,000 scholarships, donated by Wayne Feed Division of Continental Grain Co. for present or former 4-H'ers who will be college juniors or seniors with a major in animal science.

--two \$1,000 scholarships from Champion Valley Farms Inc. for former 4-H'ers enrolled in a college of veterinary medicine.

--five \$1,000 scholarships from the Chicago and North Western Transportation Co. for a current or former Minnesota 4-H'er who is a college junior, senior or graduate student majoring in forestry, agricultural business or agricultural economics.

--two \$1,000 scholarships provided by the Edwin T. Meredith Foundation for former 4-H members in any field of study.

Minnesota youth are also eligible for the \$400 Ball Brothers Scholarship for 4-H members with outstanding records in food preservation. 4-H is a part of the Minnesota Extension Service, University of Minnesota.

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# news

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Source: Philip Goodrich  
612/624-1205

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

Agents/Editors: You can use this as three short items; or with some minor editing, as one longer story.

## CONSIDER MANURE FERTILIZER THIS SPRING

Animal manure, too often discounted by farmers in favor of easily handled, ready-to-apply commercial fertilizers, should be looked at closely this spring as a way of replacing borrowed credit from a lending institution.

"The animal manure produced by dairy cows, beef cattle, pigs and turkeys can provide a large portion of the needed nutrients for producing crops in many areas," says Philip Goodrich, agricultural engineer with the University of Minnesota's Extension Service.

Consider, too, the residual effects of nutrients that have built up in the soil with fertilizer use over the years. "Look at the past records of your fields. If sufficient amounts of manure have been applied over the years, it may not be necessary to apply any fertilizer at all, or you may be able to receive reasonable yields with only a small amount of a starter

Page 1 of 4

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fertilizer," Goodrich says.

A study on corn at the West Central Experiment Station, Morris, bears this out. Manure applications were made in 1970-71, but none have been made since. Where liquid beef manure was applied, grain yields in 1983 were 130 bushels per acre, in 1984, 110 bushels and in 1985, 106 bushels.

"Yes, yields are decreasing slightly, but no fertilizer of any sort has been applied to those residual manure beef plots in over 10 years of continuous corn," Goodrich says. The comparison between these liquid beef plots and those which have received commercial fertilizer yearly--over a 14-year average--shows only a 3 bushel per acre drop in yield.

# # #

**Applying Manure.** Unlike commercial fertilizers, the nutrient contents in animal manures don't come clearly labeled. Here are some manure application guidelines from Philip Goodrich, agricultural engineer with the University of Minnesota's Extension Service.

Manure from various sources differs in the actual nitrogen, phosphorus, potassium and micronutrient analysis, "but it still provides the nutrient to crops when it is wisely applied," Goodrich says.

The typical manure from a dairy barn with a liquid manure pit beneath or outside the barn, may contain 24 pounds of nitrogen,

18 pounds of phosphorus and 29 pounds of potassium in each 1,000 gallons of raw manure. If properly applied to cropland and cultivated into the soil immediately, it would replace the need for 12 pounds of nitrogen, 17 pounds of phosphorus and 28 pounds of potassium.

At 20 cents a pound for nitrogen, 30 cents a pound for phosphorus and 13 cents a pound for potassium, the value of this manure nutrient system is \$11 per 1,000 gallons of manure, Goodrich says.

# # #

**Manure Supplies Organic Matter.** Manure's organic matter supplies extra benefits, especially on sandy soils low in organic matter.

Proper application of the animal manure is essential because the ammonia nitrogen can be quickly lost if the manure is spread on top of the soil and the ammonia is allowed to evaporate. Inject liquid manure or cultivate it into the soil within one hour after spreading, advises Philip Goodrich, agricultural engineer with the University of Minnesota's Extension Service.

If you don't have animals to supply manure for crops, check with a large producer who might be happy to sell excess to someone willing to haul it away.

"Some farms now owned by insurance companies and banks may be sources of manure for neighbors--if there are empty confinement units or storage ponds on farms that are no longer producing animals. Investigate all the possibilities," he says.

For further information, ask to see MWPS-18 "Approximate Values for Animal Manure Analyses" in the Livestock Waste Facilities Handbook at your local County Extension Office. For an analysis of your livestock's manure, consult a laboratory which does feed samples environmental analyses. This is a more precise way of determining application rates, Goodrich says.

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AEA,BSS,CEO,1,4,A,D,F,P

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# news

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M. ...  
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Source: Deborah Brown  
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Editor: Anne Gillespie Lewis  
612/625-6797

## BUYERS BEWARE - SOME PLANTS NOT FOR MINNESOTA

Spring fever has hit gardeners with a bang. As you read magazine and newspaper ads, promising plants of untold beauty and spectacular gardening results that seem too good to be true, try to be a little skeptical. It's awfully easy to get stung by a bad ad, says Deborah Brown, horticulturalist with the University of Minnesota's Extension Service.

"Every year we are inundated by claims for zoysia grass, but zoysia is a poor choice for Minnesota," Brown cautions. "When it does survive and spread, people want to kill it because it is coarse and unattractive, and very slow to green up in spring."

Vine peaches sound luscious, but when you plant them you had better not have your heart set on peach cobbler; they're just edible gourds.

There is no evidence whatsoever that Gopher Purge plants do anything to repel gophers; and Deodorant Plants--scented geraniums--smell terrific when you crush the leaves between your fingers, but they won't keep your house smelling fresh and clean, Brown says.

Page 1 of 2

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"Cyphomandra or tree tomato is not a true tomato at all, but is a fruit tree grown in orchards in New Zealand for its tart, red fruit which are sweetened with sugar and eaten as dessert. It would take several years for this plant to reach bearing size, and it is highly unlikely you'll ever get any fruit off of it indoors, as the ads claim," says Brown.

Northern kiwi may be hardy in parts of the state. It is supposed to be okay to 20 or 25 degrees below zero. Its fruit is very different from the southern kiwi you find in the supermarket, however. Lacking the brown, fuzzy coating, they look more like large green grapes than kiwi fruit. Unfortunately the catalogues show pictures of the southern kiwi in advertising its northern cousin, Brown says.

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## PRUNE, SPRAY TO CURB WITCHES' BROOM APHID ON HONEYSUCKLE

"It wasn't too long ago that having a honeysuckle in your yard was a good deal. There were no consequential insects or diseases to worry about, and all you had to do was prune it every once in a while to keep the honeysuckle happy," says Jeffrey Hahn, entomologist with the University of Minnesota's Extension Service.

However, that changed when the honeysuckle witches' broom aphid arrived in May 1981. The aphid gets its name from the mass of smaller shoots (called a witches' broom) that form due to the aphid's feeding. Although this affected the honeysuckle's appearance, it did not appear to be health threatening to the plant.

Hahn adds, "Now there are new indications that this aphid seriously injures and can even kill honeysuckle." What can be done to control this pest? Pruning and spraying Orthene, a contact and systemic insecticide, will help. Begin chemical

Page 1 of 2

treatments around the middle of May with four additional applications at three-week intervals.

"Pruning should be done when the honeysuckle is dormant," Hahn advises. Pruning will improve the appearance of the honeysuckle and help eliminate overwintering eggs that are in the witches' brooms. However, this may not be practical for people who have many honeysuckles. Ultimately the best control will be resistant varieties of honeysuckles. Emerald Mound, Clavey's Dwarf and Arnold Red are resistant varieties that currently are available at some nurseries.

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Source: Jeffrey Hahn  
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## WATCH FOR BIRCH LEAFMINER

Most people appreciate a birch tree or two in their yard. Unfortunately, plenty of insects like birch trees, too. One of the more troublesome birch pests is the birch leafminer, according to University of Minnesota entomologist Jeffrey Hahn. Hahn is with the University of Minnesota's Extension Service.

Birch leafminer adults emerge in the spring as the birch is leafing out. The females at this time lay eggs singly into the leaves. These eggs will hatch into small caterpillar-like insects. The larvae will feed on the leaf tissue between the upper and lower leaf surfaces creating a "mine." The mines start out small but get progressively larger, sometimes covering the whole leaf.

"Most people don't notice the damage until it is too late for effective control," says Hahn. While light to moderate damage affects the appearance of the birch, consistently heavy damage will stress the tree and leave it open to possible attacks from other pests.

Page 1 of 2

"Birch trees that suffered damage due to birch leafminer last year can be sprayed with Orthene during midspring when the mines are still small," Hahn advises. "Because of the early spring last year in the Twin Cities, the birch leafminer first appeared during late April and early May. However, during a normal spring they appear around the middle of May. If treatment is attempted after this time, control will not be effective."

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## NEW COSMOS VARIETY WINS ALL-AMERICAN AWARD FOR '86

This year only one new flower was deemed worthy of introduction as an All-American selection. The winner, Sunny Red Cosmos, should prove a favorite with gardeners in the upper midwest where summers are hot and humid, but may be quite dry, says Deborah Brown, horticulturalist with the University of Minnesota's Extension Service.

Sunny Red Cosmos is a bright red cosmos that turns a rich red-orange as the blossoms mature. Compact plants, 2 feet tall by 2 feet across, provide a brilliant splash of color in the flower garden all summer.

"Like other cosmos, Sunny Red is extremely trouble-free and easy to grow. It blooms rapidly when direct-seeded in the garden around mid-May, but can be started indoors for even earlier results," says Brown.

Check local seed racks and mail-order seed catalogues for packets of Sunny Red Cosmos. In some areas you may even find Sunny Red available as bedding plants at your favorite garden center or nursery.

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Page 1 of 1

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## ORCHID LIGHTS IS NEWEST RELEASE IN U OF M AZALEA SERIES

The University of Minnesota has released Orchid Lights, another in its series of "lights" azaleas, says University of Minnesota's Extension Service horticulturalist Deborah Brown. Orchid Lights will undoubtedly enjoy the same popularity as its close relatives, Pink, White, Rosy, Spicy and Northern Lights azaleas.

"Orchid Lights blooms a little earlier than the other Minnesota azaleas, but it is tough as any," says Brown. "It's hardy to 40 or 45 degrees below zero." Its stature is slightly smaller, as are its leaves and flowers. Orchid Lights reaches a height of about 3 feet at maturity, with a spread that is wider than it is tall.

"Lights" azaleas do best planted in partial shade, in good, well-drained soil with a low (acid) pH. Incorporation of peat helps acidify the soil, as does fertilizing with plant food specially formulated for acid-loving plants, Brown advises.

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Page 1 of 1

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Source: Jill O. Pokorny  
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## START SPRAYING IN MAY TO PREVENT APPLE SCAB

To prevent apple scab, start a spray program in May for highly susceptible apple varieties, says University of Minnesota plant pathologist Jill Pokorny. Pokorny is with the University of Minnesota's Extension Service.

"Apply the first spray at pink stages, again at 3 to 4 petal fall, and repeat weekly, as needed, throughout the growing season," Pokorny advises. Among the fungicides labelled for control of apple scab are captan and benomyl. Captan is a component of most general purpose insect sprays.

"Remember, there are some resistant apple varieties available, such as Dolgo and Chestnut," Pokorny adds.

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Source: Deborah Brown  
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## TWO UNUSUAL VEGETABLES WIN ALL-AMERICA AWARDS FOR '86

"The All-America Seed Selection choices for 1986 are a couple of unusual vegetables that you'll surely want to try in your garden if you're the adventurous type," says Deborah Brown, horticulturist with the University of Minnesota's Extension Service. One is a very fine white sweet corn called How Sweet It Is (White). The other is Blondy, an improved compact okra with pale pods.

As its name implies, How Sweet It Is (White) is an incredibly sweet tasting white corn. Best of all, it holds this elevated sugar content well after harvest.

"Plant seeds directly in the garden once the soil warms," Brown advises, "about the same time you would plant squash and cucumbers." Make sure the block of corn is isolated from other corn varieties to ensure it will have the high sugar content and good keeping quality for which it was chosen.

Most Northerners haven't had much experience with okra, but there's no time like the present to give it a try, Brown says.

Page 1 of 2

Blondy okra is easy to grow and begins to produce edible pods within about 48 days, which puts it well within our growing season capabilities.

Wait to plant Blondy until the ground has really warmed and night temperatures are above 50 degrees. Harvest pods while they are still quite small, only 2 to 3 inches long.

Okra can be used as a cooked vegetable; but is also tasty and nutritious sliced raw, like little wheels, added to fresh salads.

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Source: Mervin Eisel  
612/443-2460  
Editor: Anne Gillespie Lewis  
612/625-6797

## BRIDGE GRAFTING CAN SAVE SOME RODENT-DAMAGED TREES AND SHRUBS

Field mice and rabbits have caused extensive serious damage to shade trees, shrubs and fruit trees during the winter, according to University of Minnesota's Extension Service horticulturalist Mervin Eisel. "The early, deep snow protected field mice from predators," says Eisel. "Their damage normally occurs from near the ground, while rabbit damage occurs from near the ground to high in the plant, depending on snow depth."

When the bark is eaten often the cambium, the thin layer inside the bark responsible for carrying food down to the root system, is destroyed. This is often referred to as girdling.

"If this layer is removed around the plant stem, the part above will die," says Eisel, "but stems where a third or more of the bark remains are likely to survive."

Bridge grafting can be used to save fruit trees that have had all or a major portion of the bark removed. Obtain a copy of the Minnesota Extension Service publication "Grafting and Budding Fruit Trees" (item number AG-BU-0532) from your county extension office.

Page 1 of 2

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Young shade trees that are 2-3 inches in diameter that have had all their bark removed should be cut to the ground before growth starts, Eisel advises. "Quite often several new sprouts will appear. The strongest should be saved and supported by a stake for a couple years. The other sprouts should be removed to the ground, unless a clump tree is desired," he adds.

Shrubs or portions of a shrub that have been injured should be cut to within 2 inches of the ground before growth starts. All deciduous shrubs have this ability to resprout from the base.

Injury to spreading evergreens is often not evident until after growth starts. Girdling often occurs near the ground. Girdled branches will brown and should then be removed at the main trunk or living branch.

# # #

1,4,7,I

NAGR1335

# news

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

May 1, 1986

Source: Steve Taff  
612/625-3103  
Writer: Jack Sperbeck  
612/625-4730

## STATE OFFERS SECOND CONSERVATION RESERVE OPTION FOR FARMERS

With the federal Conservation Reserve Program (CRP) reopening May 5-16, Minnesota farmers should keep another land retirement program in mind. It's the new Reinvest In Minnesota (RIM) Reserve.

Although the two programs are similar in many respects, there are some important differences between RIM and the CRP, says Steve Taff, agricultural policy economist with the University of Minnesota's Extension Service. These differences may influence a farmer's decision about participation in one program or the other.

Under the RIM Reserve, county Soil and Water Conservation District officials will target specific lands and offer a flat amount to purchase either a 10-year or a permanent easement, which is a property right. "The RIM Reserve is basically a take it or leave it proposition that will be made to farmers. In contrast, the CRP program is based around bids made by interested farmers," Taff says. Other key points on the two programs:

--The state will initially target lands based on how susceptible they are to either wind or water erosion and on their capacity to support improved wildlife habitat. Local officials will decide which of these eligible lands to acquire, so not all eligible lands will be

Page 1 of 2

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acquired.

--Absentee landlords are not eligible for RIM Reserve funds, unless they farm somewhere else in Minnesota.

--The federal program pays farmers for a 10-year contract; the state program acquires an easement. An easement is potentially a much more restrictive agreement.

--The state will make a one-time, up-front payment, compared to the ten annual payments under the CRP. "As a result, the lump sum RIM Reserve payment could be important for farmers who need cash very soon. It could also have significant tax implications for the same reason," Taff says.

--A farmer with a RIM Reserve easement may not convert any non-cropland to cropland on any Minnesota farm over the period of the easement. There is a similar provision in the 10-year CRP program, Taff notes, but the Minnesota requirement will also apply to the permanent easement option.

Many of the RIM Reserve regulations are tentative and will not become final for some time. But farmers will be able to get more definite information by June, Taff says. He encourages farmers with questions about the state program to check with their county Soil and Water Conservation District or Minnesota Extension Service offices.

"There is no right or wrong answer for every farm or for every farmer. Each situation is different and farmers should carefully consider the economic and management implications of these land retirement options," Taff emphasizes.

# # #

# news

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

May 1, 1986

Source: Patrick J. Borich  
612/624-2703  
Writer: Jack Sperbeck  
612/625-4730

## MINNESOTA EXTENSION SERVICE TO BE REVIEWED

A review of the Minnesota Extension Service is being carried out by the University of Minnesota's Board of Regents.

The Minnesota Legislature asked the regents to conduct the review and report back to it by the 1987 session. The Minnesota Extension Service, formerly the Agricultural Extension Service, has been a unit of the University of Minnesota since 1910.

The Minnesota Extension Service has county and area agents throughout the state and has offices in every county. A staff of specialists and support and administrative personnel is located on the St. Paul Campus. Programs are offered in agriculture, home economics, 4-H youth development, and community and natural resource development.

"I welcome this evaluation," says Patrick J. Borich, dean and director of the extension service. "The review committee can help us take a hard look at what we do and should be doing. The committee may be able to zero in on some problems and help us solve them."

Page 1 of 2

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The review committee will be chaired by Margaret Langfeld, Anoka County commissioner. Other members include state Sen. Gene Waldorf, St. Paul; state Rep. M. R. (Bob) Haukoos, Albert Lea; Brown County Commissioner Charles Griebel; Stevens County Commissioner Robert Stevenson; and Robert Orth, Metropolitan Inter-County Association, St. Paul.

Three additional committee members are from extension services in other states. They are Patrick Boyle, chancellor of University of Wisconsin Extension, Madison; Gail Imig, program director for home economics, University of Missouri, Columbia; and Leo Lucas, director of Cooperative Extension, University of Nebraska, Lincoln.

Staffing for the committee will be provided by Barbara Muesing, secretary of the Board of Regents. People who wish to contribute to the review may write: University of Minnesota Board of Regents, 220 Morrill Hall, Minneapolis, MN 55455.

# # #

AEA,BSS,CEO,1,4

NEXT1320

May 8, 1986

Source: Mark Seeley  
612/625-4724  
Writer: Jack Sperbeck  
612/625-4730

## NEW COMPUTER PROGRAM ON EUROPEAN CORN BORER

A new computer learning program on the European corn borer has been developed by the University of Minnesota's Extension Service.

The program was developed for people who don't have a background in pest management, says Mark Seeley, agricultural climatologist with the extension service. The new computer program gives background information, history, importance and life cycle of the European corn borer.

It also tells you how to scout fields for damage and gives control options. The last severe outbreak in Minnesota was in 1983. That year crop losses were over \$200 million in Minnesota, according to figures compiled by Ken Ostlie, extension service entomologist.

Ostlie and Seeley developed the new program. It runs on IBM-PC and compatible computers. It will soon be available from

Page 1 of 2

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county offices of the Minnesota Extension Service. It can also be purchased from the Distribution Center, Minnesota Extension Service, 3 Coffey Hall, University of Minnesota, St. Paul, MN 55108.

The cost is \$30 retail and \$15 wholesale. Minnesota residents should add sales tax. Ask for distribution number AG-CS-2607. Checks should be made payable to the University of Minnesota.

# # #

CEO,AEA,BSS,1,4,F

NAGR1349

May 8, 1986

Source: Marlene J. Forbes  
301/656-9000  
Writer: Hank Drews  
612/625-4248

## TWO MINNESOTA 4-H ALUMNI JOIN NATIONAL 4-H STAFF

Two Minnesota 4-H alumni, Paul Wilker, Owatonna, and John Luebke, Mayer, have joined the National 4-H Council staff as program assistants. They will work with council staff members to plan, conduct and evaluate youth and adult education programs.

Wilker, 24, has been in 4-H for 14 years. For four of those years he was a volunteer leader. He was an international 4-H exchange to Norway in 1979, worked in Pierce County Cooperative Extension Service in Wisconsin as a 4-H and Youth Development summer agent, and while in college worked with several 4-H clubs. Wilker has a bachelor's degree in agricultural journalism from Wisconsin at River Falls.

During his nine years in 4-H, Luebke was involved in county exchanges and federation offices. The 22-year-old also attended

Page 1 of 2

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the Citizenship-Washington Focus in Washington D.C. as a 4-H'er. Luebke recently received a B.A. in sociology from Augustana College at Sioux Falls, S.D., where he was a student leader.

During the spring, program assistants will work with 4-H volunteer leaders forums, Know America programs for extension homemakers and other adult groups and Washington Focus, a citizenship and government study designed for 4-H and other school, church or youth groups.

The National 4-H Council is a not-for-profit organization that utilizes private resources to support the 4-H program. 4-H is the youth education program of the Cooperative Extension Service. The extension service is part of the state land-grant universities and the U.S. Department of Agriculture.

# # #

CEO,1,4,Q

N4-H1353

May 8, 1986

Source: Kathy Mangum  
612/625-9721

Writer: Jack Sperbeck  
612/625-4730

## MINNESOTA CONTRACT FOR DEED SELLERS MUST FOLLOW MEDIATION LAW

Holders of a contract for deed who want to start terminating the contract must obey Minnesota's farmer-lender mediation act of the 1986 Minnesota Farm Bill.

As of March 21, 1986, the law requires that holders of a contract for deed for agricultural property with a debt of \$5,000 or more must serve a notice of mediation with the purchaser before they can terminate the contract. A copy of the notice of mediation must also be filed with the county extension service in the county the property is located in.

"Many contract for deed notices of mediation are being sent to the wrong government office," says Kathy Mangum, coordinator of Project Support for the University of Minnesota's Extension Service. "They must go, by law, to the extension service in the appropriate county.

Page 1 of 2

"A holder of a contract for deed who proceeds with termination of the contract without notifying the purchaser with a mediation notice is in violation of the law," she adds.

Once the holder or seller of a contract for deed has notified the purchaser, the purchaser has 14 days to request mandatory mediation from extension and the creditor. "But the 14 days start when the farmer receives the notice, not when the notice was sent," she adds. By law, the seller's notice of mediation must be personally delivered to the purchaser (who signs a receipt) or be sent by certified mail.

Agricultural extension agents will provide a financial analysis for parties who participate in mediation. Once a mandatory mediation request is made, other significant creditors will be notified of this mediation. Mediation forms are available from any county recorder's or county extension office.

For more information, call the Project Support Hotline at 1-800-843-4334.

# # #

CEO,BSS,AEA,1,4

NEXT1350

# news

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

May 8, 1986

Source: Claudia Parliament  
612/625-3727  
Writer: Mary Kay O'Hearn  
612/625-2741

## PHONE BUSY WITH PEOPLE WANTING TO START BUSINESSES

Ken Stone averages 10 calls a week from people wanting to start new businesses.

The extension economist at Iowa State University, Ames, Stone was at the University of Minnesota's Earle Brown Continuing Education Center recently for a small home-based business workshop. The workshop was sponsored by the University of Minnesota's Extension Service and the Small Business Development Center in cooperation with the Small Business Administration.

Stone points to "a strong correlation between doing research on a business before going into it and the likelihood of being successful in that business." He advises against being so caught up in an idea that there is the danger of "getting into euphoria and forgetting the real world."

To begin with, a person must have a unique product, needed by the community, then focus on a narrow part of the market, keeping the inventory low and building up the part of the business that "goes." There is a danger in thinking you can just sell products to your neighbors and make a go of it.

Page 1 of 4

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He suggests before starting up: find a successful person already in the business you want to start--but away from your own trading area so you are not a competitive threat--and talk your ideas over. That's just what Mark Dahlman did. He lives in Cromwell in Carlton County (west of Duluth and Cloquet) and had combined carpentry with farming, but the farming just wasn't making it, he told the workshop during a panel discussion of persons in successful home-based businesses.

In 1975 he began a carpentry business in his garage and in 1981 it became "a real business." He moved to a building and employed 12 full-time and two part-time workers, plus his wife and himself manufacturing kitchen cupboards. He went to Fargo, N.D., to talk to a counterpart before starting his business and came away with valuable information. He emphasizes the value of having a business plan (an absolute necessity for getting financing), checking the competition, the raw material resources near you for what you want to produce and the turnover time on producing.

Stone also recommends assessing the stages in a business. Be aware of "cycles and saturation. Is what you want to do at a fad stage or will the fad continue?" Are video tape stores at a peak? Video games arcades are dwindling. If you can gauge this

and sell at the peak, "you can make out like bandits," he remarks. His audience suggested this might be the "boom time" for fitness centers.

At saturation in Iowa, he says, are craft-type stores--a 600 percent increase in stores in seven years, with sales dropping 70 percent. Photo studios are another business with dramatic increases in numbers of stores--which makes average sales go down. Gift and novelty shops are other examples he mentions. There are the "bust" markets, too, the ones that have never really gotten going.

How can one avoid sad failures in a new business?

Know the size of your trade area. These are the factors that will influence it: the population, competition, size of your operation (is it in your home or another building), its location (if not on main street there won't be walk-in business) and your efforts to promote the business (advertising in a larger trade area newspaper could pull business in from farther away).

How much will people in your trade area buy? There are tools Stone uses to help people estimate that. He multiplies population, pull factor, per capita expenditures for that product and index of income to find out potential yearly sales.

Pull factors are based on the average expenditures. First, a town's potential sales are determined by multiplying the state's

average expenditure on goods and services by the town's population. A town's pull factor is then calculated by dividing the town's actual sales by the potential sales of the town's residents.

He used these tools in trying to determine how many dollars would be spent yearly on women's clothing in one community. Assuming a 3,686 population, the pull factor from the trade area would increase that population by 40 percent. Per capita expenditures for women's clothing (all ages of the population) is \$41 and the income index--meaning the income level of that area compared with the state average--is 98 percent. The equation looks like this:  $3686 \times 1.4 \times \$41 \times .98 = \$207,000$ , the potential for women's clothing sales in a year.

But it doesn't end there. One must look at what clothing stores are already there and make subjective judgments on whether the town would support another clothing store, Stone cautioned his listeners.

# # #

CEO,4,G

NCRD1346

# news

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

May 8, 1986

Source: Ann Erickson  
612/624-3205

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

## DON'T LET HOME BE 'INVADED' BY BUSINESS

If you are a "my home is my castle" person, you may have problems sharing it with a home-based business.

Ann Erickson, professor of interior design at the University of Minnesota's College of Home Economics, has some thoughts on sharing space yet keeping home life distinct from business for those who might be thinking of going into home-based businesses. She spoke at a recent workshop sponsored by the Minnesota Extension Service and the Small Business Development Center in cooperation with the Small Business Administration.

She calls control, privacy, identity and security the four environmental concerns that must be resolved in a home-based business. "You must have the upper hand in control--separating the business from the living areas of the home," she maintains. Privacy calls for some flexibility in both the business and living spaces. It might even influence what wall or window coverings are used. "You are part of the identity of the house--its planning must satisfy your needs." Security is something felt in a house, something of a nesting quality, as it

Page 1 of 4

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nurtures and protects family members, both psychologically and physically. If you are concerned about strangers, she says, perhaps you may want to take a second look at having a home-based business.

The type of business forecasts whether lots of people will be coming to the house. Is it service, such as child care or consulting or is it product oriented? Whose needs will be paramount? Will a portion of the house actually be turned over to the business? Will clients be entering the front door and the family relegated to the back door? Maintaining a professional image takes a great deal of discipline when work disruptions, such as a fight between the pet dog and cat or a child's skinned knee, demand immediate attention.

Consider the route to the business or office space, she says. Is it through other rooms? Will there be clues for customers to realize, from the flooring, for instance, when they are in office space? In some instances, such as an alteration business, the bathroom might be needed to try on clothing. Will this create a problem or is there another bathroom for family use?

"The business work area needs to leave an impression of professionalism." Frilly curtains should be abandoned for something more tailored. Accordion doors or four feet tall modular panels could create a room dividing space within a larger space. Or a business space might be developed from a back porch

off a kitchen, a loft area, a platform office or a corner of a room.

Be sure to check with the Internal Revenue Service about your home-based business. This is particularly important if this business area is part of an existing space: for example, the corner of the kitchen. This is also the time to check the safety and building codes in your community to be sure that your structural plans or the business itself is not in violation of those codes.

"The business space doesn't have to be so professional it intimidates, but it should not look like part of the rest of the house," she emphasizes. A businesslike atmosphere gives the customer an understanding of what the business is all about.

"If your business is designing or anything dependent on accuracy of color, shun fluorescent lights for incandescent. Although incandescent are more expensive, they are truer to daylight. Fluorescent lights can do strange things with color," she says.

Don't design your office space so compactly that there isn't room to open the file drawers. And there must be space to keep confidential material confidential. Use a comfortable office chair (not just one moved over from the kitchen) that supports the back and shoulders. Clients need a comfortable waiting area,

too, so don't overlook their space. Heat and air conditioning must be considered.

The most acoustical privacy (from both house and business) results from four walls, but wood and fabric are also good sound barriers, where four walls aren't an option, she concludes.

# # #

CEO,4,G

NCRD1344

# news

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

May 8, 1986

Source: Bud Crewdson  
612/625-3157

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

## RECORD KEEPING ESSENTIAL IN HOME-BASED BUSINESS

If you don't like keeping records for your business, you have some options. You can have someone else keep them, take a bookkeeping or accounting course, or read a book and teach yourself. But every business needs records.

This is Bud Crewdson's advice to anyone considering going into a home-based or other business. Crewdson is an economist, small business development, with the University of Minnesota Extension Service. He spoke at a recent conference on home-based businesses. Sponsors were the Extension Service and the Small Business Development Center in cooperation with the Small Business Administration.

"Discipline," he says will spell a large part of success in business. Records need to be simple to use, easy to understand, reliable and accurate. They must also be consistent and provide information on a timely basis. "You'll need to know what you paid last time for a product needed in your business and you will need records that you can get at in a hurry," he said.

Page 1 of 3

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"You must have separate records for business and home. If you move money from one to the other, write a check--then you will have a record."

At the minimum, sales records, cash records, cash disbursements and accounts receivable (if you are selling on credit) are the minimum records that must be kept in a business. A business plan will be essential to know how the business is doing, how it can do better and to assist in securing financing.

He terms a balance sheet "a snapshot of your business at a given date," while a profit and loss statement "shows income and expenses over a period of time." Inventory should be done more than once a year if the size of your business warrants it.

"Business can be making a profit on paper, yet go bankrupt if it is not generating enough dollars to meet expenses," he says. Lack of cash flow may be due to too much inventory, selling too much on credit or both. His suggestions include: reduce excessive inventory, control credit sales, do a better job of collecting receivables and when possible obtain supplier payment extensions ("these are tightening up, however"), rent space to a complementary business; re-finance vehicles, sell or license rights to your business to someone else. These can all help during tough financial times.

Exercise some controls now to prevent this from happening in the future. He further suggests controlling operating expenses,

which may mean cutting back on employees, a hard thing to do; or extending loan payments, not easy with banks today.

Why do businesses fail? There may be as many reasons as there are business owners, but some of the more usual include: salaries that are too high, excess overhead, poor merchandising, bad location, improper pricing (learn the formulas and choose the one that makes sense to you) and poor financial control. "All are important functions of management," he says.

# # #

CEO,4,G

NCRD1345

# news

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

May 15, 1986

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

## AGRICULTURAL TAX SHELTERS FAVOR HIGHER INCOMES

Under present laws agricultural tax shelters favor people with the highest taxable income. And it makes no difference whether the income is produced on the farm or elsewhere.

Michael Boehlje, economist with the University of Minnesota's Extension Service, explains some implications of agricultural tax shelters. "A high-income bracket taxpayer and a low-bracket taxpayer may earn the same commercial return from a tax sheltered farm investment. But the after-tax returns will be greater for the high-bracket taxpayer," he says.

"Ownership of assets slowly gravitates to those who get a greater return and can pay the most. So over time, ownership of tax shelter assets is concentrated in the hands of high-bracket taxpayers."

The tax law also provides incentives for the expansion of dairy operations, livestock farms and development of orchard crops in spite of surpluses and excess production. Investment Tax Credit combined with accelerated depreciation is widely used as a tax shelter under the present law, Boehlje says. Combining the two gives an investor in the 50 percent tax bracket who builds a 500-sow farrowing barn a federal tax break of \$7.91 for every pig sold, according to calculations by the Center for Rural Affairs, Walthill, Neb.

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Studies show that tax policy has put upward pressure on farm land. "Land provides the 'classic' tax shelter," Boehlje says. Appreciation is not taxed until the property is sold. If the land is held until death, the return is exempted. And carrying costs--interest and property taxes--are fully deductible from taxable income and may offset income from other sources. "Tax sheltering may have been a significant part of the land price run-up in the 1970s," Boehlje says.

Tax shelter aspects have encouraged growth of individual farm firms. "But again, the greatest advantage goes to the highest bracket taxpayer," Boehlje says.

Cash accounting allows farming to be a tax sheltered industry. So long as there's other income subject to tax, taxpayers in higher tax brackets have more funds for growth and expansion because of the tax shelter. There's also an incentive to combine nonsheltered taxable income--like a salary--with sheltered income since a tax shelter has little benefit without other income to shelter.

Tax shelters also lower federal tax revenues. This requires revenue increases elsewhere or contributes to government deficits.

Agricultural Experiment Station research in Minnesota has shown that tax subsidies altered the progressive nature of the rate structure. The study, by agricultural economist Vern Eidman, showed that effective tax rates were only marginally higher for larger farm firms compared to smaller farms.

# # #

# news

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

May 15, 1986

Source: Kent D. Olson  
612/625-7723  
Editor: Jack Sperbeck  
612/625-4730

## FARM PROFITS DOWN 44 PERCENT IN SOUTHWESTERN MINNESOTA

Farm profits in 1985 declined 44 percent from 1984 levels for members of the Southwest Minnesota Farm Business Management Association.

And for members of the Southeast Association, 1985 profits declined 19 percent from 1984. Both figures are from records compiled by farm management specialists with the University of Minnesota's Extension Service: Kent Olson, extension economist; and Perry Fales, Dary Talley, Erlin Weness and Lorin Westman, who are association fieldmen and area extension agents.

Included in the summary were 180 farms in the Southwest Association and 59 in the Southeast Association.

"Lower prices were a major reason for lower profits," Olson says. Average corn prices were down 53 cents a bushel in the southwest and 55 cents in the southeast. "Corn yields were up, but not enough to offset lower prices," he says. Soybean prices were down \$2.14 a bushel in southeast and \$1.74 in southwest. Soybean yields decreased from 1984 due to last year's wet fall harvest season.

Page 1 of 4

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Milk prices for dairy farmers were also down from '84 levels--67 cents per hundred in the southeast and 76 cents in the southwest.

"Many beef feeders were not buying replacements for their feedlots in 1985. These lower inventory figures mean a decrease in beef feeding for 1986," Olson says.

"There was a trend towards cropping more acres," he adds. Total acres owned and rented rose from 363 to 423 in southwest and from 264 to 288 in the southeast, compared to 1984. He attributes most of the increase to more acres rented.

Milk production increased in both associations even though prices were lower. In the southeast, farmers cut costs per cow enough to show an increase in net returns from 1984 to 1985. Returns for all dairy animals on a per cow basis went from \$211 in 1984 to \$370 in 1985. This figure includes direct and overhead costs, plus costs of raising replacements.

However, dairy farmers in the southwest had lower returns per cow since total expenses per cow were up about \$200. But in the southeast, expenses were down \$100 per cow.

Here are other results from the farm records analysis:

--In the southwest, gross cash income (before expenses) decreased 8 percent from 1984 to 1985. Total cash expenses decreased 15 percent. After adjusting for a \$15,056 decline in

inventories (without resupplying) and \$31,469 in depreciation, the average profit for the Southwest Association members was \$5,487 per farm in 1985. The 1984 average was \$9,875.

--In the southeast, gross cash income (before expenses) increased by 6 percent from 1984 to 1985. Total cash expenses increased 5 percent. After adjusting for a \$415 increase in inventories and \$30,386 in depreciation, the average profit for the Southeast Association members was \$16,709 per farm in 1985. The 1984 average was \$20,724.

--The average net worth of southwest members at the end of 1985 was \$253,588 per farm with land valued at current market value. This is 30 percent less than their net worth at the end of 1984. However, their average debt-to-asset ratio improved from 46 percent to 51 percent at the end of 1985.

--The average net worth of southeast members at the end of 1985 was \$216,766 per farm. This is a 9 percent increase from the end of 1984 with land valued on an original cost basis. Their average debt-to-asset ratio improved slightly from 49 percent to 50 percent at the end of 1985.

--The average debt forgiven in 1985 was \$155,880 per farm for those southwest members who had debts forgiven. The average value of assets repossessed in 1985 was \$153,851 per farm for those southwest members who had assets repossessed. In 1985,

13 percent of the southwest members whose records are included in the annual report had debts forgiven; 6 percent had assets repossessed. (In the Southeast Association, this data was not released due to a small number of farms affected and the potential loss of confidentiality.)

--Without government programs in 1985, farm profits would have been negative for the southwest members. In both associations, the average government payment was almost \$13,000 per farm. In 1984, government payments were \$2,239 in the Southwest Association and \$4,068 in the Southeast Association.

# # #

AEA,BSS,CEO,1,4,7

NAGR1362

# news

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

May 15, 1986

Source: Michael Boehlje  
612/625-0231

Writer: Jack Sperbeck  
612/625-4730

## TAX REFORM BILL CUTS AGRICULTURAL SHELTERS

Limiting losses for tax purposes and slower depreciation for single-purpose farm buildings would curtail two major agricultural tax shelters, says Michael Boehlje, economist with the University of Minnesota's Extension Service.

Both provisions are part of the Senate Finance Committee's tax reform bill.

Under present tax laws, accelerated depreciation (over a five-year period) gives a competitive advantage to higher income people who build livestock units or develop orchards. The Senate reform bill calls for a 10-year depreciation schedule.

"The existing tax laws provide incentives for expansion of dairy operations, livestock farms and orchards in spite of surpluses and excess production," Boehlje says.

The committee bill's limitation of losses for tax purposes means that "passive investors" could deduct no more than \$25,000 in paper losses. A passive investor plays no role in managing the investment.

Page 1 of 2

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

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"Under present laws, agricultural tax shelters favor people with the highest taxable income. It makes no difference whether the income is produced on the farm or elsewhere," Boehlje says.

Other ways the tax reform bill would affect agriculture, according to the Des Moines **Register**, include:

--Limitation of "prepaid" expenses. Farmers or farmer-investors could deduct no more than 50 percent of prepaid expenses like seed and fertilizer from current-year taxes. Current law allows full deduction. Non-farm investors, especially in livestock operations, use prepaid expenses to create paper losses and shelter income from taxation.

--Limitation of industrial development bonds for agriculture. No more than \$250,000 worth of tax-free industrial development bonds could be issued for agricultural projects. There's no dollar limitation under current law.

--Heavily indebted farmers who restructure debt with lenders would avoid paying tax on the portion of the debt that was cancelled.

--Small-issue industrial development bonds ("Aggie Bonds") could be issued until 1988. Under current law, authority to issue them expires in 1986.

--Farmers and other people not covered by company plans could deduct one-half the cost of their health insurance premiums.

# # #

# news

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

May 15, 1986

Source: Barbara Muesing  
612/625-6300  
Writer: Jack Sperbeck  
612/625-4730

## PUBLIC MEETINGS SCHEDULED ON MINNESOTA EXTENSION SERVICE

Four public meetings are scheduled to get ideas on the future mission of the University of Minnesota's Extension Service.

The meetings have been scheduled by the University's Board of Regents, which is conducting a review of the Minnesota Extension Service at the request of the Minnesota Legislature. They are scheduled as follows:

--June 18 from 1:30 p.m. to 4 p.m., Best Western, **Marshall**.

--June 18 from 7 p.m. to 9:30 p.m., Western Inn, **Owatonna**.

--June 19 from 1:30 p.m. to 4 p.m., Rainbow Inn, **Grand Rapids**.

--June 19 from 7 p.m. to 9:30 p.m., Holiday Inn, **Detroit Lakes**.

The committee has identified six issues they'd like to get ideas about: mission, program focus, structure, funding, marketing and evaluation. Examples include:

--Should there be a county extension office in every county?

--Should extension charge for programs? What about funding due to cuts in federal dollars? What's the responsibility of

counties for funding extension programs?

--Should extension programs continue along traditional lines or change?

"We'd like to invite the public and legislators, county commissioners and county extension committee members," says Barbara Muesing, secretary of the Board of Regents. Also invited are educators and social service agency people.

You can also send your ideas in writing to Barbara Muesing, Board of Regents, 220 Morrill Hall, Minneapolis, MN 55455.

# # #

AEA,BSS,CEO,1,4,7

NEXT1365

# news

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

May 15, 1986

Source: Paul Rosenblatt  
612/625-3120

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

## CONSIDER PROS AND CONS BEFORE HOME-BUSINESS PLUNGE

There are pros and cons of family home-based businesses and knowing about both before taking the plunge is all to the good.

Of 15 million U.S. businesses, 90 percent are said to be family businesses and 175 of the Fortune 500 businesses (the 500 largest in the U.S.) are either owned or controlled by a single family.

One of the big advantages of any family owned business is the independence it offers, say Paul Rosenblatt, professor of Family Social Science at the University of Minnesota's College of Home Economics. He is one of the authors of The Family in Business, published in 1985. He spoke to a recent workshop sponsored by Minnesota Extension Service and the Small Business Development Center in cooperation with the Small Business Administration.

Other advantages Rosenblatt sees in owning a business: you may do better financially working on your own, or self-employment may be the only way to earn a living where you choose to live. Additional pluses may include working at your own pace, doing it

Page 1 of 3

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your way, meeting your own standards, controlling your own time (chances are you will work more hours--70 or more a week are usual for self-employed), escaping organizational restrictions and work dress codes, seeing the results of your own labor, freeing your creativity (some organizations can stifle it) and using sides of yourself not being used.

Then, too, if your work is at home no time is spent in travel to work, you can stay home in bad weather, and small blocks of time can be used for other activities as they become available. Child care, care for an elderly or handicapped family member can be planned if work is at home.

Alma Owen, who chairs a regional project on work and the family at Lincoln University in Missouri, another speaker at the conference, says the emotional family life needs to be checked out before taking on a business that will affect all family members. Weigh needs of the family against business goals that make demands on the family (such as business use of the home, phone, cash and car). "Stress comes from the inability to manage all the things going on," she says.

Rosenblatt sampled businesses from the Yellow Pages for his book to find about family tension in a home-based business. He found 90 percent of those talked to admitted it exists. One example of tension: sometimes even when the phone is not in use,

it is tied up waiting for a business call to come through--so  
it's off bounds to family use.

Knowing the business is always there can be an advantage and  
disadvantage as the family is never really sure they are number  
one. Families running resorts and other seasonal businesses  
experience problems with too much togetherness and too much  
apartness, depending on the season. As with other home-based  
business families, sometimes they need to negotiate times to be  
together or times to be apart. "Getting away from it all once in  
a while is a necessity," he says.

# # #

CEO,4,G

NCRD1347

# news

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

MSC  
3/8/86

May 22, 1986

Source: Jim Kitts  
612/624-3298  
Writer: Mary Kay O'Hearn  
612/625-2741

## EAGLE STORY TOLD IN DIARY FORM

Did you know bald eagles are giants in the nest building business? The largest nest or aerie on record was 20 feet deep, 10 feet across, and weighed an estimated two tons, according to the diary keeper in Notes of an Eagle Watcher.

The booklet (newly reprinted) is a cooperative effort of the University of Minnesota's Extension Service, U.S. Department of the Interior and U.S. Fish and Wildlife Service. It can be obtained for \$1.50 from the Distribution Center, 3 Coffey Hall, University of Minnesota, St. Paul 55108. It is interesting both typographically and for the six pages of drawings on parchment-like paper.

Bald eagles have been the nation's symbol since 1782 and this booklet gives in diary form a land-owner's guide to protecting nesting bald eagles. It covers an area near Bemidji from March 9 through October 22, 1984. The time between egg-laying (April 5) and hatching is about 35 days and between egg-laying and learning to fly (called fledging) is about four months. "Eagles leave the

Page 1 of 3

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nest for good about four weeks after they fledge," according to the diary.

Most eagles mate for life and a breeding pair usually returns to the same nesting area year after year. They may maintain two or more nesting sites in the same area and choose between or among them annually. Females lay from one to three eggs. From about May 10 to June 10, newly hatched eaglets need near-constant attention from the adults. Eagles are very good about adapting to available food where they are, but since most nesting areas are situated near water (lake, river, stream or sea coast), fish will be 90 percent of the diet during the nesting season. Nests are usually built in very large trees, including white and red pine, aspen and elm. It's the eagles' secret that every eagle nest in the vicinity of the Chippewa National Forest contains a sprig of white pine, a biologist discovered. Humans don't know the reason.

Minnesota is one of the breeding strongholds for eagles-- found in all states but Hawaii. In 1978 bald eagles were declared a threatened species in Minnesota, Wisconsin, Michigan, Washington and Oregon, but they remain on the 1967 endangered list for all other contiguous states. Average lifespan isn't known although some have lived 40 years in captivity. Banding birds will help answer the question of longevity in the wild, according to the publication.

State and federal conservation professionals routinely monitor nesting sites and are the source of much of the written knowledge of bald eagles. They are also available to give suggestions on management of a nesting area. It's important to protect the nesting trees and establish buffer zones from human activities such as construction, logging, trail riding and hiking. At the University of Minnesota's Extension Service, Jim Kitts, wildlife and fisheries specialist, helped with this publication.

# # #

CEO,4,7

NEXT1366

# news

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

May 22, 1986

Source: Tom Scherer  
612/625-1264  
Writer: Mary Kay O'Hearn  
612/625-2741

## NEW TEMPERATURE METHOD MAY TRIGGER IRRIGATION

Taking plants' temperature with an infrared thermometer (IRT) may help farmers in the future decide when to turn on their irrigation systems. Like humans, plants need to stay well to remain alive.

Research on this method of irrigation is being conducted by the University of Minnesota's Agricultural Experiment Station and offers a more accurate prediction of plant stress and water needs.

Traditionally, the soil's water holding capacity has been the key to when to irrigate. "Since the object of irrigation is to minimize plant stress, it would seem best to use the plant itself as an indicator of water needs and the soil for how much water to apply," says Tom Scherer, research assistant in the university's Department of Agricultural Engineering. The usual rule of thumb has been: Irrigate when water is 50 percent gone. Using a more accurate irrigation scheduling method could mean saving \$500 per field revolution (of a normal-sized center pivot system) during the growing season.

Page 1 of 4

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Lack of moisture has a serious effect on crop yield. "Once the crop is stressed, perhaps because it's not raining or the rain comes at the wrong time for the plant's growth," explains Arnold Flikke, "the plant suffers a severe setback and rarely catches up." Flikke, an agricultural engineering professor, is also involved in the project. He describes stress in a plant as much like stress in a human. When water is scarce, the plant drives its roots farther down in the soil to tap moisture from a larger area. But this happens at the expense of the whole plant--just as an injury or stress to one part of the human body takes its toll on the entire body.

As water becomes scarce, the temperature of the crop rises (in contrast to the air temperature) due to lack of water for transpiration (vapor given off through the leaves). With adequate soil moisture, a soybean leaf can transpire up to twice its weight in one day.

"It's a high tech tool for basing a human decision." This is how Scherer describes the IRT, which he has built and tested on soybean plots at the University of Minnesota's Becker Sand Plains Irrigation Farm near St. Cloud. For years, infrared cameras have been used for aerial photography to seek out crop damage and the IRT is seen as another adaptation of this. The datalogger has two parts: a hand-held unit containing the IRT and

other sensors connected to a control unit. If this sounds like a computer, it is. The control unit contains the microcomputer and is carried in a backpack. The datalogger measures the temperature of the plant canopy (these are the leafy tops of the growing plant), and then compares it with the air temperature. The difference between the plant and air temperatures is a clue to plant stress and the need to irrigate. (A set of tables will be provided to explain to irrigators just how this works.) The IRT is pointed at the crop at an angle so that the soil temperature doesn't interfere with the plant temperature reading. The datalogger is called PACTDRI, which stands for Portable Air-Canopy Temperature Difference Recording Instrument.

"The IRT won't need to read every area of a field," says Scherer. For instance, an irrigator will know from past experience where the hot spots are in a field--due to variations in soil and growth rates. Ten or 20 readings from different areas of a field will give information on whether to irrigate.

And there is a "best" time of day to take the temperature readings. Usually the crop canopy with an ample supply of water is cooler than the air in early morning, but then its temperature rises relative to the air, during the day. Temperature measurements taken at solar noon (1 p.m. Central Standard Time) are most helpful for irrigation scheduling.

The temperature reading, which is supplemented with other soil-water knowledge, would be most helpful for scheduling irrigation on soybean, potato, alfalfa, corn and sunflower crops. When corn and sunflower begin reaching for the sky, readings could be made, angling the thermometer at the crop from the bed of a pickup truck when it's impossible to walk the fields to do this.

Scherer mentions that there is considerable interest worldwide in the IRT method. "The idea is to make the most of water and get maximum yields in areas where water supplies are short and expensive."

# # #

AEA,BSS,CEO,1AC,1,4,7,C,F

NEXP1361

# news

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

M56  
5/22/86

May 22, 1986

Source: Edward R. Blonz  
612/624-7288

Writer: Deedee Nagy  
612/625-0288

## UNIVERSITY NUTRITIONIST SCEPTICAL OF ROTATION DIET PROMISES

A diet that promises up to a pound a day of weight loss, no weight regain and is coupled with media and supermarket promotion is bound to be a bestseller. What concerns Edward Blonz, nutritionist with the University of Minnesota's Extension Service, however, is how well the diet will deliver on its promises.

Blonz says claims for the "Rotation Diet," which is outlined in pamphlets being distributed by Super Valu food stores, are probably unrealistic for most people.

"It is unclear how the stated weight loss can be achieved given the program outlined," Blonz says. "A three week rotation between 600, 900 and 1200 calorie diets is potentially useful to avoid diet boredom and to help maintain the rate at which one uses dietary energy. Of course, it isn't advised that anyone remain at intakes below 1,200 calories daily without first checking with a health professional."

He credits the diet with several interesting features. "The classification of certain high fiber/low calorie vegetables as

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'free vegetables' -- foods that can be consumed at will -- is clever. But it would appear that for the average individual, the loss of excess body fat will fall far short of the diet's projections."

Blonz adds, "I like the inclusion of exercise in the program. It should be an integral part of any reduction program because it helps maintain a higher rate of weight loss."

Supermarket handouts on the diet state that important information for health professionals, along with the research findings on which the Rotation Diet is based, will be supplied to the nutrition division of every state's public health department.

After studying these documents, however, Blonz states, "It's curious that the study cited in these papers reports an average weight loss of 10.8 pounds over a four-week test period. There was no research evidence of a pound a day, or even a two-thirds of a pound a day loss as is promoted in the pamphlets available to consumers."

He concludes, "I have no problem with any diet that interests individuals in their diets and the means by which they can get rid of body fat, especially if it accomplishes this through the use of normally available food as opposed to meal substitutes. But if a diet is to be successful, individuals must understand the difficulties involved and not be swayed by unrealistic promises."

# # #

June 5, 1986

Source: Mary Darling  
612/624-6286  
Writer: Deedee Nagy  
612/625-0288

## GARBAGE TELLS TALES: WE'RE TRIMMING MORE FAT OFF MEAT

What could a snoop discover about your family's eating habits by sorting through your garbage?

Unsavory job or not, University of Arizona archaeology students sift through Tucson's garbage, weighing and quantifying what they find. In the 12 years since the Tucson Garbage Project began, researchers have noted trends in eating habits, including two seemingly contradictory ones--we're trimming more fat off meat, yet we're eating more fatty meat like regular ground beef, weiners, lunch meat and bacon.

Mary Darling, nutritionist with the University of Minnesota's Extension Service, thinks there's some irony in these two meat-eating habits. As recently as 1979, the percentage of meat fat that we discarded ran between 3 and 10 percent of total fat. By 1985, this had jumped to between 12 and 16 percent.

"This indicates that people are heeding some of the advice on reducing fat intake from the National Academy of Science and the American Heart Association," Darling notes. "But at the same time, our interest in convenience and, possibly, cost per serving is speeding sales of meat with nonseparable fat."

Page 1 of 2

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She adds, "Convenience is a factor for many people. But what they may not realize is how high the levels of fat are in regular ground beef, hot dogs or lunch meats. Bologna, for example, can be one-fourth fat while the lean portion of a trimmed sirloin steak may be only 10 percent fat. Ounce for ounce, currently, we're eating about equal quantities of meat with separable fat and meat with the nonseparable kind."

Darling says concerns about cost per serving may also add to the popularity of lunch meats, sausage and ground beef. Eight ounces of bologna, for example, might yield four sandwiches while an 8-ounce steak might be a meal for only one person.

Overall, the study indicates that people discard about 15 percent of the food they purchase. Darling says this waste may arise from our plentiful and relatively inexpensive food supply. Also, people may not always know if food that has been stored for some time is still safe to eat. They may toss food that is still edible.

Food waste also increases with "crisis buying" during food shortages. Darling reports that during the "beef shortage" in 1973, consumers bought cheaper cuts of beef and in larger quantities than normal. As a result, meat waste in Tucson tripled, possibly because people did not know how to prepare these cuts or because they overbought and did not store the meat properly.

# # #

# news

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

June 5, 1986

Source: Tom Stinson  
612/625-1217

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

## FARM CRISIS REACHES RURAL GOVERNMENTS

Can rural local governments expect to stay financially healthy despite the declines in farmland and small business values?

Tom Stinson says the farm crisis has "a third dimension--a local government dimension" in his report, "Governing the Heartland: Can Rural Communities Survive the Farm Crisis?" Stinson, a professor of Agricultural and Applied Economics at the University of Minnesota, prepared the report at the request of the U.S. Senate Subcommittee on Intergovernmental Relations.

"Rural local governments have two choices: increasing taxes or cutting services," says Stinson. His study of selected counties in Minnesota, Arkansas, Iowa, Kansas, Missouri, Montana, Nebraska and North Dakota finds the average drop in local government spending per resident would be \$106 without tax increases. If more pessimistic assumptions about the future are used, spending could drop by \$250 per person.

Page 1 of 3

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He points out that is little chance of additional financial help to local governments from the federal government. Between 1980 and 1985, federal cutbacks in aid to state and local governments totaled 23 percent in real dollars. Nor is additional assistance from state governments likely. Six of the eight states were forced to make mid-year reductions in their fiscal 1986 budgets. That's considered an extreme step and only Kansas and Missouri escaped it, Stinson says.

At a time when the economy is lagging and the population aging, more services may be necessary. A regional mental health center in southwest Minnesota reports use of outpatient services increased more than 300 percent and substance and family abuse consultations, 67 percent. Despite declining population in northern Iowa, overall social services demands were found to have increased 30 percent, according to the study.

Schools may be in trouble, too, if the tax base continues to erode. Of the states studied, Minnesota had the largest percentage of the local property tax base classified as agricultural land. State governments will ease some of the load, however, through their school aid programs. In 1986, for example, Minnesota school districts are guaranteed roughly \$1,700 per pupil if they levy a 23.5-mill property tax. The state makes up the difference between the revenue raised through that levy and the guarantee. If a district's assessed valuation is \$50,000

per pupil, the foundation levy produces \$1,175 per pupil and the state contributes \$525 to make up the difference. If local assessed values were to drop by 50 percent to \$25,000 per pupil, the state contribution would automatically increase to \$1,112.50 per pupil.

Nationwide, farmland values fell by \$146 billion between 1982 and 1985, a loss of wealth for farmland owners equal to the combined assets of these 11 business giants: IBM, GE, Kodak, Proctor & Gamble, 3M, Dow Chemical, McDonald's, RCA, Upjohn, Weyerhaeuser and CBS. Minnesota farmland values fell by \$20 billion during that period, slightly less than one-seventh of the national total.

The farm crisis has produced one of the most severe regional economic recessions since the 1930s. If left unchecked, Stinson says, it has the potential to seriously--and in some instances permanently--undermine the fiscal foundation of many rural communities. His study calls for action before the situation worsens, to ease the transition to a more stable agricultural economy and to help rural local governments avoid becoming another victim of the farm crisis.

# # #

CEO,1,4

NAGR1387

# news

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

MSC  
9/17/86

June 5, 1986

Source: Arley Waldo  
612/625-2744  
Writer: Mary Kay O'Hearn  
612/625-2741

## PUBLICATION DESCRIBES HOW FARMLAND IS TAXED

Do owners of farmland understand how their tax bill is calculated?

"Most probably don't," says Arley D. Waldo. "Minnesota's property tax system is not easy to figure out." Waldo describes the process with examples in his 15-page publication, "How Farm Real Estate Taxes Are Calculated In Minnesota." Waldo is an economist with the University of Minnesota's Extension Service and a professor in the Department of Agricultural and Applied Economics.

"Different classes of property are assessed at different percentages of market value, and state-paid property tax credits reduce the tax liability of some property owners," Waldo says. The examples he gives are based on taxes levied in 1985 and payable in 1986.

Most personal property (such as household furnishings, farm machinery and livestock) are not taxed, so Minnesota's property tax falls primarily on real property--land and buildings.

Property taxes make up nearly all of the tax revenue of local

Page 1 of 3

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governmental units. There is no state property tax.

"Accurate appraisal and classification of property is essential to good property tax administration," Waldo notes. This is the responsibility of the property tax assessor. Assessors in Minnesota are appointed, not elected, officials and must meet state certification requirements. "Remember that property tax levies are set by the governing bodies of local governments, not by the assessor," Waldo says.

What's considered a farm for tax purposes? Waldo says it's usually 10 or more acres used principally for agricultural purposes. But smaller parcels may be treated as farmland if use is not primarily residential. The assessor decides. Farmland then receives either a homestead or a nonhomestead designation. If the principal residence of the owner is on the farm, that's a homestead. But if the farm is leased to a tenant by an absentee owner, it's nonhomestead. Homestead property received a credit against taxes payable in 1986 of 54 percent of the tax up to a maximum of \$700.

All farm real estate, both homestead and nonhomestead, is eligible for a state-paid school agricultural credit. "It is calculated as a percentage of the gross tax and is paid by the state directly to local school districts," Waldo says. In 1986, the Minnesota Department of Revenue estimates that the school

agricultural credit will reduce taxes on farmland by \$126 million.

The tax assessor's job is to estimate the current market value of all taxable property as closely as possible. One measure of this is actual sales prices. The Minnesota Department of Revenue regularly conducts studies comparing assessors' estimated market value with actual sales prices. Estimated market value multiplied by an assessment ratio (percentages established by state law) equals the assessed value. Assessment ratios vary for different classes of property.

The law instructs assessors in valuing farmland "to consider and give recognition to its earning potential as measured by its free market rental rate." Estimating market value becomes a difficult job when real estate prices shift dramatically. From the mid-1970s to 1981, farmland value per acre increased about 250 percent, while today's values are probably less than half the 1981 levels.

Copies of Waldo's publication are available from Waite Library, Department of Agricultural and Applied Economics, University of Minnesota, St. Paul, MN 55108.

# # #

AEA,CEO,1,4

NAGR1386

June 5, 1986

Source: Kathy Dalgaard  
612/624-6202  
Writer: Jack Sperbeck  
612/625-4730

## MINNESOTA EXTENSION SERVICE RECEIVES AWARDS FOR PROJECT SUPPORT

The University of Minnesota's Extension Service has been recognized for its Project Support programs geared to help rural families deal with financial and stress problems.

The awards were presented by the Minnesota Association for Continuing and Adult Education at an awards dinner May 29 on the university's St. Paul campus. Recognized were:

--A "Youth in Distress" series of conferences and projects done in cooperation with the university's Medical School and local organizing committees. Five regional conferences dealing with teen suicides were attended by over 1,300 youth professionals and adults who work with youth. Conference participants estimated they shared the information received with over 10,000 others.

Program development specialist Joanne Parsons was the coordinator. Nancy Frosaker, acting district program leader in northwestern Minnesota, and Sharon Query, 4-H youth specialist in Clay County, were recognized for their efforts in northwestern

Page 1 of 2

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Minnesota on behalf of the "Youth in Distress" program.

--The Center for Farm Financial Management for its FINPACK computer software programs to educate farm managers and lending institutions. "FINPACK addresses individual farm families instead of dealing in generalities," said Minnesota Extension Service Director Patrick J. Borich. More than 10,000 farm families have found help through FINPACK and its mainframe predecessors. The program is headed by farm management specialist Richard O. Hawkins and has been used in 25 other states.

--The Carver County extension office for its outstanding Project Support program to help adults and youth deal with financial and stress problems. The county staff of Vern Oraskovich, Jeanne Markell and Laurel Swanson worked as a team to help farmers, their families and youth.

--Rose Allen, Ramsey County extension agent, for her work as project coordinator for Project Survive, a television series produced in cooperation with KTCA-TV in St. Paul.

# # #

AEA,BSS,CEO,1,4

NEXT1379

June 5, 1986

Source: Deborah L. Brown  
612/624-7491  
Editor: Anne G. Lewis  
612/625-6797

## CONSIDER EFFECT OF COLORS WHEN PLANNING YOUR GARDEN

Consider what different colors will do for your garden and plant flowers that will provide the effect you want, advises horticulturist Deborah L. Brown.

Brown, who is with the University of Minnesota's Extension Service, says, "Some colors sizzle in the sun, adding visual heat to the surroundings. Fiery red geraniums, orange tithonia, hot pink phlox or petunias and vivid purple salvia grab your attention. They are so boldly colored, they create an impact that's hard to ignore."

What if you want colors that are cool and quiet?

Brown replies, "Pastel shades of pink, salmon and lavender impatiens are delicate yet colorful. Combinations of soft blue ageratum, silvery dusty miller plus anything white--daisies, babysbreath, astilbe or sweet alyssum--lend a serene, understated feeling to the garden."

White flowers can also be used to separate jarring colors. And, you can even plan an all-white garden, using ivory, white and cream-colored blossoms for an elegant, sophisticated look.

"Have fun with flower colors," Brown suggests. "By planting different annuals each year, you can try an endless number of combinations."

4,7,I

# # #  
Page 1 of 1

NAGR1389

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

# news

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

June 5, 1986

Source: Deborah L. Brown  
612/624-7491  
Editor: Anne G. Lewis  
612/625-6797

## STAKE FLOWERS, VEGETABLES AS EARLY AS POSSIBLE

Some tall flowers, such as delphiniums and dahlias, need staking to support them and to protect them from being bent and broken by the wind, says horticulturist Deborah L. Brown. Brown, who is with the University of Minnesota's Extension Service, says many people also choose to stake tomatoes rather than grow them in wire cages or let them sprawl all over.

"Stakes should be driven into the ground at planting time whenever possible," Brown says. "The longer you wait, the more likely you will injure the plant's root system when you finally pound the stake in."

# # #

4,7,I

NAGR1388

Page 1 of 1

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

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# news

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

June 5, 1986

Source: Sherri Johnson  
612/624-1708  
Writer: Deedee Nagy  
612/625-0288

## AIR POLLUTION, SUNLIGHT, HUMIDITY ARE OUT TO GET HOME FURNISHINGS

Pollutants in the air and humidity and sunlight can affect more than just our health and cheerfulness. According to Sherri Johnson, textiles and clothing specialist with the University of Minnesota's Extension Service, environmental conditions may be home furnishings' biggest enemy.

She adds that the yearly cost of fading and deterioration damage to textiles caused by pollution is estimated to be more than \$2 billion. Among the villains are airborne soils, oxides of sulfur and nitrogen, sunlight, humidity and temperature.

"There's a limit to the control that you have over the environmental conditions to which your home furnishings are exposed," Johnson admits. "You may not be able to do much about the dirt or oxides in the air in your home or even about the temperatures and humidity, but you can keep these potential problems in mind when you're selecting fabrics for your home."

She notes, for example, that fabric exposed to a dirty environment will need frequent cleaning. The abrasion, heat and detergents used for such cleanings will affect fibers and fabric colors differently. Oxides of sulfur and nitrogen are usually

Page 1 of 2

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the by-products of the burning of coal, fuel oil or natural gas, so most Minnesota homes contain some of these pollutants. Oxides of sulfur from coal or fuel oil join with moisture to weaken fibers, particularly those of cellulose or nylon. However, polyester, modacrylic and olefins resist such damage.

Nitrogen dioxide from natural gas use in the home can cause white fabrics to yellow. Blue, green and violet dyes are vulnerable to "fume fading," particularly on cotton, rayon, acetate and nylon. Acrylic and modacrylic fabrics hold up best when nitrogen oxides are present.

Ozone, a component of smog and automobile emissions, fades permanent press polyester-cotton blends and nylon carpeting.

Even sunlight, which we normally welcome in our homes, can fade and diminish fiber strength, according to Johnson. Cotton, silk, acetate, rayon and nylon are the most sensitive while acrylic and polyester resist sunlight damage. Light and medium intensity colors also show less sun fading than do dark colors.

Humidity can combine with other air pollutants to hasten or complicate damage being done to textiles. It can also cause mildew. Cellulose fibers (cotton, linen and rayon) and protein fibers (wool and silk) are most susceptible to mildew damage. Synthetics may discolor but are less likely to deteriorate.

Johnson adds, "Even the least expensive carpeting, window treatments and upholstery represent a considerable investment in our homes. Consumers can save both money and frustration by selecting home furnishing fabrics that are as resistant as possible to conditions in their homes."

# news

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

June 5, 1986

Source: Patrick Borich  
612/624-2703  
Writer: Deedee Nagy  
612/625-0288

## U OF M EXTENSION HOME ECONOMICS PROGRAM LEADER TO RETIRE

Irene Ott, program leader in Home Economics-Family Living with the University of Minnesota's Extension Service, will retire June 15 after nearly six years in her current position with the Minnesota staff and more than 30 years in extension work here and in Michigan.

During her years here, Ott has been an energetic and creative administrator, according to Patrick Borich, director of the Minnesota Extension Service. He adds, "We're going to miss her expertise, her dedication and, not least, her sense of humor. I wish her all the best in this new phase of her career."

Before coming to Minnesota, Ott was regional supervisor with the Cooperative Extension Service at Michigan State University, and, prior to that, a family living program leader in Michigan.

A colleague of Ott's in both states was Norman Brown, currently program officer with the W. K. Kellogg Foundation and former director of the Minnesota Extension Service. He says of Ott, "She is one of the most dedicated extension professionals with whom I've had the privilege of working. Her sincere

Page 1 of 2

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commitment to the Land Grant mission and her outstanding ability to organize extension programs were two of her many strengths."

Ott is a native of Albert Lea. She received bachelor's and master's degrees in home economics from the University of Minnesota. She served as county extension home economist in Martin County and later in McLeod County from 1954 to 1967.

From 1967 to 1968, she was an instructor at the University of Minnesota, Duluth. She left Duluth the following year to assume the job of extension home economist in Genessee County, Michigan.

Ott has been a member of several honorary and professional groups including the American Home Economics Association and the Minnesota Home Economics Association. She has served on the board of directors of the University of Minnesota College of Home Economics Alumnae Society and the Alumnae Association of Beta of Clovia, a home economics society. In addition, Ott has served on the Governor's Committee on Volunteers for Minnesota.

# # #

AEA,CEO,IAC,1,4,6

NHEC1384

# news

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

June 10, 1986

Source: Vernon W. Ruttan  
612/625-4701  
Writer: Sam Brungardt  
612/625-6797

## U OF M AG ECONOMIST RUTTAN RECEIVES USDA'S HIGHEST AWARD

University of Minnesota agricultural economist Vernon W. Ruttan has been awarded the U.S. Department of Agriculture's top honor, the Distinguished Service Award. Ruttan, recipient of the 1984 Alexander von Humboldt Award for Contribution to American Agriculture, received the USDA award for "outstanding contributions to American agriculture, sustained intellectual achievements, and leadership in the university, the scientific profession, and internationally."

Ruttan has been at the University of Minnesota since 1965, except for five years as president of the Agricultural Development Council. At the university, he headed the Department of Agricultural and Applied Economics from 1965 to 1970 and led its transformation into a progressive department with a much broader problem and subject matter focus. From 1970 to 1973, he headed the university's Economic Development Center.

As a scientist with the university's Agricultural Experiment Station, Ruttan pioneered in the evaluation of the impact of agricultural research. This led to research in the economics of

Page 1 of 2

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technical change, his development of the theory of induced innovation, and his current interests in the economics of institutional change.

Ruttan has authored award-winning papers on the impact of urban-industrial development on agriculture; the contribution of technology to agriculture; the economic demand for irrigated land; agricultural policy in an affluent society; factor prices and technical change in agricultural development; and induced innovation related to technology, institutions and development.

Ruttan has demonstrated his ability to be an intellectual leader and innovator throughout his career. He shifted the Agricultural Development Council's emphasis toward research and research support, which enabled it to begin to address the agricultural development problems of South and Southeast Asia. At Purdue University, he developed a research and teaching thrust in the emerging field of resource economics. His research for the Tennessee Valley Authority broke ground in regional analysis and the conceptualization of the rural poverty problem. And, at the International Rice Research Institute, he introduced economics into the emerging system of international agricultural research centers and innovated in his collaboration with biological and physical scientists.

# # #

BSS,1,4

NEXP1420

MSC  
GAZ/p

June 12, 1986

Source: Jeffrey D. Hahn  
612/624-4977  
Editor: Anne G. Lewis  
612/625-6797

## U OF M ENTOMOLOGIST SUGGESTS ALTERNATIVE CONTROLS FOR BEES, WASPS

The University of Minnesota has recommended carbaryl (Sevin) and dichlorvos (Vapona) for controlling bee and wasp problems. However, the public has raised questions about the availability of these chemicals and their use, says entomologist Jeffrey Hahn, who is with the University of Minnesota's Extension Service.

"Sevin is an effective chemical in bee and wasp control." Hahn says. "However, the formulations available to the public do not include specific directions for its use in and around buildings. We feel that this is confusing and for this reason we are substituting alternative insecticides. Sevin is still suggested for ground-nesting bees and wasps.

"Vapona is no longer carried by stores so we are no longer suggesting it," says Hahn. He suggests spraying outdoor nests that can be seen with an aerosol spray of either 0.5% Baygon (often found as 2-(1-methylethoxy)phenyl methycarbamate on the label) or 0.5% resmethrin. Propoxur dust, although it may be difficult to find, can be applied to the entrance of nests in wall voids or other places where a nest is hidden.

"It is possible that you may wish to contact a professional pest control company for difficult bee or wasp problems," Hahn concludes.

# # #

4,7

Page 1 of 1

NAGR1414

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June 12, 1986

Source: Jeffrey D. Hahn  
612/624-4977  
Editor: Anne G. Lewis  
612/625-6797

## ASH PLANT BUGS ARE LITTLE CAUSE FOR ALARM

Although several insects feed on the foliage of ash trees, none of these insects, including the ash plant bug, do significant damage, says Jeffrey D. Hahn, an entomologist with the University of Minnesota's Extension Service.

"The ash plant bug, which can be found throughout the summer, is a small, brown and yellow insect," says Hahn. "The insect, when it is seen, is found on the underside of the leaf. However, the damage this insect causes is usually noticed first. It appears as whitish or yellowish mottling on the top of the leaf. Black specks, produced as the insect feeds, can also be found on the leaf bottom.

"Damage from ash plant bug does not usually cause leaf drop," Hahn adds. "Control is not necessary if you are only concerned about the tree's health. However, if you are concerned about its appearance, then carbaryl (Sevin) or diazinon can be sprayed when the insects are first noticed."

# # #

4,7,I

Page 1 of 1

NAGR1413

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June 19, 1986

Source: Sherri Johnson  
612/624-1708  
Writer: Deedee Nagy  
612/625-0288

## SILK IS A LUXURY WORTH PROTECTING

Silk has represented luxury and elegance for centuries. The lustrous fabric is enjoying a rebirth in popularity and, with that, has come some consumer confusion about its care, according to Sherri Johnson, textile and clothing specialist with the University of Minnesota's Extension Service.

Johnson says that silk can be weakened or yellowed by high iron temperatures, alkaline substances such as perspiration and detergents, and chloride salts in some deodorants and antiperspirants. Silk fibers are easily broken when wet so hand washing should be done carefully.

Dry cleaning is the safest way to care for silk, Johnson adds. If a garment says "hand wash," she cautions to use a mild detergent and not to rub the silk when wet. Iron at a low "silk" setting.

Any spills on a silk garment should be blotted away rather than rubbed clean. Spills of beverages containing sugar may be invisible when dry but will yellow later when exposed to heat. Such stains should be pointed out to the drycleaner.

Page 1 of 2

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Have perspiration stains removed as soon as possible. Johnson recommends using underarm shields to protect the garment if heavy perspiration is a problem. Perfumes, facial soaps and even toothpaste can cause color loss if left on the fabric too long. Remove such stains quickly, she advises.

"Silk is beautiful, and with proper care it can retain that beauty and elegance," Johnson concludes. "A few precautions in wearing and cleaning a silk garment can preserve its beauty for years."

# # #

CEO,7,G

NHEC1430

June 19, 1986

Source: Lee Hardman  
612/625-8700

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

## REPLANTING CORN HAS TRADEOFFS

If replanting corn might be necessary because of severe damage from black cutworms or other growing problems, there are some tradeoffs to consider before following up with a short-season hybrid.

Lee Hardman, agronomist with the University of Minnesota's Extension Service, says a grower must consider additional drying costs and the possibility of lower quality corn because of fall frost in addition to the replanting costs (tillage, labor, seed, herbicide).

When stands are reduced from predator (birds or rodents) feeding, mechanical damage or weather abnormalities (hail, frost, sandblasting), Minnesota growers must decide whether replanting (not much later than July 1) is economical, says Hardman.

If hail has caused the damage, some important factors to consider before replanting are plant population, leaf loss, weed control and calendar date. If the growing point is not damaged, growing corn will usually recover and perform better than replanted corn.

Page 1 of 2

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Hardman says the growing point may be inspected by splitting a stalk down the center with a knife. A normal growing point will be white and feel firm. If bacteria are already causing decay, the growing point will be discolored and soft and the plant will die. Field inspection soon after hail damage will not determine the proportion of plants which may die, the damage will be obvious within three or four days.

Growers can get more information and publications on this subject from any of the University of Minnesota's county extension offices.

# # #

1,4

NAGR1434

June 19, 1986

Source: Jeffrey D. Hahn  
612/624-4977  
Editor: Anne G. Lewis  
612/625-6797

## WHAT'S HIDING BENEATH THOSE BUBBLES ON YOUR STRAWBERRY PLANTS?

What causes the frothy masses that you might find this summer on the strawberry plants in your garden?

Entomologist Jeffrey Hahn, who is with the University of Minnesota's Extension Service, says, "If you find a frothy mass on the plant, this is not a disease but the spittle from an insect called the spittle bug. If you were to remove the spittle, you would find a small, green insect. The immature spittle bug creates this froth to protect itself from the weather and predators. It also will protect it from insecticides. Spittle bugs actually attack many different plants but few that are of any importance."

If you do find spittle bugs on your strawberries in small or moderate numbers, use a water hose to dislodge the insects, Hahn suggests. If you find very many spittle bugs, spray the plants with an insecticide such as diazinon or carbaryl (Sevin) after the froth has been hosed off.

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4,7,I

NAGR1412

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June 19, 1986

Source: Patrick J. Borich  
612/624-2703  
Writer: Mary Kay O'Hearn  
612/625-2741

## U OF M EXTENSION AGENT DUTIES SHIFT TO HELP IN FARM CRISIS

Twelve county agents and one state staff member of the University of Minnesota's Extension Service will begin one-year assignments as area agents July 1. The new agents will augment state legislative efforts through Extension during the current farm crisis.

In announcing the appointments, Patrick J. Borich, Minnesota extension director, said the one-year area agents, who are all veteran extension workers, will assist farm families with budgeting and resource management and will work with existing and potential new small businesses on business and economic development. While most of the agents will continue to live in their home counties, their office locations will change.

Borich assures, "There will be temporary replacements for each of the persons who applied for and were appointed to these temporary area agent positions and are being shifted from the counties."

Funding for the area agents and their temporary replacements in the counties is possible through the \$1.25 million allocated to extension by the 1986 session of legislature, Borich says.

These are the 12 temporary area agents, with the county and their years in extension following each name: Marian Anderson, Big Stone County (18); Nancy Charlson, Winona (6); John Cunningham, Big Stone (18); John Eix, Hubbard (31); Gary Hachfeld, Nicollet (15); Martha Harder, Cass (6); Catherine Huebner, Stevens (10); Ken Olson, Morrison (12); Blake Peterson, Blue Earth (19); James Rabehl, Crow Wing (25); Dorothy Rosemeier, Swift (8); Joan Sprain, Washington (6). Barbara Koth has a one-year appointment concentrating on tourism and will have an office on the University of Minnesota's St. Paul campus. She joined extension in March 1985.

# # #

AEA,CEO,1,4,5

NEXT1428

# news

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

June 19, 1986

Source: Sherri Johnson  
612/624-1708

Writer: Deedee Nagy  
612/625-0288

## PROPER CARE CAN PROLONG LIFE OF DRAPERIES

The draperies in your home represent a considerable investment. Sherri Johnson, textile and clothing specialist with the University of Minnesota's Extension Service, says the length of service you can expect from draperies will be determined partially by where they hang in your home and how well you care for them.

Even with the best care, however, draperies won't last forever. Johnson says the average life expectancy is four years for unlined draperies and five years for lined ones.

When buying draperies, Johnson suggests looking for preshrunk, colorfast fabric. Inquire also about the fabric's resistance to fading from sunlight. Acetate, nylon, cotton and linen are vulnerable to deterioration from sunlight. Acrylic, polyester and glass fibers are most resistant. Sheer fabrics deteriorate faster than heavy, tightly woven ones.

Be sure to obtain care instructions when you purchase draperies, Johnson advises. Plan to clean draperies at least once a year to remove the soils that weaken and stain fabrics.

Page 1 of 2

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Protect draperies from moisture such as rain through a window or condensation on window panes.

Sometimes problems become apparent after draperies are drycleaned. These can include shrinkage, color failure, water marks, streaks and stiffening. In some cases, these can be corrected by refinishing, stretching or other procedures. Others, such as light damage, may be irreversible, Johnson adds.

She recommends working closely with both a drapery retailer and a drycleaner to get the most satisfaction and years of service possible from draperies.

# # #

CEO,7,G

NHEC1431

June 26, 1986

Source: Mary Darling  
612/624-6286  
Writer: Deedee Nagy  
612/625-0288

## FROZEN DINNERS ARE HANDY, BUT AT WHAT PRICE?

The old TV dinner has gone upscale. New frozen dinners, often with gourmet or low calorie appeal, accounted for \$3.3 billion in supermarket sales in 1984 and that figure is growing fast.

Mary Darling, nutritionist with the University of Minnesota's Extension Service, says many of these gourmet-type frozen entrees carry a premium price along with their luxury image. A recent study by the U.S. Department of Agriculture looked at the cost and preparation time for eight such frozen dinners. The researchers then compared these dinners to similar products prepared from home recipes.

In general, Darling reports, they found that the frozen products were three to four times as costly as the same quantity of food prepared from a recipe. Even when preparation time was added in at several hourly rates, the researchers found that home prepared equivalents for most of the meals were still about two-thirds the cost of their frozen counterparts.

Page 1 of 2

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Darling suggests that consumers buying frozen dinners or entrees should use nutrition labels in their shopping. Look for products that contain fewer grams of fat and fewer milligrams of sodium, she advises. Also, try to balance meals through the day. If a frozen dinner is low in some nutrient or high in fat or sodium, compensate by choosing the other foods carefully that will be eaten that day.

She adds that frozen dinners and entrees often represent a trade-off between time available for food preparation, money available for food purchase and eating quality.

For some consumers, these products may be a practical alternative to preparing foods from scratch. This may be particularly true if time, equipment or cooking skills are limited. For others on a tight budget, however, home food preparation may be the wisest investment in time, Darling concludes.

# # #

CEO,H,4

NHEC1432

June 26, 1986

Source: Jeffrey D. Hahn  
612/624-4977  
Editor: Sam Brungardt  
612/625-6797

## NOW'S PEAK SEASON FOR LYME DISEASE

This is the middle of the peak season for Lyme disease. Although Lyme disease has been reported as early as April and as late as November, most cases occur in Minnesota during June and July.

Infected deer ticks transmit Lyme disease to humans. Jeffrey Hahn, an entomologist with the University of Minnesota's Extension Service, says the deer tick is small with a brownish body and black legs. It is found in tall grass and underbrush and can be easily picked up by campers and hunters.

A red skin lesion is the first symptom that develops when a person is bitten by a Lyme disease-carrying tick. The lesion expands to form a bright red ring with a clear center which is often hot to touch. Other symptoms at the onset may include malaise, fatigue, chills, fever, headache, muscle pain, sore throat, nausea or vomiting. Several days to a month later, arthritis can develop, with cardiac abnormalities and other maladies possibly occurring as well.

Page 1 of 2

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"See a doctor immediately if you believe that you have been bitten by a tick carrying Lyme disease," Hahn advises. "Save the tick that bit you so it can be identified by an expert. Correct identification of the tick is very important for a proper diagnosis of Lyme disease."

# # #

4,7,R

NAGR1439

June 26, 1986

Source: Jeffrey D. Hahn  
612/624-4977  
Editor: Sam Brungardt  
612/625-6797

## IT'S JULY AND APPLE MAGGOT SEASON AGAIN

It's apple maggot season and time to deal with this perennial pest, says Jeffrey D. Hahn, entomologist with the University of Minnesota's Extension Service.

Hahn says that this year's apple maggots have lived in the ground as pupae since last fall. However, starting about July 1, apple maggots begin emerging from the soil as adult flies. These small flies are black and white and resemble house flies. They emerge throughout the summer and lay eggs in apples soon after they emerge.

"Once the maggots hatch from these eggs, they feed and tunnel into the flesh of the fruit," Hahn says. "These tunnels turn brown and might eventually rot. Maggot-infested apples show small, pock-like marks where the eggs were deposited and sunken, discolored areas where the maggots have tunneled."

The maggots remain in apples for three to four weeks, according to Hahn. Infested apples must drop from the tree for the apple maggot to complete its life cycle by burrowing into the ground and turning into a pupa.

Page 1 of 2

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Disposing of fallen apples as soon as possible after they've dropped will disrupt this pest's life cycle and help to minimize the number of maggots that will be seen next year. However, this will be a futile exercise if infested apples are left on the ground under neighboring trees because the adults can fly.

Hahn says, "Sprays can be applied, starting July 1, to battle the adults that will be out. One approach would be to spray two days after every rain of 1/2 inch or more. The adults are more likely to emerge from ground that is wet. However, this will not get all the flies because some may emerge between rains or even if the ground is watered. If you prefer to take fewer chances, you can spray your apple trees once every 7 to 10 days. Treatments can be applied up to 7 days before the apples are harvested. Carbaryl (Sevin) is an insecticide that is effective against apple maggots."

# # #

4,7,I

NAGR1438

June 26, 1986

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

## MULCH TO IMPROVE YOUR GARDEN

Now's the time to mulch gardens, whether vegetable, flower or a combination of the two, says Deborah Brown, horticulturist with the University of Minnesota's Extension Service.

Brown says 2 to 4 inches of grass clipping, straw or pine needle mulch improves gardens several ways. It reduces surface moisture evaporation, trapping more water in the soil for plants to use, and allows gardeners to wait a little longer between waterings.

"Mulch also reduces growth of weed seeds by denying them light," Brown says. "If weeds do sprout, they can be pulled out more easily because the soil underneath mulch is looser and softer than soil that is constantly pounded by rainfall or bombarded by water from an overhead sprinkler."

Mulch also helps regulate the soil temperature. Plants just don't grow as well in soil that's too warm, Brown says.

Finally, organic mulch can be turned under at the end of the growing season to improve the soil for next year's growth.

# # #

4,7,1

Page 1 of 1

NAGR1435

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

June 26, 1986

Source: Sherri Johnson  
612/624-1708  
Writer: Deedee Nagy  
612/625-0288

## KEEPING GOWN FOR FUTURE BRIDES BEGINS WITH PURCHASE

Bridal gowns represent a big investment and one that many brides would like to preserve for future generations. Sherri Johnson, textile and clothing specialist with the University of Minnesota's Extension Service, says careful inspection and questioning at the time of purchase are first steps toward preserving a gown.

She cautions that beads, sequins and lace sometimes won't stand up to drycleaning solvents. Ready-made garments should have a permanently attached care label, but brides wearing custom-made gowns should obtain instructions on care and cleaning.

A gown should be cleaned within a few days after a wedding. Stains and soil tend to set with age and become more difficult to remove.

Some drycleaners offer special protective packaging for bridal gowns. This service usually includes padding the gown with tissue paper and packing it in a storage box. Acid-free tissue paper is used sometimes, Johnson says. Protection from acidity is important in preserving a gown. If a storage box

isn't acid free, tissue paper will serve as a wick between box and garment. Polypropylene plastic is a good liner for an acid box. Drycleaners' plastic bags, however, can trap moisture and lead to mildew problems. Washed muslin can be used instead of tissue paper to pad a gown's folds.

Drycleaners will pad the folds and place the gown in one or more containers to protect it from dust and moisture. Vacuum-sealed containers aren't necessary and can contribute to eventual condensation problems, Johnson says. Any gown should be unpacked and refolded occasionally to prevent creases from becoming permanent.

A gown should not be stored where temperatures or moisture conditions are extreme. Attic heat or basement moisture can ruin a gown no matter how carefully it is packed, she concludes.

# # #

4,G

NHEC1443

June 26, 1986

Source: Deborah L. Brown  
612/624-7491

Editor: Sam Brungardt  
612/625-6797

## SOME FLOWERS DO WELL IN HOT, DRY PLACES

Some flowers are better suited than others for hot, dry places, says Deborah Brown, horticulturist with the University of Minnesota's Extension Service. Although these flowers will need watering periodically, they will flourish in light, sandy soils, on hillsides and in hard-to-maintain areas where moisture-loving plants would do poorly.

Brown says that annuals such as marigolds, African and gloriosa daisies, nasturtiums, calliopsis and California poppies provide sunny shades of yellow, gold and orange in dry, problem areas. Moss rose (portulaca), four o'clocks and annual phlox can add sparkling, jewel-like colors of rose, coral and lavender. Bachelor's buttons, cleome (spider plant) and annual babysbreath can lend a cool feeling to hot, exposed gardens with their soft, pastel colors.

"Many perennials grow well under similar conditions," Brown says. "Some of the more common ones we see in Minnesota are yarrow, coreopsis, babysbreath, daylily, coralbells, monarda

Page 1 of 2

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(beebalm), evening primrose, balloonflower, coneflower and numerous varieties of sedum.

Brown says one might also consider planting native prairie plants. Both grasses and flowering plants can be grown from seed. And once they're established, they thrive on neglect.

# # #

4,7,1

NAGR1436

# news

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

July 3, 1986

Source: H. William Schafer  
612/624-3938  
Writer: Deedee Nagy  
612/625-0288

## PREPARE FOR HOME CANNING SEASON NOW

Don't wait until your garden is overflowing with peas, beans and corn to begin canning preparations. H. William Schafer, food technologist with the University of Minnesota's Extension Service, suggests home canners inventory their canning equipment and check its condition now.

Vegetables are low-acid foods and they must be canned in a pressure canner to ensure safety. Schafer recommends checking the condition of sealing rims, pressure gauge and safety vents of the canner. Rubber gaskets should be flexible and free of cracks.

Beware of "bargain" pressure canners that may be sold at garage or rummage sales. Of concern are steam leaks around the lid and other questionable safety considerations in the design. Gauges can be checked for accuracy through local county extension offices. Faulty gauges can result in insufficient processing and potentially unsafe food.

Only jars made especially for canning food at home should be used. Mayonnaise, peanut butter or baby food jars should never

Page 1 of 2

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be used, Schafer emphasizes. These aren't meant to be used more than once and the jars may break in processing. Also, they are not designed for use with canning lids. This may result in a poor seal that will allow contamination and food spoilage.

Two-piece, self-sealing lids are recommended, Schafer says. Porcelain-lined zinc lids used with rubber sealing rings can also be used, but Schafer cautions that the rings should be used only once. Also, the lids should be discarded if chipped or corroded, or if the porcelain is not intact.

In addition to readying their equipment, Schafer advises home canners to stick to reliable instructions and timetables available from extension offices and major canning supply manufacturers. Shortcuts and techniques not scientifically-based can result in spoiled and potentially unsafe foods, he adds.

# # #

4,H,I

NHEC1452

July 3, 1986

Source: John Nieber  
612/625-6724

Writer: Jennifer Obst  
612/625-8762

## U OF M RESEARCH WILL LOOK AT PESTICIDE POLLUTION OF GROUNDWATER

In the last several years, there has been growing concern about the effect agricultural pesticides are having on groundwater quality.

"So far, nobody's been hurt by pesticides getting into groundwater from agricultural use, but there is not a lot of information on what quantity of pesticides could be harmful to humans," said University of Minnesota agricultural engineer John Nieber, who conducts research for the university's Agricultural Experiment Station.

The problem is that little is known about the route of water-soluble pesticides down through each layer of soil or how much of it actually ends up in groundwater. What percentage of the water movement in agricultural fields stays in the crop root zone, what percentage gets below the crop root line into the percolation zone, and what proportion eventually reaches the groundwater zone are also unknown. Research conducted by the experiment station eventually should answer these concerns, Nieber says. The Minnesota Legislature approved \$250,000 for the

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research earlier this year.

Experiments will be set up this summer, with some results expected in two to three years. "We need to judge the level of the current problem first on fields where we have records of pesticide practices," Nieber said. Later, researchers can evaluate the differences in pesticide movement through the soil due to different agricultural practices.

# # #

BSS,CEO,1,4,C

NAGR1459

July 3, 1986

Source: H. William Schafer  
612/624-3938  
Writer: Deedee Nagy  
612/625-0288

## FOLLOW THE BASICS TO ENSURE SAFE HOME-CANNED VEGETABLES

Canning is one way of preserving seasonal treats from the garden, but organisms that cause food spoilage are everywhere. Only careful pressure canning, however, will produce safe home canned vegetables, according to H. William Schafer, food technologist with the University of Minnesota's Extension Service.

The organisms that cause food spoilage--molds, yeasts and bacteria--are everywhere in the air, soil and water, he explains. When vegetables are canned, they must be heated hot enough and long enough to destroy all types of spoilage organisms, especially heat-resistant bacteria. For all vegetables except tomatoes, this can be accomplished only in a pressure canner heated to 240 degrees F.

Schafer adds that tomatoes and approved pickle recipes are the only exceptions to this vegetable rule because they, like most fruits, are acid foods. Spores of the deadly organism Clostridium botulinum will not grow and produce poisons (toxins) in acidic foods.

Page 1 of 3

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C. botulinum organisms are present on most foods, and they are very heat resistant. If the spores aren't destroyed by heat during the canning process, they can grow inside a sealed jar and produce toxins that can be fatal. Schafer says canning recommendations are based on the destruction of botulinum spores. When you destroy them, you destroy other spoilage organisms as well.

He says the only safe way to can food at home is to match the food product to the correct canning method, use safe recipes and follow recommended procedures. County extension offices, the U.S. Department of Agriculture, and the manufacturers of canning equipment and supplies are reliable sources of safe home canning recommendations. Avoid techniques from old cookbooks or "back-to-nature" publications, he cautions. These often have no scientific basis and can result in very dangerous home-canned foods.

There are several canning techniques that should be avoided. Open kettle canning is one. This involves packing hot food into hot jars and capping with hot lids. This method is not safe because food can be contaminated by microorganisms in the air and on utensils. Without further processing, microorganisms are likely to grow in the jars and the food will spoil.

Oven canning is not recommended either. Heat transfer in an oven is much slower and less predictable than in a pressure canner so the foods often would not reach the temperature needed to destroy C. botulinum spores. Also, excess pressure can build up inside a jar and cause it to explode. Microwave canning is also not recommended, Schafer adds.

He says careful home canning can preserve the bounty of the garden for enjoyment next winter. Safe canning is a precise scientific technique, however, and any practice that doesn't provide adequate processing may yield a potentially dangerous food.

# # #

4,H,I

NHEC1454

July 3, 1986

Source: Jane P. McKinnon  
612/624-9290  
Editor: Sam Brungardt  
612/626-6797

## IF GRASS SAYS 'NO', MAYBE GROUND COVERS WILL GROW

Every homeowner probably has at least one sunny area where grass will not grow or cannot be kept in good condition--a steep slope or a gravelly or soggy area. Jane McKinnon, horticulturist with the University of Minnesota's Extension Service, says ground covers may be the answer for such problem areas.

She says, "Plants that are used to cover large spaces must be inexpensive enough to use in necessary numbers. They must be able to grow vigorously under existing conditions without becoming weedy invaders of the whole landscape. They must survive winter and stay green from early spring to late fall without needing much maintenance. And, they must be attractive enough for the site being developed. Choosing the best ground cover for a particular place requires investigation of Minnesota-adapted plants and their needs."

Hardy creeping sedums will grow in dry, rocky, sandy places, on level ground or slopes. McKinnon says garden centers offer several useful kinds, including goldmoss, which grows vigorously in sun or shade; orange stonecrop, a drouth-resistant sedum that needs full sun; and dragonsblood, a popular sedum that blooms

Page 1 of 3

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red-purple in midsummer. Many other kinds are available, with flower colors that range from white to pink to several shades of yellow.

Creeping sedums spread by shoots and seeds and can outgrow their allotted space quite easily, according to McKinnon. However, they can be cut back or sheared as needed.

McKinnon says, "Sedums grow so easily that they are not expensive to establish. Small plants can be set 9 to 18 inches apart, and cuttings or divisions can be used to get more plants quickly. Care is simple if sedums are planted in well-drained, weed-free soil. Weeds must be removed as they sprout by pulling or cultivating, but diseases and insects seldom cause damage. Rots and leaf spots often develop, however, if sedum is misplaced in a soggy location."

Birdsfoot trefoil is a low, yellow-flowering legume that grows well in dry, sunny and sandy locations. Trefoil can be established on slopes by seeding if the area has been cultivated or by planting nursery-grown seedlings. Weeds can be discouraged by mowing once or twice a summer with a mower set high enough to avoid damaging the trefoil. The Minnesota Department of Transportation has had great success with this ground cover along roadsides. McKinnon says birdsfoot trefoil is best suited to naturalistic landscape compositions; it blends well with native plants.

Creeping phlox or moss pink is a more refined ground cover that is well suited to sunny, well-drained locations. McKinnon says, "It carpets large expanses of roadsides, banks, cemetery turf and garden edges along the North Shore. When in bloom, its white, blue, pink and rose flowers suggest brilliant water color paintings. Plants can be divided after they bloom in the spring, but roots are sparse on young shoots. Potted plants from garden centers are easier to establish. They can be set 10 to 12 inches apart for quick coverage."

Canby pachistima is an elegant, hardy ground cover that makes a beautiful edge for azalea and rose beds. This low, evergreen shrub has small, shiny leaves and grows best in full sun on well-drained soil. Like most broadleaf evergreens, pachistima needs snow cover to survive winters without damage in Minnesota. In ideal locations, a plant can spread over 3 to 5 feet, but it will take several seasons to reach that size. McKinnon says that hand weeding will be necessary in the interim.

The University of Illinois sells a detailed, illustrated reference, "Ground Covers for the Midwest". This detailed, soft-cover book, Special Publication 65, may be ordered from the Ag Publications Office, 47 Mumford Hall, University of Illinois, Urbana, IL 61801. A University of Minnesota fact sheet, "Ground Covers for Rough Spots", is also available as item number AG-FS-1114 from county extension offices throughout Minnesota.

July 10, 1986

Source: H. William Schafer  
612/624-4793  
Writer: Deedee Nagy  
612/625-0288

## QUALITY FOR KEEPS SHOULD BE GOAL IN JAM, JELLY MAKING

Homemade jams and jellies are a way of carrying the delights of this summer's fruits over for your enjoyment next winter when gardening is merely a memory. To assure that kind of keeping quality, H. William Schafer, food technologist with the University of Minnesota's Extension Service, says careful handling and proper processing in a boiling water bath are essential.

Paraffin seals for jams and jellies are no longer recommended by either the U.S. Department of Agriculture or the University of Minnesota, according to Schafer. Heat treatment is needed, he adds, to destroy mold that might produce toxins in the jelly or jam. This can only be done by using two-piece canning lids and by processing in a boiling water bath.

He also cautions against experimenting with the amounts of sugar in sweet spreads. Sugar is a preservative for the fruit and it also aids in gelling. Cutting the quantity will produce a runny product or one that is likely to spoil. There are recipes for low sugar jams and jellies, but Schafer says these must

Page 1 of 2

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either be frozen or kept refrigerated and used within a few weeks.

There are ways to substitute corn syrup or honey for some of the sugar in a recipe. Schafer says, however, that this should be done following instructions from the Extension Service or a canning equipment supplier. Artificial sweeteners cannot be substituted for sugar in recipes that require heat treatment.

Jams and jellies should be prepared in small batches, he says. Never double a jam or jelly recipe. If cooked for the usual time, it will be undercooked and runny. If boiled long enough to gel, it will be dark and have a caramelized flavor.

Homemade spreads are popular gifts, but Schafer advises against selling such products. Food manufacturers, even on a small scale, must meet exacting sanitation and human safety standards. If a person were to become ill from eating improperly preserved foods, you could be held legally responsible, he adds.

# # #

4,H,I

NHEC1463

July 10, 1986

Source: Jane P. McKinnon  
612/624-9290  
Editor: Sam Brungardt  
612/625-6797

## GROUND COVERS MAY BE SOLUTION FOR SHADY AREAS

Minnesota homeowners find it frustrating to replace bluegrass sod year after year after it fails to become established in densely shaded areas. Jane McKinnon, horticulturist with the University of Minnesota's Extension Service, suggests that shade-tolerant hardy ground covers might work well in such problem areas.

She says, "The shade may come from the house or other building, a large, mature tree, a wall or fence. Grass can't grow well in such areas because they are entirely different from the open prairies where grasses thrive.

"Almost every gardener knows bishopsweed or goutweed, which is often incorrectly called 'snow-on-the-mountain, and moneywort or creeping jenny. These plants spread quickly in moist, shady places, but there are many more manageable and handsome choices."

What does McKinnon suggest?

Wild ginger is one possibility. McKinnon says this hardy native is well suited to moist, shaded soils that are rich in humus. It's large leathery leaves make a handsome, 6-inch deep,

Page 1 of 2

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textured carpet. Garden centers offer wild ginger in their wildflower sections. McKinnon says plants should be spaced 8 to 12 inches apart. The planting will have to be weeded until the second or third season, when the plants begin to produce seedlings that quickly fill in any open spaces.

McKinnon says several evergreen ground covers are suitable for shaded places where snow cover is dependable. European wild ginger, which has glistening leaves; richly colored purpleleaf wintercreeper; Japanese spurge (*Pachysandra*); common periwinkle (*Vinca minor*); and bugleweed or *Ajuga* are all possibilities.

She says, "Vinca and *Ajuga* bloom blue in the spring and are excellent companions for spring bulbs. All of these handsome plants will thrive in moist, shaded areas high in organic matter. Under good conditions they spread rapidly without becoming uncontrollable."

McKinnon suggests that gardeners interested in less common plants might want to experiment with *Epimedium* species and hybrids. These low-growing, spreading perennials have leathery leaves, often with rosy veins and edges in the spring and red fall color. Their showy, red, yellow or violet flowers make interesting additions to a shaded garden in the spring.

# # #

July 17, 1986

Source: Vern Eidman  
612/625-2749

Writer: Jack Sperbeck  
612/625-4730

## LARGER FARMS MAY STILL HAVE TAX SAVINGS

Current tax reform legislation would continue to let farmers deduct interest expenses and use cash basis tax accounting.

Those are the two largest tax savings measures for large Minnesota farms, according to a University of Minnesota Agricultural Experiment Station study.

Larger farms with over \$200,000 in annual sales (1972 dollars) had annual tax savings of \$9,500 from 1979-82. Interest deductions accounted for 33 percent of the tax savings and cash accounting made up another 27 percent.

Medium-size (\$100,000-200,000 in annual sales) and small (less than \$100,000) farms had more tax savings from accelerated depreciation and capital gains than the larger farms.

The study by agricultural economists Gregory Hanson and Vernon Eidman was based on an analysis of 163 records of Minnesota Farm Management Association member farms. It documented the hard farm economic conditions of the early 1980s. Unused credits and deductions nearly doubled from the mid-70s, a sign that net incomes were lower than anticipated.

Page 1 of 2

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Proposed tax reform legislation would eliminate investment credit and declaring the increased value of livestock breeding stock as capital gains. "Eliminating these two tax savings won't have an overwhelming effect on farmers," Eidman says. Capital gains provisions accounted for 3 percent of annual tax savings on large farms and 8 to 10 percent on small and medium farms. Investment credit amounted to 15 to 16 percent of tax savings for all three farm sizes.

Slowing the depreciation schedule (a provision of the House, but not the Senate bill) would hurt small and medium-size farms more than large farms, according to the study. Accelerated depreciation accounted for 30 percent of tax savings for small farms, 27 percent for medium-size farms and 21 percent for large farms.

# # #

AEA,BSS,CEO,1,4,S

NAGR1472

# news

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

July 17, 1986

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

## HELP PREVENT FARM ACCIDENTS

Tractors and harvesting equipment contributed to more than half the 59 farm-related accidents recorded in Minnesota in 1985. Persons in 34 of the state's 87 counties were involved.

"Now is a good time to think accident prevention to keep next year's figures from including you," says John True, agricultural engineer and safety committee chairperson with the University of Minnesota's Extension Service.

Males from ages 5 to 78 were involved in all but two of the accidents. Fifteen accidents involved tractors; thirteen, harvesting equipment; eight, augers and elevators; seven, other machinery; seven, falls; two, animals; two, tractors on highways; two, miscellaneous (a trench wall fell while tiling and a knee was cut while chopping ice); and one each were attributed to grain bin (lung dust damage), toxic gases and burns.

Six of the tractor accidents involved the power takeoff. Falling from tractors and being dragged by a disk or cultivator happened often. In other instances, a tractor rolled backward, another rolled down a slope. There were broken arms and legs,

Page 1 of 2

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and losses of fingers and hands in the accidents reported. Falls occurred from a hay mow, potato harvester, granary, grain bin, and from ladders in a grain bin and a barn.

These counties tallied farm accidents: Big Stone, Brown, Chippewa, Crow Wing, Blue Earth, Cottonwood, Fillmore, Freeborn, Goodhue, Houston, Isanti, Jackson, Lyon, Marshall, Martin, Meeker, Mower, Pine, Pipestone, Polk, Pope, Red Lake, Redwood, Renville, Scott, Sherburne, Sibley, Stearns, Swift, Todd, Washington, Watonwan, Winona and Wright.

# # #

CEO,1,4

NAGR1468

# news

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

July 17, 1986

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

## 8-PAGE GUIDE ON READY-MIX CONCRETE IS AVAILABLE

What kind and how much concrete to order for a job on the farm or home is included in a digest from Midwest Plan Service.

Ordering, placing and finishing ready-mix concrete is described in "Farm and Home Concrete," according to Donald Bates, agricultural engineer with the University of Minnesota's Extension Service. Slabs on the ground, such as driveways or feedlots, are emphasized.

Properties of concrete and terms such as "slump," "air entrainment," "water-cement ratio," "aggregates" and "admixtures" are explained.

Home mixing of concrete is practical for small jobs, though it is becoming less common, so trial mixes and other recommendations are covered. There are also safety tips and hot and cold weather precautions.

"Farm and Home Concrete", AED-26, costs \$1.50 and can be ordered from the Department of Agricultural Engineering, University of Minnesota, St. Paul, MN 55108. Two other concrete digests are also available from the department: "Slip Resistant Concrete Floors," AED-19, for 50 cents and "Tilt-Up Concrete Construction for Agriculture," AED-22, for \$1.50. Checks should be made payable to the University of Minnesota.

# # #

BSS,CEO,1,4,7

NAGR1471

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July 17, 1986

Source: John True  
612/624-5830  
Editor: Mary Kay O'Hearn  
612/625-2741

## CHECK STORAGE TANKS FOR LEAKS

To protect underground water from contamination, tighter regulations are attempting to control and prevent leaks of hazardous materials from underground storage tanks.

Tom Clark, senior hydrologist with the Minnesota Pollution Control Agency, says, "Minnesota has more than 50,000 underground tanks, most used to store petroleum products." The agency estimates that a fourth of these tanks may be leaking into ground water.

John True, safety committee chairperson with the University of Minnesota's Extension Service, says some of the underground tanks (of 2,000- to 3,000-gallon capacity) could be located on large farming operations. Small leaks can add up to large losses and large contamination over a year's time.

True recommends recording, or at least estimating, amounts withdrawn from a tank to compare that with amounts purchased to check for possible leaks or losses.

The new law calls an underground storage tank any enclosure, tank or vessel used to contain or dispense regulated materials

Page 1 of 2

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and which has at least 10 percent of its volume buried below ground. This includes any pipes attached to the tank.

Above-ground tanks with extensive underground piping may also be considered underground tanks, according to the new law, which the 1985 Minnesota Legislature passed and intended to be stricter than federal law.

The new law doesn't apply to septic tanks or underground farm/residential tanks of less than 1,100-gallon capacity which are used to store motor fuel or heating oil, to tanks which are above the surface of a room or an area which itself is below ground level, or to pipeline facilities.

New tanks may not be installed underground unless construction is compatible with contents to be stored or is steel encased in noncorrosive material, is cathodically protected from corrosion or otherwise designed to prevent release of stored substances and is installed according to specific requirements and all manufacturer's recommendations.

From Jan. 1, 1986 through July 1, 1987, any person depositing regulated substances (such as fuels, pesticides or solvents) in underground tanks must inform the owners or operators in writing of their responsibility to notify the Minnesota Pollution Control Agency. This notification also applies to changes in tank ownership, use, or contents.

# # #

# news

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

July 24, 1986

Source: Barbara Muesing  
612/625-6300  
Writer: Jack Sperbeck  
612/625-4730

## PUBLIC MEETING SCHEDULED ON MINNESOTA EXTENSION SERVICE

A public meeting to get ideas on the future mission of the Minnesota Extension Service is scheduled for 7 p.m. Monday, Aug. 11, at the Radisson Metrodome Hotel in Minneapolis.

This is the last of five meetings scheduled by the University of Minnesota's Board of Regents, which is conducting a review of the Minnesota Extension Service at the request of the Minnesota Legislature. Previous public meetings were held in Marshall, Owatonna, Grand Rapids and Detroit Lakes.

The review committee would like ideas on future programs, how they should be delivered to Minnesota citizens and funding. To assure time on the program, people wishing to testify should contact the Regents' Office at 220 Morrill Hall, University of Minnesota, Minneapolis, MN 55455. Phone 625-6300.

# # #

AEA,BSS,CEO,4,7

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Page 1 of 1

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July 24, 1986

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

## SEED SOME FALL VEGGIES IN EARLY AUGUST

Early August is a good time to plant a few rows or clusters of quick-maturing vegetables for fall harvest, according to Deborah Brown, horticulturist with the University of Minnesota's Extension Service.

Brown says, "Try to get the seeds in the ground between Aug. 1 and 15 so plants will really come into their own with the cooler days and longer nights of September.

"Plant leafy vegetables such as spinach, leaf lettuce or beets primarily for their greens. Kohlrabi, radishes and green onions from seed are also good choices for late-season gardening. Turnips, too, should do well when planted in the beginning of August. They can be harvested after a few frosts or left in the ground over winter and harvested first thing in spring."

As with spring gardening, soil should be worked up, and a balanced fertilizer such as 10-10-10 incorporated before seeds are planted. Once seedlings emerge, a layer of mulch, 2 to 4 inches deep will help keep soil from overheating as well as help conserve moisture. Regular watering is essential, Brown says, since some hot weather generally occurs in August.

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Page 1 of 1

NAGR1477

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

July 24, 1986

Source: H. William Schafer  
612/624-4793  
Writer: Deedee Nagy  
612/625-0288

## TOMATOES ARE FAVORITES OF GARDENERS, HOME CANNERS ALIKE

Tomatoes are the most common homegrown vegetable crop in Minnesota. And, as good gardeners know, a harvest of ripe tomatoes can spur a home canning project to preserve that abundance.

H. William Schafer, food technologist with the University of Minnesota's Extension Service, says that although tomatoes can be frozen or dried as well as canned, canning generally produces a product consumers prefer.

Tomatoes are relatively easy to can because they generally contain enough naturally occurring acids to permit processing in a water bath canner rather than in a pressure canner. According to Schafer, research on 65 tomato varieties conducted by the Minnesota Agricultural Experiment Station and the U.S. Department of Agriculture found no varieties of firm, ripe tomatoes with a pH higher than 4.6.

The pH scale ranks acidity. Foods that have a pH below 4.6 are acid enough to prevent the production of botulinum toxin, which can cause serious food poisoning. In home canning, foods such as meats and most vegetables with a pH over 4.6 must be processed in a pressure canner at temperatures over 212 degrees F to destroy the botulism

Page 1 of 2

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organism.

Schafer stresses, however, that as tomatoes ripen from green-to-slightly-underripe to firm ripe and finally to overripe, the amount of acidity decreases. Soft, overripe and decayed tomatoes should not be used for any home canned tomato products because of the botulism risk from the decreased acidity.

Subsequent to early Minnesota and USDA tests, a few tomato varieties not commonly grown in Minnesota have tested low enough in acid to be potentially hazardous for home canners to use. These include Garden State, Ace, Ace 55UF and Cal Ace.

Schafer says, "If you have concerns about the tomato variety you plan to can and wish to be certain of its acidity, you may want to follow the USDA canning method, which includes adding either bottled lemon juice or citric acid to the tomatoes."

He says mixtures of tomatoes, celery, peppers and onions can also have potentially dangerous pH levels depending on the amount of celery, peppers and onions in relation to the tomatoes. The Department of Food Science and Nutrition at the University of Minnesota has developed a formula for canned tomato mixtures that can be processed safely by the methods and times given for tomatoes alone.

Specifics on both the USDA method for adding lemon juice or citric acid to tomatoes and the Minnesota tomato mixture are given in the recently revised fact sheet, "Home Canning Tomatoes" (HE-FS-1097), available from county extension offices.

# # #

July 31, 1986

Source: Warren Sifferath  
612/463-3302  
Writer: Jack Sperbeck  
612/625-4730

### 3 MINNESOTA EXTENSION AGENTS RECEIVE AWARDS

Three University of Minnesota Extension Service agents have received awards from the National Association of County Agricultural Agents (NACAA).

John Cunningham, Ortonville, and Samuel Bigger, Crookston, received Distinguished Service Awards. Timothy J. Arlt, Owatonna, received an Achievement Award. The awards were presented at the NACAA annual meeting in Colorado Springs, Colo., July 31.

Distinguished Service Awards requirements include a minimum of 10 years with the Extension Service and 10 years of membership in the NACAA. Only 2 percent of each state's membership may receive the award each year.

One Achievement Award per state may be awarded to an applicant with less than 10 years in Extension.

Cunningham, Big Stone County agent, was honored for his leadership in southwest Minnesota farm business management programs. He is on special assignment in southwestern Minnesota working on Project Support, Minnesota's rural crisis program.

Page 1 of 2

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His Project Support activities helped farm families, lenders and other extension agents work with FINPACK, the university's computerized farm financial planning program. Cunningham also helped develop efficient crops and livestock programs and built a strong 4-H volunteer leader network.

Bigger, West Polk County agent, is now serving as an area marketing agent in northwestern Minnesota. He developed strong crop production programs in a county where crops are 90 percent of cash farm income. He established marketing clubs and organized credit courses in commodity marketing and technical analysis of marketing. Bigger was cited for helping many farmers develop sound management skills.

Arlt developed a major two-year program in grain marketing. About 90 farmers and agribusiness people took the initial course, which included news articles and radio programs. An advanced marketing program was offered for those completing the basic course. An evaluation showed that participants had more knowledge and had changed their marketing strategies. There was an increase in farmers using forward price contracts and government programs and a decrease in using basis contracts and cash sales.

# # #

AEA, BSS, CEO, IAC, 1, 4

NAGR1493

July 31, 1986

Source: Deborah Brown  
612/624-7491

Editor: Sam Brungardt  
612/625-6797

## AUGUST LAWN TIPS

Most of August is hot and dry in Minnesota. All one can really do for a lawn is water it regularly and cut it when necessary or allow the grass to go dormant until autumn rains green it up again.

Applying weedkillers is not a good idea in really hot weather, says Deborah Brown, horticulturist with the University of Minnesota's Extension Service. Neither is fertilizing unless one has the capability of watering thoroughly and often.

Brown says, "Towards the end of August or just into September, it's a different story. Once the hot weather breaks, conditions become excellent for lawn work. Thin areas may be seeded and hard, compact soil may be opened up and improved by aerifying. Lawns with over 1/2 inch of thatch can be power raked.

"Whether your grass needs lots of help or looks good already, late August or early September is time for the first fall fertilizer application. A ratio of approximately four parts nitrogen to one part phosphorous and two parts potassium should

Page 1 of 2

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work fine, unless you've had a soil test that suggests a different combination for your particular location. The final application of fertilizer should be made in late October or early November, when the grass no longer needs mowing."

Broadleafed weeds can be sprayed in late summer or early autumn, once the temperatures are consistently back down in the 70s or very low 80s. This spraying, combined with the onslaught of cold weather is often the one-two punch that finally does weeds in.

So, relax. August is mainly for planning your lawn improvement strategy. The actual work is still down the road.

# # #

4,7,I

NAGRI480

# news

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

July 31, 1986

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

## PLANT BEARDED IRIS NOW FOR COLOR NEXT SPRING

Did you admire the huge, ruffly iris in your neighbor's garden this spring? Deborah Brown, horticulturist with the University of Minnesota's Extension Service says the new cultivars are so large and showy that they make the old-fashioned iris look rather primitive. Unlike some so-called "improved" flowers, most of the new hybrids are not only beautiful but delightfully fragrant as well.

Brown says that iris can be planted any time from mid-July through early September. Large clumps can also be cut back, divided and replanted at this time.

Choose a sunny, dry location for bearded iris, Brown advises. Their fleshy rhizomes must have good drainage. Work fertilizer (perhaps 5-10-10) and some organic matter into the soil, but don't use manure unless it is very old and well composted. Plant the rhizomes horizontally, barely covering them with soil. Water the iris thoroughly initially, then sparingly until new growth is evident.

Brown says, "Although iris are very hardy, it's not a bad

Page 1 of 2

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idea to give them a little extra protection the first winter. Mulch with several inches of marsh hay or straw, then rake it off first thing in the spring. Once new spring growth is 4 to 6 inches tall, spray for iris borer, the number one pest. Then, sit back and enjoy your iris. It's as simple as that!"

# # #

4,7,I

NAGR1479

Aug. 7, 1986

Source: Jeffrey D. Hahn  
612/624-4977  
Editor: Sam Brungardt  
612/625-6797

## MIGRANT INSECT HAS A TOOTH FOR BLUEGRASS LAWNS

Most insect pests that one sees on established lawns in Minnesota are able to survive winters here. However, one pest, the greenbug, has to make its way up to Minnesota every year from the south because it doesn't survive the cold.

Greenbug is actually an aphid, says Jeffrey Hahn, entomology educator with the University of Minnesota's Extension Service. This small, soft-bodied, yellow-green insect can appear on bluegrass lawns literally overnight; it is brought north on air currents in late July or August.

Hahn says that greenbugs are usually found in shaded areas, such as around trees and shrubs. In areas where they are feeding, the grass looks yellowed and individual blades often have burnt orange-colored spots. The small aphids can be seen after careful examination of such an area. Hahn says the insecticide acephate (Orthene) can be sprayed on affected areas as soon as a greenbug damage is identified.

# # #

4,7,I

NAGR1482

Page 1 of 1

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Aug. 7, 1986

Source: Jane P. McKinnon  
612/624-9290  
Editor: Sam Brungardt  
612/624-9290

## AUGUST IS IDEAL TIME TO PLANT SOME PERENNIALS

August is the month to divide or plant oriental poppies, showy bleeding heart and lilies-of-the-valley. It's also the month to order daylilies or peonies for September planting.

Jane P. McKinnon, horticulturist with the University of Minnesota's Extension Service, says, "Stella D'Oro, the first recurrent-blooming, dwarf daylily for northern climates is now on the market, and it is successful in Minnesota. This daylily grows about a foot high and has 2- to 3-inch, canary yellow blossoms. It begins to bloom in June and continues with intermittent flowers until cold weather. This charming variety won the Stout Medal in 1985, the highest honor for daylilies. Since it is a new hybrid, it is more expensive than older, fine daylilies, but the plants grow rapidly and can be divided for increase in three or four seasons."

No garden perennial in Minnesota is hardier or longer-lasting than the peony. They are almost permanent additions to a well-planned border.

"Fine peonies are investments that repay gardeners year after

Page 1 of 2

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

year," says McKinnon. "Breeders continue to develop hybrids that expand the colors and forms of these handsome plants. Prairie Moon, a new semidouble, has creamy white flowers with a tint of yellow. Seashell, an older single pink was delightful this June at the Minnesota Landscape Arboretum, planted in combination with pink iris, blue baptisia and pink Carefree shrub roses. Red Charm is one of the newer, spectacular red, double-flowered hybrids."

Peonies should be given ample room, according to McKinnon. They should be planted at least 3 feet apart in a fertile, well drained soil in full sun.

# # #

4,7,I

NAGR1478

Aug. 11, 1986

Source: April Narcisse  
(612) 624-4777  
Writer: Sam Brungardt  
(612) 625-6797

## EXTENSION OFFICES HAVE APPLICATIONS FOR FARM FAMILY SCHOLARSHIPS

Financially troubled Minnesota farmers, their spouses and dependent children living at home can now apply for Regents' Farm Family Scholarships at the county offices of the University of Minnesota's Extension Service. In July, the Board of Regents of the University of Minnesota approved the scholarship program, which is intended to help financially hard-pressed farm families obtain the education needed for alternative careers.

These are the guidelines for the scholarships:

--Applicants must operate a family farm in Minnesota and demonstrate through normal financial needs analysis that they are in imminent danger of, or in the process of, losing their farm operations through foreclosure or repossession, or are facing debt restructuring as verified by the Minnesota Extension Service. The primary criterion will be a debt:asset ratio of 70 percent or greater for the farm business. This analysis must have been determined after Jan. 1, 1986.

--Applicants can include spouses of qualified persons and dependent children who live at home.

Page 1 of 2

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--Applicants can receive tuition scholarships for up to six credits per quarter for a maximum of three quarters over a two-year period. Students enrolled for more than six credits are not eligible for the scholarship.

--Applicants must be admitted as degree-seeking or adult special students on the campus they choose to attend.

--Applicants will be enrolled in existing courses on a space-available basis after regularly enrolled students have registered. Each campus registrar will have final authority to approve applications for this scholarship.

# # #

1AC,1,3,4

NEXT1505

Aug. 14, 1986

Source: Jane P. McKinnon  
612/624-9290  
Editor: Sam Brungardt  
612/625-6797

'IT'S NOT WORK, IT'S OUR GARDEN!'

"It's not work, it's our garden!" These are the sentiments of a lawyer, police chief and power company boss who enjoy growing plants instead of long-distance running, golfing or driving miles to fish. These devoted gardeners do not mind some toil, much sweat and a few tears when things go wrong.

"Difficulties of garden maintenance have been overemphasized in recent years, leading to some strange practices that deny the natural growth and needs of plants," says Jane P. McKinnon, horticulturist with the University of Minnesota's Extension Service. "Too much rock is being poured over too much plastic, too close to trees, shrubs, flowers and groundcovers that need moisture, organic soil amendments, oxygen for roots and natural conditions for plants that evolved in woodlands and open fields."

McKinnon says that severe, hasty pruning to hold plants planted in the wrong location within bounds is both time consuming and extremely damaging to many shrubs and trees. She says, "Pruning to a tight, geometric shape often divorces a plant from the finest qualities of Minnesota natural scenery.

Page 1 of 2

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Evergreens should stand soft and feathery in most gardens; leafy shrubs flower best on graceful branches.

"Weeding is not an ordained punishment for past sins. A sharp hoe or garden cultivator can quickly eliminate unneeded plants while the gardener enjoys the sun, fresh air and the close company of flowers and fruit. Weeding is mild exercise, best attacked in small increments while picking berries, transplanting a few seedling perennials or cutting daisies for the house."

# # #

4,7,I

NAGR1487

Aug. 14, 1986

Source: Jeffrey D. Hahn  
612/624-4977

Editor: Sam Brungardt  
612/625-6797

## POOR SANITATION LURES PICNIC BEETLES TO GARDENS

One pesky insect that can be found in gardens are picnic beetles, small, black insects with orange spots.

"Picnic beetles are attracted to fermenting or souring smells and can be found feeding on overripe and rotting fruits and vegetables, such as corn, melons, berries and tomatoes," says Jeffrey Hahn, entomologist with the University of Minnesota's Extension Service. "They may also attack nearby fruits and vegetables that have not finished ripening."

Hahn says the best way to keep picnic beetles away is to avoid leaving overripe and rotting fruit and vegetables lying around. By disposing of such produce, picnic beetles will be less attracted to a garden.

Insecticides do not provide effective control. Hahn says, "If you spray, you will kill only those beetles that are present. The insecticide residue that is left on the plants prevents you from harvesting anything right away. And by the time it is safe to pick something, new picnic beetles will have come into the garden. In the end, it's better to observe good sanitation practices to keep picnic beetles out of your garden."

# # #

Aug. 14, 1986

Source: Ellen Schuster  
612/624-7479  
Writer: Deedee Nagy  
612/625-0288

## THE SALT BATTLE INVOLVES MORE THAN PUTTING DOWN THE SHAKER

Some 60 million Americans suffer from hypertension. For them, cutting down on sodium is a key to staying healthy, but it can involve a lot of detective work as they select food.

Ellen Schuster, coordinator and nutritionist of the Expanded Food and Nutrition Education Program with the University of Minnesota's Extension Service, says new requirements from the Food and Drug Administration (FDA) require that processed food labels give nutrition information, including the sodium content.

As part of that new regulation, the FDA has defined the terms that manufacturers may use when they make a sodium claim:

"sodium free"--less than 5 mg. per serving

"very low sodium"--35 mg. or less per serving

"low sodium"--140 mg. or less per serving

"reduced sodium"--at least a 75-percent reduction in the usual sodium level

"unsalted"--processed without the salt normally added to such a product

Page 1 of 2

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Schuster adds that even with the new label information, there still will be foods that don't give their sodium content. The ingredient list will give you some clues. Remember, there is sodium in baking powder, soy sauce and monosodium glutamate (MSG), for example.

If you are cutting down on sodium, concentrate on unprocessed foods. "If you start from scratch, you're in charge of the amount of salt you add," Schuster suggests. "If you are making something with cured meat, canned soup, cheese or canned vegetables, don't add any salt. Lemon juice, spices and herbs may substitute well for the salt taste you're accustomed to in food."

She also suggests balancing the sodium content of a whole day's meals. If you have a high-sodium breakfast, plan on low-sodium foods for lunch and dinner. When dining out, choose foods without sauces or ask for sauce on the side so you can control the amounts.

# # #

4,7,H

NHEC1508

Aug. 21, 1986

Source: Stanley Stevens  
612/625-8770  
Writer: Jack Sperbeck  
612/625-4730

## FARMLAND STABILIZATION PROGRAM IS NEEDED

Policies removing farmland from the market might avoid a period of severely depressed land prices like we had in the 1940s, says a researcher with the University of Minnesota's Agricultural Experiment Station.

Without a land market stabilization policy there's a good chance land values could go all the way back to 1940 "real" levels (adjusted for inflation), says Stanley C. Stevens, who has just completed a historical study on Minnesota farmland values relative to the land's annual gross income.

The 1940 real value of southwestern Minnesota farmland is \$522 per acre in 1985 dollars. "At this level, all productivity gains that farmers made in terms of moderate appreciation in their land values will dissipate," Stevens says.

"Directed stabilization policies would benefit primarily current landowners by helping them preserve their share of agriculture's productivity gains. This would be at the expense of new land investors who would forego the opportunity of buying depressed land.

Page 1 of 2

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"A period of about 10 years--as the early 1940s and early 1950s suggests--might be a sufficient period of adjustment after which land could be returned to the private sector. In the long run, this could probably be done at minimal cost to taxpayers if land values were supported only at levels consistent with long-term equilibrium relationships between land income and land values."

Without such policies, we could be looking at a "shock effect similar to the 1920s and 1930s that resulted in an overly depressed land market in the 1940s and 1950s," Stevens wrote in his report. "Land stabilization policies that acknowledge the necessary downward correction but avoid the excesses would be constructive."

Single free copies of the report, Staff Paper P86-31, are available from the Department of Agricultural and Applied Economics, University of Minnesota, St. Paul, MN 55108.

# # #

AEA,BSS,CEO,1,3,4,S

NAGR1545

# news

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

Aug. 21, 1986

Source: Deborah L. Brown  
612/624-7491

Editor: Sam Brungardt  
612/625-6797

## ENJOY MINNESOTA'S EARLY APPLES

Minnesota orchards offer a number of tasty apples in early autumn. "Generally speaking, the earlier the fruit ripens, the briefer will be it's storage life," says Deborah Brown, horticulturist with the University of Minnesota's Extension Service. "So, these are apples to eat and enjoy now, not to count on for winter snacking."

"Many people who grow apples at home choose a combination of early- and late-maturing apples to cover the longest possible season of use," Brown says. "If you're in the market for an early apple for your yard, this is the ideal time to sample the fruit; next spring is the time to plant the tree."

State Fair and Beacon are probably the best known early apples in Minnesota because they ripen at fair time. "These apples offer a healthy, nutritious and delicious alternative for fairgoers, who have had their fill of more typical fair food," Brown says. "In addition to eating them out of hand, each can be used for pies or sauce."

Brown says Chestnut Crab is a large crabapple or small apple that should be planted much more. The fruit, which ripens in September, is crisp and juicy with a spicy, sweet flavor.

"Although Chestnut Crab can be used for pickles and sauce, it's a

Page 1 of 2

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wonderful fresh snack, just the right size for little children," Brown says. "Many adults find it hard to eat just one, so they grab two or three at a time."

Wealthy was one of the first apples developed in Minnesota, and it's still a favorite early eating apple, ripening around the middle of September. Brown says Wealthy is good for pies and sauce as well as for baking.

After mid-September, many other cultivars become available. Minjon, Red Baron, Lakeland, Sweet Sixteen, McIntosh, Cortland, Northwestern Greening and Redwell all ripen the second half of September in a typical year. Other long-keeping favorites such as Haralson, Regent, Fireside and Keepsake usually don't ripen until early to mid-October.

# # #

4,7,H,I

NAGR1510

Aug. 21, 1986

Source: Jane P. McKinnon  
612/624-9290  
Editor: Sam Brungardt  
612/625-6797

## YOUR PLACE MAY BE UNDER THE LINDENS

The search for the right tree is a continuing challenge for Minnesotans who need shade and shelter to enjoy outdoor living.

There is no one ideal shade tree, says Jane P. McKinnon, horticulturist with the University of Minnesota's Extension Service. Every tree is bothered by some pest or weather condition. Proof of this is the continuing march of Dutch elm disease through the state, black walnuts succumbing to flooded conditions in southern Minnesota, and leaf spot and insect attacks seen on ash this year.

McKinnon says that losing a tree, although unfortunate, is sometimes an opportunity to plant a tree that will insure comfortable, pleasant outdoor spaces for years to come.

Large trees need space to grow. American linden (basswood) is native to much of the state. McKinnon says this handsome tree has a sturdy, upright form and matures at 50 feet or taller in ideal locations. For this reason, it should not be planted under power lines or in other restricted places. The leaves are dark green and fragrant flowers appear in late June or early July.

Page 1 of 2

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Autumn turns the leaves bright gold. American linden grows best in fertile, moist soils, but can survive on poor, dry sites if nutrients and water are supplied as needed. Soggy, undrained pond edges or wet meadows are not suitable for lindens.

"Smaller European lindens are useful for many landscape developments in Minnesota," says McKinnon. "Greenspire, an upright, almost conical cultivar, is successful along streets and in home grounds. Littleleaf linden has a more informal shape, often growing with several strong stems. These lindens usually mature at about 35 feet, but Greenspire is much narrower than littleleaf linden. Both have dark green, attractive leaves, fragrant blooms and gold fall color."

Redmond Linden is another medium-size landscape tree. It is compact and triangular in outline and grows well in many Minnesota locations.

McKinnon says, "Minnesota nurserymen offer lindens in several sizes, smaller ones in containers and trees 2 inches or more in diameter balled and burlaped. If you have a hot spot where this summer has made you long for cool shade, fall planting is a good time to make your life more comfortable in summers to come. The avenue of lindens along Folwell and Gortner on the St. Paul campus of the university is ready for your inspection, as is the Linden collection at the Minnesota Landscape Arboretum."

Aug. 21, 1986

Source: Stanley Stevens  
612/625-8770  
Writer: Jack Sperbeck  
612/625-4730

## WILL THERE BE A NEW MARKET ENVIRONMENT IN AGRICULTURE?

Volatile farm and food prices could result from market-oriented policies of the latest farm bill. And that could spell improvement for farmers.

"We could be back to a pre-1948 market environment in terms of price volatility," says Stanley C. Stevens, economist with the University of Minnesota's Agricultural Experiment Station. He's just completed a historical study of farmland values relative to land's annual gross income, with resulting policy implications.

"The pre-1948 market environment had periods of good prices as well as poor. Prices did not stay low over an extended period," Stevens wrote in his report.

For corn, this would be a market environment like that of the livestock industry. "Risks are there, but they are known and manageable. And at times there's a substantial reward for assuming these risks," Stevens says.

But a volatile market environment has its political disadvantages. "The 1973-75 period is an example. This brief period is the only period since World War II of similar volatility," Stevens wrote.

Page 1 of 2

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"Television news cameras were brought into supermarkets to interview consumers about meat and food prices. A consumer boycott protesting food prices made headlines in the evening news.

"Richard Nixon responded by placing a ceiling on meat prices for 60 days. This was followed two weeks later by an embargo on sales of 1972 crop soybeans. And the embargo caused the Japanese to eventually invest in expansion of South American soybean production. Politically, the question of a reliable and reasonably priced food supply is extremely important to all nations."

A return to the pre-1948 market environment could be an improvement in the long run for the farming community. But its real test as policy would come when the first shortages result in dramatically higher prices. New controls would then likely be imposed to protect the consumer's interest in low, stable food prices, Stevens says.

"If a government policy of low and stable food prices for consumers is in place, there's reasonable justification for taxing consumers for these benefits. Costs of government programs in agriculture shouldn't necessarily be viewed as a transfer payment from taxpayer to farmer. Consumers have benefitted in the past through stable food prices," Stevens says.

Free single copies of the study, Staff Paper P86-31, are available from the Department of Agricultural and Applied Economics, University of Minnesota, St. Paul, MN 55108.

# # #

Aug. 28, 1986

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

## LOWER AUGERS TO PREVENT POSSIBLE ELECTROCUTION

Lower metal grain elevator augers before moving them because they could strike power lines and cause electrocution.

This reminder comes from the National Institute for Occupational Safety and Health (NIOSH) in time for National Farm Safety Week, Sept. 21-27, says John True, agricultural engineer with the University of Minnesota's Extension Service.

Each year, auger-electrical accidents happen, with usually one or more fatalities per accident. Last October, NIOSH recorded two accidents that took five lives and occurred within the same week only 150 miles apart. Neither of the incidents fell under OSHA jurisdiction because both farms were family operations employing fewer than 10 workers.

In the first instance, five farmworkers were moving a portable grain auger. It was raised to 35 feet at an angle of about 45 degrees so the top would clear a grain bin. The workers pulled the auger back from the bin, turned it and began pushing it to a new location. As they did, the auger contacted an electrical line about 25 feet above the ground. Two of the

Page 1 of 2

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workers were killed and three were injured.

The second accident was nearly a repeat of the first. Two farmworkers and the farm owner were moving a portable grain auger from a bin to another location. The auger was raised to 35 feet to clear the top of the bin. The workers pulled the auger back and swiveled it to push it to a truck that was to be loaded with grain. As they pushed the auger, it contacted a 7,200-volt line that was 25 feet above the ground. All three were electrocuted.

NIOSH recommends that manufacturers and users of grain augers affix signs on the equipment that warn users of potential hazards of moving the augers in an upright position. True says such signs should be placed on augers in a conspicuous location.

# # #

CEO,1,4,F,U

NAGR1547

Aug. 28, 1986

Source: Joan Nassauer  
612/624-7216  
Writer: John Colmey  
612/625-0223

## PUBLICATION OFFERS GUIDELINES FOR PRESERVING RURAL LANDSCAPES

At a time when more and more farmers are being replaced by non-farmers escaping the cement and noise of the city, the beauty of rural landscapes can be easily diminished by the rush to build and develop.

"Caring for the Countryside: A Guide to Seeing and Maintaining Rural Landscape Quality," by Joan Nassauer, a University of Minnesota landscape architect who does research for the university's Agricultural Experiment Station, gives rural planners and residents guidelines to manage rural development in ways that preserve the land's rural character.

"People take for granted the qualitative aspects, the aesthetic and ecological aspects, of the rural countryside," says Nassauer. "Changes in the landscape should support its basic characteristics. They must be a part of the larger unified pattern."

Nassauer's premise is that two basic qualities, meaning and composition, define rural landscapes. A farm pattern has a meaning, a reason for the lines and configurations it creates:

Page 1 of 2

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the pattern offers a visual impression, the feeling it leaves one with. The premise is compelling and insightful and that, in combination with the publication's photos and maps of historical transitions, assists the reader in seeing the countryside with a new understanding.

To obtain a copy of "Caring for the Countryside," (publication number AD-SB-3017), contact any of the county extension offices in Minnesota or send \$2.50 to the Distribution Center, 3 Coffey Hall, University of Minnesota, 1420 Eckles Ave., St. Paul, MN 55108. Checks should be made payable to the University of Minnesota.

# # #

BSS,CEO,1,3,4,7,C,L,S

NEXP1549

Aug. 28, 1986

Source: Jane P. McKinnon  
612/624-9290  
Editor: Sam Brungardt  
612/625-6797

## SEPTEMBER IS GOOD TIME TO PLANT SOME PERENNIALS

Peonies, bearded and Siberian iris, lilies and daylilies are best planted in September, after the state fair rains have made Minnesota a wonderful place for garden work, says Jane P. McKinnon, horticulturist with the University of Minnesota's Extension Service.

"Gasplant (Dictamnus) and Baptisia, which do not take kindly to being divided, can be bought in pots from garden centers," McKinnon says. "Garden centers also offer Astilbe, but you can divide any that you have growing in your yard. Use a sharp knife or spade to cut the clumps apart, then reset the divisions in an organic soil that can be kept moist during the blooming season in June."

Asiatic and Aurelian hybrid lilies can also be planted during the fall gardening season. McKinnon says, "Many of the finest lilies are bred, cultured and sold by Minnesota growers. These perishable bulbs can be put into your garden shortly after they are dug from nearby fields if you place an order now."

# # #

4,7,1

Page 1 of 1

NAGR1537

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Aug. 28, 1986

Source: Stanley C. Stevens  
612/625-8770  
Writer: Mary Kay O'Hearn  
612/625-2741

## POLITICAL DEVELOPMENTS COULD CAUSE A SEE-SAW IN FARM PRICES

Political developments in Washington, D.C., according to Stanley C. Stevens, will be the main source of new information affecting farm prices for 1986 grain crops. Stevens is marketing-economist with the University of Minnesota's Extension Service.

He thinks there is about a one-third chance that sometime next winter there will be a change in policy toward more aggressive supply controls. Perhaps something like another 1983 PIK (Payment in Kind) program which he says, "did get rid of surplus, but at heavy cost to taxpayers."

The best prices for the 1985 crop came in December 1985 and January and February 1986, he mentions. The \$1.75 and \$1.80 per bushel for corn didn't seem all that good at the time, but it proved to be later, a public stand Stevens had taken before prices trended lower in spring 1986.

The futures market, which some farmers use to attempt to hedge a better selling price, isn't for everyone, Stevens says.

Page 1 of 2

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"People get in and are soon behaving as if they were in Las Vegas instead of farming. It's easy to lose perspective and get in too deep."

It takes \$1.30 a bushel corn just to recover the cost of seed, chemical fertilizer and out-of-pocket expenses for someone not in debt, Stevens says. This price doesn't include any return to labor, the land or a cushion against the risk involved.

Stevens says that the current farm bill has failed to stimulate exports, and this has been a good growing season. Don Friedrich, Minnesota Agricultural Stabilization and Conservation Director, says the State Crop Reporting Service August forecast of 122-bushel corn is "as good crops as ever raised."

# # #

CEO,1,3,4,F

NAGR1551

Aug. 28, 1986

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

## FALL HOUSEPLANTS TIPS

Bring houseplants indoors from porches, patios and gardens as soon as night temperatures drop consistently into the low 60s, advises Deborah Brown, horticulturist with the University of Minnesota's Extension Service. "This eases the transition to indoors," she explains, "where night temperatures are unlikely to drop much lower."

Brown says houseplants should be washed thoroughly before they are brought indoors. This not only removes insects and eggs that might have found their way onto the plants, but also cleans the leaves, allowing them to gather light indoors more efficiently. This is particularly important, Brown says, as days grow shorter and less light is available.

"Plan to reduce both the amount of fertilizer you give your houseplants and the frequency with which you apply it," Brown advises. "As days become shorter, reduced light levels usually mean slower growth. Mix fertilizer solution half strength, then use it when your plants appear to be growing actively."

Brown says amaryllis should be brought indoors before frost. "Keep plants growing in a bright, sunny window or put them in a cool, dark basement and withhold water until all leaves become brown and dry," she advises. "After two or three months in the

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Page 1 of 2

basement, bulbs sometimes start growing again on their own. If not, you can bring them upstairs and water them thoroughly. New growth should begin shortly."

Christmas cactus will benefit from being kept outside until night temperatures fall into the low 40s or even the upper 30s. "Cool night temperatures cause flower buds to begin developing at the tips of the branches," Brown explains. "When you do bring Christmas cactus indoors, be sure to find a location that is bright during the day, but cool at night. This insures that buds will continue to expand and bloom eventually."

# # #

4,7,I

NAGR1511

Aug. 28, 1986

Source: Jane P. McKinnon  
612/624-9290  
Editor: Sam Brungardt  
612/625-6797

## DAFFODILS NEED TIME TO ROOT BEFORE SOIL BECOMES COLD

September is the beginning of the gardener's New Year. To have a succession of color from flowering bulbs next spring, planting must begin in September for daffodils and other kinds that need several weeks of warm soil to begin rooting, says Jane P. McKinnon, horticulturist with the University of Minnesota's Extension Service.

Daffodils should be planted at least a month before tulips, according to McKinnon. She says, "Trumpet daffodils are probably those most widely known in Minnesota. King Alfred is usually for sale at all garden centers and nurseries. Its stems are about 16 inches high and the bright golden trumpet flower is a favorite. Golden Harvest, another excellent golden yellow daffodil, usually blooms a little earlier than King Alfred. Spellbinder is another successful variety. It multiplies generously in a fertile, organic soil. Spellbinder has yellow petals that surround a trumpet that opens as a subtle greenish yellow and turns white as it matures. Mount Hood is a vigorous cultivar with ivory-white flowers. Mrs. R. O. Backhouse is the famous pink daffodil. It should be planted in partial shade to keep its deepest color."

Page 1 of 2

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McKinnon says that Minnesota gardeners are also finding the double daffodils showy additions to bulb plantings. Cheerfulness is white and yellow and Yellow Cheerfulness is all one color.

Rock gardeners may want to add Peeping Tom, Tete-a-Tete (a 5-inch-tall cultivar) and Jack Snipe (which grows 8 inches tall) to their plantings. Yellow Hoop Petticoat, only 6 inches tall, is classified as a miniature. "These small flowers appear very early, almost as soon as crocus," says McKinnon, "so don't plant them 100 feet away from your door, where you won't see their spring blooms."

East or south exposures, where spring sun warms the soil, are ideal for daffodils. They bloom at the same time as Northern Sun forsythia, Princess Kay plum and Allegheny serviceberry, Minnesota's tallest native Amelanchier. Nurserymen can supply any of these early spring-blooming shrubs and trees in containers for fall planting.

"Next May, a tree in bloom over an underplanting of daffodils, primroses, violets and creeping phlox, with a screen of golden forsythia as a background, will let you know that the gardening year has begun," McKinnon says. "Just don't plant your bulbs in a rock mulch; they won't know what happened to them."

# # #

Aug. 28, 1986

Source: Mary Darling  
612/624-6286  
Writer: Deedee Nagy  
612/625-0288

## CALCIUM-FORTIFIED FOODS WON'T NECESSARILY PREVENT OSTEOPOROSIS

Despite what some food and supplement manufacturers might want people to believe, adding calcium to the diet won't necessarily prevent osteoporosis, a disease of brittle bones that affects millions of middle-aged and elderly women and some men.

Mary Darling, nutritionist with the University of Minnesota's Extension Service, says calcium intake is only one factor that may determine who contracts the disease. General nutrition, weight-bearing exercise and estrogen for postmenopausal women all play a role in preventing osteoporosis. In addition, smoking or as few as two alcoholic drinks a day doubles a person's risk.

Darling says the current trend toward calcium-fortified foods includes some brands of soft drinks, bread, flour and some yogurts. Most are heavily advertised and labeled as having added calcium.

"Calcium-rich dairy products are an important part of a good diet at any age, but when it comes to preventing osteoporosis, they are most critical early in life," she adds. "Minerals accumulate in the bones after most people stop growing. So the

Page 1 of 3

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more dense the bones are by the age of 35, the more bone there will be for the years to follow. This means that it's especially important for children, teens and young adults to get adequate calcium in their diets."

Bones reach a peak for mineral density during early adulthood and then begin to lose minerals. A person's consumption of milk and other dairy products during the first 20 to 30 years of life is thought to contribute to bone density.

The issue is controversial, however. Darling reports that a University of Pittsburgh study measured the density of certain bones in middle-aged women. Researchers found that those who drank milk with every meal up to age 35 had more minerals in their bones than those who rarely drank it. But other studies, which took body size and ethnic background into account, showed no correlation between calcium intake and bone density.

Darling suggests that eating calcium-fortified products may be helpful for some people because the Recommended Daily Allowance (RDA) of 800 milligrams of calcium per day for adults is thought by some medical experts to be too low. Women may need 1,000 to 1,500 milligrams a day. However, when dairy products are replaced by calcium-fortified foods or food supplements, other important nutrients found in dairy foods such as protein,

vitamin D, riboflavin and vitamins B6 and B12 may be missing from the day's foods.

She recommends careful label reading for persons who choose to add calcium to their diets. Some powdered drink mixes, for example, supply 100 percent of the RDA for calcium, but two slices of calcium-fortified bread may supply only 10 percent of the RDA.

Darling adds that the calcium present in a cup of whole or skim milk can also be found in 6 ounces of plain yogurt, 1 1/3 ounces of cheese, 2 ounces of cheese food, 1 1/2 cups of soft or hard ice cream or 2 cups of cottage cheese.

# # #

4,7,H

NHEC1553

# news

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

August 28, 1986

Source: Ronald N. Nelson  
612/625-5288  
Writer: Jack Sperbeck  
612/625-4730

## MINNESOTA WILD RICE GROWERS FACE STIFF COMPETITION

Minnesota wild rice growers must continue to raise yields and cut production costs to remain competitive with California growers. But they also need the "financial and legislative support of both federal and state governments," according to a new report from the University of Minnesota's Agricultural Experiment Station.

Minnesota growers are expanding acreage, raising yields and improving existing acreage to lower production costs. "But other developments to improve the competitive position of the Minnesota industry are beyond the control of individual growers," say agricultural economists Ronald N. Nelson and Reynold P. Dahl.

These include:

- Development of an economically efficient way to kill volunteer seed.
- Development of higher yielding, disease resistant wild rice varieties.
- Labeling of necessary pesticides to control pest problems.
- Improved fertilizer management on Minnesota's organic soils.

Page 1 of 4

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--Increasing access to underdeveloped land to increase wild rice acreage.

"All of these activities require dedicated agricultural scientists, cooperating with the Minnesota wild rice industry," the economists say. "More importantly, these activities require the financial and legislative support of both federal and state governments."

Free single copies of the wild rice report are available from the Department of Agricultural and Applied Economics, University of Minnesota, St. Paul, MN 55108. Or, call Ron Nelson at 612/625-5288.

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(Agents/Editors: Following are other highlights from the wild rice report you may wish to use as separate shorter items, or as part of a longer story)

Processing Plants. There were 25 major wild rice processing plants in the U.S. and Canada in 1985. A shortage of processing capacity in California caused over one-third of the state's production to be shipped to Minnesota for processing last year. An additional seven processing plants could be built in Minnesota and California in a few years. Three are under construction in California.

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Wild rice production increased from 11 million unprocessed pounds in 1982 to 33.3 million in 1985, according to a new report issued by the University of Minnesota's Agricultural Experiment Station. Most of this growth was due to acreage and yield increases in California's Sacramento Valley, say agricultural economists Ronald N. Nelson and Reynold P. Dahl. During the same period Minnesota's production increases were moderate. In 1985, Minnesota produced 12.9 million unprocessed pounds of wild rice on 25,000 cultivated acres with yields of 470 unprocessed pounds per acre, while California produced 19 million unprocessed pounds on 15,400 acres with yields of 1,250 unprocessed pound per acre.

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The consumer demand for wild rice has been growing at a rapid rate with food manufacturers accounting for nearly two-thirds of 1985/86 sales of processed rice. But, some of the 1985 crop will not be sold so carryover in 1986 will be up. Wild rice prices declined in the 1985/86 marketing year, possibly ending a trend of stable prices since 1982.

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A comparison of Minnesota and California wild rice crop budgets shows that California production costs per acre are higher and wild rice prices are lower than in Minnesota. But

these disadvantages are offset by a large yield advantage and greater recovery yield of processed wild rice per pound of unprocessed wild rice in California. Therefore, California grower returns over cash costs are nearly \$400 per acre higher than net returns to Minnesota growers.

# # #

AEA,BSS,CEO,IAC,1,4,7,F,R,S

NAGR1559

Aug. 28, 1986

Source: Harold Cloud  
612/625-9733

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

## MANAGING IS ESSENTIAL IN GRAIN STORAGE CRUNCH

Ten percent of good crop storage depends on the building and 90 percent on how well farmers monitor and manage the grain in the storage.

That's a point Harold Cloud made to farmers in meetings in 30 Minnesota counties this summer where the topic was the shortage of grain storage facilities. Cloud, grain storage specialist and agricultural engineer with the University of Minnesota's Extension Service, says Minnesota's present shortfall of storage space may be as critical as he has seen in nearly 20 years of extension work.

He has heard of many nontraditional buildings being used for corn storage, and wheat and soybeans add to the problem. "It's going to be anything from dairy barns to turkey houses, potato storage bins, machine sheds, silos, (plastic-covered) bunker facilities, temporary plastic storage--to on the ground."

The grain storage meetings were held in response to the storage situation and farmer interest in learning how to monitor grain to keep it in good condition.

Page 1 of 3

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"We are going to have spoiled grain," Cloud says, "and some of it is spoiling in good facilities, even though management is more critical in makeshift storage than in conventional, well-designed facilities."

Dry storable corn should have only 14 percent or less moisture. Corn at 13 percent moisture needs well-managed aeration and protection from free water (rain and drainage); it can be stored for a long time, though as the time extends the potential for grain quality to drop increases.

If financing permitted, some farms could add storage, but farmers began booking bins early in the season and builders are now feeling the crunch. Cloud says temporary storage facilities can be put up at a cost of 12 to 30 cents per bushel while conventional storage costs 60 to 90 cents per bushel. There is enough conventional storage, but the problem is freeing it up for the new crop when the price isn't conducive to selling the grain already in storage.

Bumper crops are expected in southwestern Minnesota (except in Nobles, Pipestone and Rock counties, where hail struck in July), says Erlin Weness, extension area agent, farm management, in Worthington. Weness, who was on the program with Cloud, also believes storage will be "plenty short" while mentioning some grain elevators are building new facilities in anticipation.

Agriculture Secretary Richard Lyng's announcement to loosen restrictions on grain storage payments, move another 10 percent of the crop and allow grain storage on the ground to receive payments will ease the situation some.

Even vacant buildings on main street are being rented to store grain and many farmers have told Weness they have already found places to store the new crop.

"It isn't known how much of the existing storage space in the state is empty at the moment," says Don Friedrich, Minnesota Agricultural Stabilization and Conservation Service director.

"Some of the harvest will be chopped for silage and some of it sold and moved down river," he says. He's optimistic that though grain may be standing outside in piles for awhile "it will all be under roof by Jan. 1."

# # #

CEO,1,3,4

NAGR1550

Aug. 28, 1986

Source: Jeffrey D. Hahn  
612/624-4977

Editor: Sam Brungardt  
612/625-6797

## FALL FREEZES WILL FINISH OFF WASP COLONIES

As autumn approaches, the approach for controlling wasps needs to be modified, says Jeffrey Hahn, entomology educator with the Minnesota Extension Service.

He says, "During most of the summer when a wasp nest was found, it was treated with insecticides to destroy it and that was all the thought that was given to it. However, in the latter part of the summer, invasions inside homes by wasps are common, especially when control is attempted on colonies on the outside of buildings.

"As we get closer to our first hard freeze, it becomes less important to try to control wasp nests, especially at the risk of driving them inside. Most of the colony will die after the first hard frost, making insecticide applications unnecessary. Subsequent freezes will finish off any remaining workers. Only newly mated queens will survive the winter; they will escape the colony to find a sheltered place to stay for the winter."

# # #

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Page 1 of 1

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