Federal Disaster Assistance for 1994 Crops Proposed in Agricultural Appropriations Bill

A harsh winter that devastated peach trees, and a wet July that drowned out dry beans, sugar beets, and leached nitrogen away from corn and potatoes in Michigan, has prompted efforts by several Michigan congressmen to secure disaster assistance in Washington, D.C.

That aid may come in the form of an amendment offered by Sen. Carl Levin (D-Southfield) to provide for disaster funding in the Senate version of the agricultural appropriations bill. The House version of the agricultural appropriations bill did not include the disaster provision.

Rep. Dave Camp (R-Midland) is hopeful, however, that the disaster provisions will eventually be included in the final legislation reported out of the conference committee. Camp expects that to occur within the next couple of weeks.

"I think we'll finally see disaster funding which will include money for the flooding in the southeastern U.S., with some additional money made available for other disaster areas of the country, including Michigan," Camp explained.

"A bipartisan group of the Michigan delegation met with Ag Secretary Mike Espy to make him aware of the problems we've had in Michigan, not only from the heavy rains but the severe cold weather we had last winter."

The Michigan delegation, which included Reps. Camp, James Barcia (D-Bay City), Fred Upton (R-St. Joseph), Peter Hoekstra (R-Hollown), Rep. Joe Cooley (D-Flint), was successful in receiving Espy's support for a disaster provision in the agricultural appropriations bill, according to Camp.

Under terms of the proposed disaster provision, funding would be available in situations where more than 50 percent of the crop was lost. One sticking point that apparently has not been resolved, according to Camp, is whether the disaster legislation will also apply to non-program crops, i.e., peaches and dry beans.

"We did make the point that peach trees and many other types of trees were literally destroyed, and that a disaster program needs to..."

Continued on page 3...see Crop Disaster Funding

Ground Breaking Ceremonies Held for MSU Livestock Center

Heavy rains didn't keep the crowd of onlookers or the earth movers from breaking ground to start construction of the new MSU Agriculture and Livestock Education Center to replace the old Livestock Pavilion. The ceremonies were held during Ag Expo week activities at the future site of the center located on Farm Lane, near the Mt. Hope intersection.

The new Livestock Education Center is one of the first steps in the Michigan Animal Livestock Initiative that, according to Gov. John Engler, is putting production agriculture in Michigan front and center now and in the future.

And they're off! With a wave of the flags from MSU President Peter McPherson and Gov. John Engler, earth movers were put in motion to break ground for the new MSU Agriculture and Livestock Education Center.

"This state has made a commitment to renew its investment as we prepare for the next century, as evidenced by the $70 million that constitutes the animal agriculture initiative," Engler said.

Engler said research needs such as animal waste management, environmental protection, animal health, combined with responsible legislative and regulatory action, are critical to the future success of animal agriculture. We've made it very clear that you're not going to need a permit to farm in Michigan by strengthening Michigan's Right to Farm Law," he said.

"According to MSU Animal Sciences Department Chairperson Maynard Hoisberg, actual construction of the Livestock Education Center won't officially begin until early 1995 and will take 18 months to complete. The center will include a showing area, an exhibition area, and an auditorium that can be used for classes, auctions, and/or meetings."

Michigan Farm News Classifieds - Page 14
The study was conducted in 10 top corn-growing states and found that the 1 percent loss were blamed for 12 million bushels, and birds, 10 million bushels. Almost $92 million worth of corn was gobbled up by wildlife last year, according to a USDA report. That total represents about 1 percent of last year’s corn crop that was lost to just a few of the discrepancies in federal wetlands policies. For starters, the column’s headline for over 450 fifth grade students. The program’s sponsors include Elaine and her husband Larry, daughter Amy, and their son Shawn.

**Wildlife Prefer Corn**

The National Food Processors Association (NFPA) said a request by California activists to have the state track sales of BST to producers is “appalling.” The activists have asked the state to publish a list of producers that purchase the Food and Drug Administration approved bovine growth hormone. “BST is a safe and legal product; a list of who buys and uses it is useless information at best, and a dangerous invasion of privacy at worst,” said Juanita Duggan, NFPA’s senior vice president of government affairs.

**Calgene on a Roll**

Calgene Inc., the California based biotechnology firm that earlier this year introduced its new Flavr-Savr tomato, has requested to have its genetically engineered strain of Laurate approved by the Food and Drug Administration. Tolman writes that “draconian, command-and-control wetland regulations are no longer the best, and a dangerous invasion of privacy at worst,” said Juanita Duggan, NFPA’s senior vice president of government affairs.

**Wetlands: Call Off the Dogs!**

A recent Wall Street Journal article, entitled “Attack of the Wetlands Enforcers,” points out just a few of the discrepancies in federal wetlands policies. For starters, the column’s headline for over 450 fifth grade students. The program’s sponsors include Elaine and her husband Larry, daughter Amy, and their son Shawn.

The study was conducted in 10 top corn-growing states and found that the 1 percent loss were blamed for 12 million bushels, and birds, 10 million bushels. Almost $92 million worth of corn was gobbled up by wildlife last year, according to a USDA report. That total represents about 1 percent of last year’s corn crop that was lost to just a few of the discrepancies in federal wetlands policies. For starters, the column’s headline for over 450 fifth grade students. The program’s sponsors include Elaine and her husband Larry, daughter Amy, and their son Shawn.

**To be eligible, a student must:**

- Be a sophomore, junior or senior at MSU.
- Be enrolled in an undergraduate degree program in the department of Agricultural and Extension Education, Agricultural Economics, Animal Science, Crop and Soil Sciences, Horticulture, or Food Science and Human Nutrition.

To learn more and/or request a scholarship application before the application deadline of Sept. 1, call or write: Dr. Richard Gibson, 131 Agriculture Hall, Michigan State University, East Lansing, MI 48823, or phone: (517) 355-0234.
U.S. Department of Labor: Sweeps Planned

The U.S. Department of Labor and the Michigan Department of Labor, will be conducting enforcement sweeps in the state beginning this spring, said Tom Guthrie, Delton, who is responsible for prepping a slate of policy recommendations for voting delegate action at the Michigan Farm Bureau annual meeting in Detroit on November 28, 2000. During the months ahead, the Policy Development Committee will meet with various resource people, study issues, and correlate information. Guthrie is a member of the committee. The committee, which will be chaired by Tom Guthrie, Delton, is responsible for preparing a slate of policy recommendations for voting delegate action at the Michigan Farm Bureau annual meeting in Detroit on November 28, 2000.

Biosolid Application in Michigan in Jeopardy?

Farmers utilizing biosolids in their farm fertility program, may face changes in regulations as a result of a new federal 503 Rule administered by the Environmental Protection Agency (EPA). The new federal 503 Rule, sets criteria and standards for the safe, environmentally sound application of wastewater treatment residuals to farm fields. The EPA supports the rule and is encouraging states to adopt the new regulations.

According to Joan Peck of the Michigan Department of Natural Resources Waste Management Division, a multi-interest work group is being formed to determine what type of regulations will be imposed for the proposed biosolid land application program and how that program will be funded. The work group will consist of representatives from environmental groups, farm interests, municipalities and other individuals with an interest in Michigan's regulatory program.

The interim policy developed on the land application of biosolids would be in effect until a permanent, funded program that follows guidelines included in the EPA's 503 program is established. Currently, Michigan does not directly follow federal 503 regulations, instead a regulatory effort known as PERM (Plan for Effective Residuals Management) is administered by the Waste Management Division of the DNR.

FIFRA Mark-Up Begins in D.C.

The House Agriculture Subcommittee on Department Operations and Nutrition will mark up H.R. 1627 that would reauthorize the Federal Insecticide Fungicide and Rodenticide Act. The bill, according to the Congressional Monitor, would loosen current health-based limitations on the use of agriculture chemicals.

The subcommittee will work from an amendment offered by Rep. Charles Stenholm (D-Texas) that abolishes the Delaney Clause and would require the EPA to allow the use of pesticides as long as the health risk is negligible. Stenholm's amendment requires EPA to consider consumer benefits from pesticides when regulating chemical usage.

Crop Disaster Funding Sought

(Continued from page 1)

For Your Farming Needs

- Backhoes with specialty attachments
- All-terrain extendable and straight mast forklifts
- Farm material handlers

Call CRC today - Ask about our Specials! $100 Coupon

---

Workshops and Enforcement

Any employer who has a track record of similar, willful and recurring violations.

-A new focus will also be placed on Civil Money Penalties (CMPs) which can now be assessed on minimum wage violations and overtime violations.

- Enforcement officials will be looking at employers who have a track record of similar, willful and recurring violations. Farmers should take this notice seriously and continue to ensure that their workers are paid the correct wages and that proper documentation is maintained.

-CMPs have been assessed on minimum wage violations and overtime violations. If you are convicted and want answers directly from the officials themselves, the meetings have scheduled times and are highly recommended.

-Representatives from the Michigan Department of Labor and the U.S. Labor Department’s Wage and Hour Division will present a series of seminars on youth employment regulations during August. The seminars will focus on child labor laws and regulations changes which occur when school returns to session.

Child Labor Seminar Locations

Aug. 18 - Marquette
Aug. 24 - Kalamazoo
Aug. 25 - Flint
Aug. 31 - Grand Rapids

Creek: Marvin Kociba, Harbor Beach; Rick Johnson, Oscoda; Vic Daniels, Jr., Sterling; Gene Veliquette, Williamsburg; and David Medora, Rapid River.

Representing Farm Bureau Young Farmers are: Dan Steinbrecher, Iron Mountain; Yvonne Jakubik, Whittemore; and Kurt Inman, Sturgis.

At-large members are: Barbara Maitland, Williamsburg; David VandeBunte, Byron Center; and Virginia Zeib, Bath.

At-large members from the Michigan Farm Bureau Board of Directors, in addition to Guthrie, are Elane Haring, Manchester; and Joshua Wursch, Traverse City.
Much drier weather covered Michigan during late July, reversing the wetter than normal trend early in the month. In contrast to the past few growing seasons which were remembered largely in terms of temperature anomalies, this season so far has been characterized by both shortages and surpluses of precipitation (and near normal temperatures).

The recent drier weather across the state has been the result of predominantly northwesterly wind flow aloft, and the lack of moisture at low levels of the atmosphere from which showers and thunderstorms form. This is a similar pattern to the one which brought cool, dry weather back in May and June.

This pattern is expected to continue, at least for the next few weeks, with the National Weather Service (NWS) 30-day outlook for August calling for slightly cooler and drier than normal conditions.

In some sections of the state where rainfall has consistently been lighter than normal, this weather pattern could cause some problems with grain and pod fill.

The National Agricultural Statistics Service (NASS) of the Federal/State Michigan Agricultural Statistics Service, has released its second Agricultural Chemical Usage Fruits Summary publication.

The survey was funded by the U.S. Department of Agriculture's (USDA) Pesticide Data Program (PDP). The purpose of the PDP is to upgrade the reliability of pesticide use statistics and the quality of information on pesticide residues in food.

Data collection began in October 1993 and continued through December. This data series addresses the increased public interest in the use of agricultural chemicals and provides the means for government agencies to respond effectively to food safety and water quality issues.

There were six fruit crops in Michigan in 1993 which were targeted for data collection. These included: apples, blueberries, grapes, peaches, sweet cherries and tart cherries.

The most frequently used herbicide in apple, grape, peach and tart cherry orchards was Paraquat (Gramoxone). Paraquat was applied to 24 percent of the state's 54,500 acreage treated. Carbaryl (Sevin, Savit) use was limited. Malathion was the most used insecticide on grapes with 93 percent, 74 percent and 78 percent of their respective acres receiving treatment.

Mortality was the most often used fungicide on blueberries with 86 percent of the state's acreage receiving applications. Carbenyl (Sevin, Savit) was the most often used insecticide on grapes with 52 percent of the grape acreage receiving applications.

The most widely used fungicide in apple, blueberry, and peach orchards was Captan with 91 percent, 74 percent and 78 percent of their respective acres receiving treatment.

Sulfur was the most often used fungicide on sweet cherries with 94 percent of the respective acreage receiving treatment, and tart cherries with 88 percent of the acreage treated. Metalaxil was the most often used fungicide on grapes with 49 percent of the acreage treated.

Trade names are provided as an aid in reviewing pesticide data. NASS does not mean to imply use of any specific trade names or products.
Is There a Place for STS Soybeans in your Operation?

If so, you may want to reconsider your seed purchasing decision this fall — the 1995 growing season.

Does your stomach get tied up in knots when you see your soybean fields emerging? Does your mind churn over thoughts of weed control treatment? Are your soybeans showing any sign of stress or stunting, and is it actually able to metabolize the chemical? The STS gene does not, however, increase tolerance to any other soybean herbicide.

Thanks to a new soybean seed variety, known as STS, you might be able to avoid the annual agonizing process of postemergence weed control treatment. STS stands for Sulfonamide Tolerant Soybean. The STS gene, developed and released by DuPont, stands for sulfonylurea tolerant soybeans, according to DuPont Eastern Michigan Sales Representative Mark Varner.

When an STS soybean variety is used in combination with a sulfonylurea herbicide, such as Pinnacle, Classic, or the premix of Pinnacle and Classic known as Concert and Synergy, the soybean plant doesn’t show any sign of stress or stunting, and it is actually able to metabolize the chemical. The STS gene does not, however, increase tolerance to any other soybean herbicide.

Integrated Cropping Systems Plot
Tour in Huron County Aug. 25

The Innovative Farmers of Huron County, in cooperation with Michigan State University Extension - Huron County and the Huron County Soil Conservation District, will be sponsoring a tour of the two Integrated Cropping System plots on Thursday, Aug. 25.

The Integrated Cropping System plots are being developed to help farmers design tillage/production systems which address water environmental issues, reduce investment costs, improve soil health and are economically feasible.

The focus of this year’s tour is “Putting the Tour Together.” Tour participants will view the initial year’s plots and learn about specialized equipment needed to operate in high residue situations. In addition, discussions will be held on other changes that need to be considered when making the transition.

Four tillage systems are being used to produce sugar beans, dry beans and corn. These systems consist of fall plow, fall chisel, tran-till and zone-till systems. Corn was planted with different closings systems and coulter combinations which will be viewed. The equipment will also be on display.

Discussions will be held on handling of residue prior to planting, use of manure as a nutrient source and the use of cover crops.

The bag on the right is the redesigned STS bag being used by Dairyland Seed to distinguish between the new soybean seed and conventional soybeans. Producers attending the DuPont’s No-Till Neighbors Field Day at the Nobis Dairy Farm in Clinton County had a chance to see the new variety in the field.

Visual Response

Vigorous early plant growth
More winter hardy
More fibrous and extensive root system
Larger diameter stem
Wider, darker green leaves, fuller canopy
Fill row sooner
Earlier pollination
Heavier seed weight

Observation Timing (stage of growth)

Fall - first to fourth leaves unfolded
Spring - greenup and vigor
Spring - observation on plant stand
Fall - first to fourth leaves unfolded
Spring - emergence of inflorescence
Spring - from stem elongation
Spring - at completion of tillering
Spring - at completion of tillering
Spring - at flowering
At maturity

Yield Information Postemergence applications to Winter Wheat (1993)

33 total studies • 7.6 bushel per acre increase • 10.5% increase in yield
Return on ACA investment of $17.64 ($23/pcihectare)
ACA investment of $5/pcihectare • $17.64 P/pcihectare

Application Techniques/Procedures

Test results have shown that ACA can be applied to the soil or foliation of winter wheat. ACA can be broadcast incorporated into the soil using water or a fertilizer carrier as a carrier with or without a soil applied herbicide. The incorporation or movement of ACA into the soil profile can be by tillage, rainfall, or irrigation. We will be going over the ACA near the developing root system of the plant.

Foliar applications should be made prior to dormancy break when top dressing wheat. It is not recommended that ACA be applied with any postemergence herbicide or inokeed until further testing has been completed.

Methods of Application

ACA mixes easily with and fits into the following fertilizer programs:
Soil Applications
• Soil broadcast applied with liquid fertilizers
• Soil broadcast applied with dry blended fertilizers
• Soil broadcast applied (weed & feed herbicide/ fertilizer solution)

Foliar Applications
• Application can be made with liquid fertilizers

Other application methods:
• Soil applied broadcast with water as the carrier, with or without a herbicide
• To wheat foliation with water as the carrier

Contact your local Clean Crop Dealer or call 1-800-252-2700 for additional information on the ACA ADVANTAGE.
Michigan Farm News
August 15, 1994

Market Outlook...

DAIRY OUTLOOK

Larry G. Hamm, Dept. of Agricultural Economics, MSU

Generations have been fascinated by watching yo-yos in action. Most people do not much care why a yo-yo goes up and down. However, when dairy product markets get too yoyo-like, all those eating them - living through the dairy industry do more than watch. They suffer significant cash flow disruptions, product promotion and pricing interruptions, etc.

The dairy product markets are currently raising rapidly after falling dramatically earlier this summer. The wholesale price of cheese on the National Cheese Exchange dropped from $3.29 a pound (40-pound blocks) in mid-April to $1.18 in mid-June. Between mid-June and mid-July cheese prices "spun" back up to $1.27 a pound. The Minnesota-Wisconsin (M-W) price is dropping rapidly to reflect the production of good product

price. However, the July M-W will start back up again. Farm pay prices will stabilize and wait for new signals from the market.

Price volatility has been with the industry since 1988. But this summer’s product price swings are extreme. The dairy product markets and the M-W have experienced large swings before, but the impending rapid reversal in price direction is a first.

CATTLE

Strategy: As we analyze the July 1 released July 22 US Department of Agriculture, 13-State and M-W State Cattle-On-Feed Reports it shows we may have a reprieve this fall and early winter from the heavy numbers coming to market and slaughter. On the other hand, the mid-year Cattle Inventory Report shows the cattle sector in an expansion phase.

The 7-state report showed feed numbers down 4 percent from 1993, but up 3 percent from 2 years ago; the 13-state was down 5 percent and up 2 percent, respectively. Placements were down 16 percent and 12 percent in the 7-state and 13-state reports, respectively.

There were cattle that feedlots were purchasing during the bloodbath feedlot were taking in the April-June period. It is no surprise that placements were down significantly.

For the most part, these cattle that were feedlots were not being marketed fall and early winter. Marketing were up 1 percent and 2 percent in the 7-state and 13-state reports, respectively.

Strategy: This means we should be able to work back to $70 cattle fairly consistently this fall. If we have opportunities to forward price over $72 for fall delivery, we should consider it. October futures were over $70 the first of August, however the basis has been hard to count on at times this past year.

The July 1 Cattle Inventory Report showed total cattle and calves up 2 percent from last year. Both beef cows and beef heifer replacements were up 3 percent compared to 1993. These are the numbers support programs, there is nothing available to reduce dairy market volatility. The only question now is, "Will the market yo-yo stop at the top or will it spin into another downward cycle?"

Michigan Christmas Tree Survey Highlights

The first Michigan Rotational Christmas Tree Survey has been completed. There were 1,225 Christmas trees in the state in 1993, according to the Federal/State Michigan Agricultural Statistics Service.

To qualify as a producer, an operation had to have grown at least one acre of trees and have had intentions of selling them as Christmas trees.

There were 1,225 Christmas tree operations identified by the survey, and 28 Michigan growers had 500 or more acres. Two hundred thirty (130) operations reported at least 100 acres and accounted for over two-thirds of the state's production.

Westford, Missaukee, Oceana, Montcalm, Kalkaska and Allegan were the six top counties, in acreage, respectively and acres. For 50 percent of Michigan's acreage.

Accurate Christmas tree acreage in Michigan.

White Spruce, Fraser Fir, Balsam Fir and Pine made up the majority of other species raised in the state.

A complete set of tables detailing Michigan's most recent Christmas tree survey will be published in a bulletin to be released this fall.

A copy will be sent to all growers. It is available to others upon request from the Michigan Agricultural Statistics Service, P.O. Box 20008, Lansing, MI 48901-0008.
A good way to score your performance as a manager is to compare your farm production with what your neighbors did. How does your dairy farm compare to the competition in Michigan?

The following tables show average factors for specialized dairy farms throughout the state. Telfarm participants are not necessarily representative of all Michigan dairy farms.

They do represent those who desire an excellent record keeping system plus assistance in records and financial management from Extension. Typically, Telfarmers operate larger than average farms. Telfarm is a record keeping system sponsored by Michigan State University Extension. Farmers pay a fee for using it.

Table 1 compares 1993 dairy farm results with those from 1992. Net farm income, management income and return to capital are subtracted. The resulting profit measure operators "earned" for their labor and management income and return to capital.

With Table 2, the farmer can compare his farm results with those from 1992. Net farm income, management income and return to capital are subtracted. The resulting profit measure operators "earned" for their labor and management income and return to capital.

The second and third lines of Table 2 show that as herd size gets larger, the milk sold per cow gets larger. And, the net income from farm operations is the highest per farm on the largest farms. As the herd size got larger in 1993, the cost per cwt. of milk got smaller. On Michigan Telfarms, the bigger herds tend to sell more milk per cow and have lower milk production costs per cwt.

The last four lines of Table 2 result from allocating all income and costs between the animal (livestock) side or the crops side of the farm. Feed is sold from the crops to the animal side.

All unpaid family labor was charged in at $5.50 per hour. Interest on all capital was subtracted. The resulting profit measure was called labor income. It is what the farm operators "earned" for their labor and management.

Egg Market Report

Henry Larzarella, Dept. of Agricultural Economics, MSU

Egg prices in the latter part of July were about the same as a year ago. However, for the first time in a year, feed ingredient costs per dozen eggs were below a year earlier. July feed costs this year were $2.50 per cwt. of milk, a major reason for the unusually high jump was caused by higher feed costs. More dollars were spent on feed purchases per cow. More tonnage of feed was transferred from the farm's cropping program into the dairy enterprise during 1993.

Crop yields were slightly better in 1993 than in 1992 for the main feed crops. Yields of corn and hay increased during 1993, but corn silage tonnage was slightly lower by the end of the year.

Table 2 shows how herd size is associated with profitability. The 170 farms from 1993 were divided into four size groups, and each group was averaged.

The group with 100 to 150 cows has the highest production per cow. More tonnage of feed was transferred to the mid to upper 70s. Crop yields were slightly better in 1993 than in 1992 for the main feed crops. Yields of corn and hay increased during 1993, but corn silage tonnage was slightly lower by the end of the year.

When put on a per cow basis, the middle size farms had an advantage. The smallest and largest seemed to have the higher live-stock costs per milk cow. However, the labor income per cow appeared to be lower.

On the cropping side, the advantage in 1993 was with the smaller herds. The smaller the herd was, the lower the crop costs per acre were, and the higher the labor income. For several years, dairy Telfarm reports have indicated that the cow side of the farm tended to make more than enough profit to offset the losses on the crops side of the farm.

But, it's only been in recent years that the small herds have kept their per acre crop costs lower than the big herds. As this summer winds down, drag out your 1993 record summaries and see how you compare to the above averages. Are your cropping operations dragging down your profits? If so, what can you do about it now and for 1995?

For a more complete report on the four size groups mentioned in Table 2, contact the author for Agricultural Economics Report No. 578 titled "Business Analysis Summary for Specialized Michigan Dairy Farms, 1993 Telfarm Data."
8 Practice Safe Livestock Handling

A recent study shows that animals are involved in 17 percent of all farm injuries—a figure equal to the number of accidents involving farm machinery. It’s important for farmers and farm workers to be on constant guard when working with or around animals.

Good housekeeping practices and respect for animals play major roles in reducing hazards and risks to both humans and animals. Clutter, messes, and disrepair often set the stage for accidents and contribute to the seriousness of many injuries.

Taking simple precautions may cost a little extra time, but removing or reducing hazards, with sick or injured animals, or suffering, property, resources, and lives can ultimately save time, pain and expense, repair, and clean.

Here are some general livestock handling observations and rules:

☐ Avoid loud noises and quick movements.
☐ Be patient. Never prod an animal when it has no place to go.

Newborn animals are high potential of being dangerous.

Most animals are highly protective of their young. Be especially careful around newborn animals.

Male animals should be considered potentially dangerous at all times. Proper equipment and facilities are necessary to assure safety.

The size, mass, strength, and speed of animals and herds of animals should never be taken lightly. Animals will defend their territory.

Always provide an escape route—especially when working in close quarters, with sick or injured animals, or under adverse conditions such as stormy weather.

Exercise extra care around strange animals.

Take extra care if strangers must be around your animals.

Keep equipment and facilities in good repair, and clean.

Fresh Silage Can Contain a Deadly Threat to Your Health

Farmers who will be handling corn for silage need to be mindful of the danger of nitrogen dioxide—silo gas—which can accumulate in the silo.

Exposure to silo gas can cause permanent injury or death.

"The highest concentrations of nitrogen oxides usually occur 48 hours after the silo is filled, but no one should go into a silo for four to six weeks after filling," says Howard J. Doss, Michigan State University Extension agricultural safety specialist.

Nitrogen dioxide is heavier than air, so it may form yellowish layers of mist above the silage or drop down the silo chute. The strong silage odor can mask nitrogen dioxide’s bleach-like odor. It may be present even if you can’t see or smell it, however.

When silo gas is highly concentrated, it can kill a person in a matter of seconds, along with anyone who attempts a rescue.

In low concentrations, silo gas damages the respiratory system when nitrogen dioxide combines with moisture in the lungs to form nitric acid. This acid can severely and permanently damage respiratory tract tissue.

The effects include severe irritation that may lead to inflammation of the lungs, though the victim may feel little pain or discomfort. Exposure symptoms—shortness of breath, a faint feeling and flu-like illness—can frequently be delayed for several days.

"A person may inhale silo gas for a short time and notice no effects," Doss says. "But he or she may go to bed several hours later and die while sleeping because of the fluid that has collected in the lungs."

Frequently, a relapse with symptoms similar to those of flu or pneumonia occurs one to two weeks after initial recovery from the exposure.

"The majority of people who develop initial silo gas exposure symptoms could also develop secondary ailments," Doss says. "For this reason, it is extremely important that anyone exposed to silo gas seek medical attention, regardless of the degree of these symptoms."

Calendar of Events


Aug. 23, Saginaw Valley Research Farm Field Day, Saginaw Valley Bean and Beet Research Farm, 9:30 - noon. Call Don Christenson, (517) 353-4594.

Oct. 8 - 9, Great Lakes American Ostrich Association Annual Seminar, Radison Plaza in Kalamazoo. Call Barb Smith at (517) 732-2514 or Rick Borup at (616) 642-9134.

Nov. 28 - Dec. 1, MFB annual meeting, Westin Hotel, Detroit.

Mail or FAX information (include contact name and phone number) three weeks in advance to:

Michigan Farm News
P.O. Box 30960
Lansing, MI 48909-8460
FAX: (517) 322-6793
AgrAbility Project Helping Farmers with Disabilities

by: Deb Laurell

Are you suffering from a disability or know someone who is that could benefit from some farm and equipment modifications? If so the AgrAbility Project could help.

The Michigan AgrAbility Project is a partnership between the Extension Service and the Easter Seal Society that's designed to help farmers with disabilities to continue working on the farm safely and more effectively.

According to Michigan AgrAbility Project Director Karen Delboque, anyone involved in any type of agriculturally related profession can take advantage of the program's services.

Delboque explains that the disability does not have to be a farm-related injury and it does not have to be recent.

AgrAbility has assisted people with spinal cord injuries, heart disease, traumatic amputation, diabetes, asthma, vision and hearing loss, carpal tunnel, post-polio syndrome, and a variety of other conditions. Services are available at no cost to the farmer and the immediate family involved in work on the farm.

However, the program cannot help with legal aid, prescription, medication costs or anything not related to assistance with performing job-related tasks, but if someone is in doubt about whether they qualify for services, they are encouraged to call.

"Even if it is something that isn't covered through our program, we may be able to make a referral to another agency or find some answers," says Delboque.

The program has grown significantly since its start. Currently, 78 farm families are being served. According to Delboque, with financial assistance from the Michigan Farm Bureau in excess of $40,000 and other agrichnesses, specialized tractor seats, hand controls, talking watches, tractor step extensions and other equipment and devices have been provided to farmers with disabilities.

"Our goal is to help farmers continue working safely and productively through education.

Silage Gas Dangers

Silo gas begins to form almost as soon as silo filling begins.

"It is most likely to develop one to three days after the silage has been made," Doss says.

"If a mechanical breakdown occurs or the filter pip plugs, the problem should be corrected immediately. Waiting overnight to do the task adds the risk of silo gas buildup in the silo.

"If there is a dire need to enter the silo, wear a self-contained breathing apparatus," Doss warns. "Wearing anything less could be deadly to anyone inside the silo during the procedures.

"Locating a suitable unit may be frustrating and may take some time, but it is far better to locate one at the farm and may take some time, but it is far better to locate one at the farm than to attempt to enter the silo without a self-contained breathing apparatus when entering the silo within the first four to six weeks after filling.

"When entering the silo after that recommended waiting period, be sure to ventilate the silo chute for 10 to 15 minutes beforehand and open several hatches to move out any pockets of gas.

No one should work alone in a silo. Always work in pairs so someone can go for help in an emergency. Remember that employees must follow Michigan Department of Public Health regulations for entering a confined space.
Have You Been Scouting your Corn Fields Recently?

Michigan Farm Bureau Launches "Aspen Lodge Campaign" Fund-Raising Effort for Kettunen Center's Vision 2021

In 1961, Michigan Farm Bureau conducted a $5,000 fund-raising campaign to raise $25,000 for building the Aspen Lodge dormitory at the Kettunen Center. The facility, now known as the Kettunen Center, has been used as a 4-H adult and youth leader training facility for nearly 30,000 4-H volunteers.

Now, 33 years later, $150,000 is required to renovate the Aspen Lodge dormitory, as a part of the Michigan 4-H Foundation's Vision 2021: The Master Plan for Kettunen Center. The overall Kettunen Center expansion and renovation is expected to eventually total nearly $3.8 million.

The MFB Board of Directors recently voted to continue the organization's tradition of supporting the Kettunen Center, by giving their approval to proceed with the $150,000 fund raising campaign for the Aspen Lodge renovation, according to MFB President Jack Laurie.

"For Michigan Farm Bureau, this was a natural project to undertake, based on the organization's long association with the Kettunen Center, Michigan State University, and the 4-H youth programs," said Laurie. "Representatives from county Farm Bureaus have been tremendous upon learning of the fund-raising campaign, with over $27,000 in donations already received."

Caldraon County Farm Bureau has donated $6,000, while Berrien, Ottawa, Genesee, and Saginaw counties have donated $5,000 each. Other county Farm Bureau contributors include Arenac, Gladwin, Iosco, Lenawee, and Presque Isle.

Individual Farm Bureau members are also encouraged to contribute, if they so desire, by either filling out and mailing back the coupon (see below) or by attending the "Campaign Kick Off Dinner" at the MSU Kellogg Center, on Sept. 14.

Roger McCoy, news anchor for TV-10, Lansing, will serve as master of ceremonies for the evening. An auction will also be a part of the evening's activities. A special pledge contributor's reception will be held prior to the dinner for individuals making a three to five year pledge of $450 or more. Tickets for the Kick Off Dinner are $75/single or $100 per couple, $50 of which is considered a pledge toward the total contribution to the Michigan 4-H Foundation.

Individual contributions can be made payable through a five-year pledge to the Michigan 4-H Foundation. Once the pledges are received, the 4-H Foundation will be responsible for pledge reminders and acknowledgements, which will also serve as official receipts for tax purposes.

Various levels of recognition have also been established to recognize donations in the following categories:

- S250 Contribution - An inscribed paving brick, with the donor's name will be used in the Kettunen Center's Conference Center Court.
- MFB Donor's Club ($450) - Attend the reception at the Kick Off Dinner and two inscribed paving bricks.
- S1,000 Contribution - The donor's name will be inscribed on a plaque in the Aspen Lodge.
- S2,500 Contribution - The donor's name will be inscribed on "a Learning Center Station.
- S5,000 Contribution - The donor's name will be inscribed on a room in the Aspen Lodge.

If you have any questions regarding the Michigan Farm Bureau Aspen Lodge Campaign, or the Kick Off dinner on Sept. 14, contact your local county Farm Bureau office, or the Michigan Farm Bureau Information Hotline at (517) 323-7000, extension 6586.
Wrapping Up Compliance Plans

Latest Stats Show 92 Percent of Plans were on Schedule as of 1993.

The U.S. Department of Agriculture Soil Conservation Service (SCS) status review shows 92 percent of conservation plans for highly erodible croplands are on schedule with 50 percent complete as of 1993.

SCS says the statistically reliable status review sample came from onsite reviews of 53,000 conservation plans covering 8 million acres.

Fosters Win National Cattlemen’s Environment Award

"Seldom Rest" Farms, owned and operated by Bruce and Scott Foster of Niles, Mich., has won the National Cattlemen’s Association Region I Environmental Stewardship Award (USA).

The Fosters have a registered, purebred, Angus cow-calf herd and raise Holstein heifers for use and sale as embryo transfer recipients and dairy replacements. In addition to the cattle business, they also raise corn, soybeans, alfalfa hay, wheat, sweet corn and fruit. Brothers Bruce and Scott are the fourth of five generations to live on, and be stewards of the land.

The farms, owned by the family, are located in Berrien and Cass counties in extreme Southwestern Michigan. In these counties of moderate climate, the topography is mostly gently sloping moraines and till plains, with flat to nearly level lake plains and outwash plains. The texture of the soil is predominantly sandy loam and clay loam.

The Fosters’ stewardship program accomplishments in the energy conservation area include using no-till and minimum tillage practices, selling corn to ethanol manufacturers and using ethanol in some vehicles.

Statistically Speaking...Modern Farming is Saving Wildlife Habitat

Worldwide attention has been focused on the disappearance of wildlife habitat. From the South American rain forest to areas closer to home, public perception is that modern, production agriculture is part of the problem.

The facts, however, are quite the opposite. A look at the advances in agriculture—which include the use of commercial nutrients—shows that modern farm practices are saving wildlife habitat by increasing food production using less land.

A Utah State University study of 7,300 farmers found that more than half (51 percent) of producers surveyed look for ways to provide habitat for wildlife. The study estimates that U.S. farmers spend 25 million hours and over $300 million annually to benefit wildlife.

U.S. farmers cultivate about 341 million acres. If they used production techniques from 1950, growing the same amount of food would require an additional 393 million acres. This land would be unsuitable for wildlife and would be subject to erosion and water degradation.

Fosters have made great progress in reducing soil erosion, he says.

"The public wants good land stewardship," says Avery. "Just as other businesses have had to change the way they operate to protect the environment, agriculture has also accepted the challenge."

Midland County Farm Tour Planned for August 30

Minimum and no-till planting, cover crops, and post-emergence weed control are the featured topics during a crop tour at the Jerry and Pearl Wirbel farm, in Midland county, located 5.1 miles north of US 10 on Stark Road. The tour starts at 10 a.m. on Tues., Aug. 30.

Visitors will see cover crop studies in black tartle beans and corn, cover crop use in sugar beets, post-emergence grass control in sugar beets, and total post-emergence weed control in no-till soybeans and dry beans. No-till equipment will also be on display.

A Kentucky Fried Chicken lunch follows the two-hour tour. Lunch reservations and additional information is available through the Saginaw Soil Conservation District.

The Foster family is well known for its promotion of beef and agriculture in the farm and non-farm communities alike.

The Fosters say, "We feel it is essential to be very good stewards of the land in this "growing" area of cattle, crops and people. When we practice natural resource stewardship and management, we enhance productivity and profitability.

Proven Farm Tough

Choose from a wide range of standard or custom Lester wood frame buildings. Each features advanced Uni-Fram® engineering, top quality materials, and industry-leading warranty. Call your local Lester Builder or 1-800-626-4463 today.

Lester Building Systems
A Division of Butler Manufacturing Company
Quality Since 1901

Call the Lester Builder nearest you for your next building project.

Almont
T & W Construction, Inc.
(517) 278-6067
Coldwater
Cole Construction Co.
(269) 790-8331
Kalamazoo
Deliot Construction, Inc.
(616) 375-5942
Lake Odessa
Tri-County Fab & Construction
(619) 817-0789
Newport
A's Implements
(517) 586-9029
Saginaw
Cianek Construction Co.
(517) 770-4910
Sears
Carroll Equip. Sales, Inc.
(517) 362-6659
West Branch
Miller Construction & Equip.
(517) 345-2499
Based on complaints of environmental contamination of waterfowl in the Central Valley of California, the Food and Drug Administration (FDA) was prepared to roll back the legal level of selenium (Se) that could be fed to livestock to pre-1987 levels, effective on Sept. 1, 1994. However, agricultural appropriation bills, passed by both houses of Congress, would delay implementation until Sept. 30, 1995, by prohibiting enforcement. The delay is, in large part, to a report issued by the Council on Agricultural Sciences and Technology, that criticized the FDA proposal to reduce selenium levels to 0.1 parts per million. The FDA action was taken without regard for geographic variation in soil selenium levels or livestock response to supplementation, according to MFB Commodity Specialist Kevin Kirk. The ruling was originally supposed to effect in September 1993.

Soils in the entire Great Lakes basin are selenium deficient and many producers and veterinarians in this area remember the problems we used to have with white muscle disease, retained placentas, poor reproductive performance, and reduced disease resistance. "While 0.1 ppm Se may meet minimal requirements, it is unlikely to support the levels of growth, milk production and disease resistance desirable in modern production units," Kirk predicted. "We could see selenium responsive disease again and have no long-term method to prevent it." The appropriation bills must be signed before the implementation delay becomes official, says Kirk. If the delay does become official, producers may want to check with their feed suppliers to be sure the feed they're using still contain the higher levels of selenium.

For further information, contact Dr. Paul Coe (517) 353-9718, College of Veterinary Medicine, Michigan State University, East Lansing, MI 48824-1314.

Governor Appoints Green, Stoneman, and Wilbur to Michigan Beef Industry Commission

Gov. Engler has made three appointments to the Michigan Beef Industry Commission. They are Clarence Wilbur of Oscottagon, Karen Stoneman of Breckenridge and Velmar Green of Elsie.

The Commission administers the beef checkoff program, which is designed to improve profitability by strengthening beef's position in the marketplace and by expanding consumer demand for beef. The beef checkoff funds programs in the areas of promotion, consumer information, industry information, foreign marketing and research on both the state and national levels.

Clarence Wilbur is representing the cattle growers and is replacing Gordon Andrews of Sault Ste. Marie, who retired after 21 years service to the beef industry. Wilbur attended Cornell and received his bachelor's degree in Animal Science from Montana State University. He and his wife, Margo, operate a 2,000 acre cattle operation in the Upperman Peninsula.

Karen Stoneman, treasurer of the Michigan Beef Industry Commission and a cattle feeder, was reappointed. She is a partner in a 2,000 acre beef farm in Gratiot County. Stoneman co-hosts the agricultural television program "Farm & Garden." She earned a bachelor of science degree in Agriculture and Natural Resources from Michigan State University and is a Michigan Farm Bureau member.

Velmar Green, a dairy farmer and cattleman, has been reappointed to the board to represent the dairy producers. He earned a bachelor of science degree from Michigan State University. He is treasurer of Green Meadows Farms, Inc. and the Michigan Milk Producers Association. Green is a Michigan State Police suspect a theft ring is hitting horse barns and stables throughout Michigan. The target: saddles and tack.

To respond to this growing problem, Farm Bureau Insurance is offering a $5,000 reward for information leading to the arrest and conviction of the persons responsible for the thefts.

"This is a serious threat to Michigan horse owners," said Bill Monville, director of property claims for Farm Bureau Insurance. "We hope the $5,000 reward will help put a stop to the thefts. A lot of rural communities will breathe easier when these thieves are caught."

Thieves' targeting horse barns:

In response to this growing problem, Farm Bureau Insurance is offering a $5,000 reward for information leading to the arrest and conviction of the persons responsible for the thefts.

"This is a serious threat to Michigan horse owners," says Bill Monville, director of property claims for Farm Bureau Insurance. "We hope the $5,000 reward will help put a stop to the thefts. A lot of rural communities will breathe easier when these thieves are caught."

Thieves' targeting horse barns:

In response to this growing problem, Farm Bureau Insurance is offering a $5,000 reward for information leading to the arrest and conviction of the persons responsible for the thefts.

"This is a serious threat to Michigan horse owners," says Bill Monville, director of property claims for Farm Bureau Insurance. "We hope the $5,000 reward will help put a stop to the thefts. A lot of rural communities will breathe easier when these thieves are caught."

Thieves reported in at least 14 counties already account for more than $340,000 of stolen saddles and tack across the state, Monville said.

According to Detective Sgt. Palmer, who is coordinating the saddle theft investigation for the Michigan State Police, the targeted areas are the Thumb, central and southwestern Michigan. However, saddles are being reported stolen for as west as Kent and Kalamazoo counties, Palmer said.

Farm Bureau Insurance, The Watchful Horse Owners Association based in South Lyon, and local law enforcement agencies are working with the State Police to stop the thefts.

Anyone with information about the thefts is asked to contact Detective Sgt. Palmer of the Michigan State Police at (517) 782-0464. The reward money posted by Farm Bureau Insurance will be awarded after the arrest and convictions.
Interpreting the 1994 MSU State Wheat Variety Trial Results

Rick Ward and Larry Copeland, Department of Crop and Soil Sciences, Michigan State University.

Wheat variety performance trials are conducted by Michigan State University (MSU) each year at several locations throughout Michigan's winter wheat production area. Entrants to the trials include MSU experimental lines, promising lines from neighboring states and commercial varieties from other universities and private seed companies.

The primary objective of this testing program is to provide the agronomic data needed to determine which lines to release as commercial varieties. A second objective is to show Michigan wheat growers which varieties perform best in Michigan. This year’s results are summarized in the table below.

Although wheat producers are always interested in how varieties perform in a given year and location, performance in one given year and location should never be used to select a variety to plant. It is important to select to varieties on the basis of at least three years or more of data. Varieties selected with such comparisons are more likely to perform well under a wide range of growing conditions.

Each line in the table has data for a single variety. The information in parentheses beneath the variety name indicates the origin of the variety (company, state, or institution). The column labeled by double lines has this year’s average yield.

The table is arranged so that the varieties are listed in order of 94 yield average, with the highest yielding variety first and the lowest yielding variety last. To the left of the yield and yield averages for individual years (89-93).

Not all varieties have been tested in all years, so the table has several blank cells. To the right of the ‘94 yield column are multi-year yield averages. Only data for varieties included in the relevant year’s tests are included here. See the section titled ‘Experimental’ for details on how the trials were conducted and more detail on what each column’s data represent.

At the bottom of the table is information on how many county sites were used in the average for each column. Means, LSDs, and CVs are included for several data columns.

The LSD (least significant difference) is the smallest difference in yield which has to be considered real. The CV (coefficient of variation) is indicative of the precision a trial is. Lower CV values indicate more precise trials.

In any given year, or at any given site, several varieties will usually fall into the group of the "highest yielding" varieties. The composition of that group, and the identity of the absolute "winner" can, and does, change from location to location and year to year.

This means that the single best variety cannot be determined in advance for a specific site. You can, however, identify a group of varieties with past performance and agronomic characteristics that are most likely to be winners for the following season.

It is always a good idea to plant two or more varieties. That increases the chance of having the best adapted variety for the particular conditions that are likely to prevail during the ensuing season. Selecting two varieties can reduce losses from diseases and insects that occur when a single variety’s pest resistance is overcome by a change in the pest population.

The LSD (least significant difference) is the smallest difference in yield which needs to be considered real. The CV (coefficient of variation) is indicative of the precision a trial is. Lower CV values indicate more precise trials.

Data for all commercial wheats entered into the trials are reported here. Data for some MSU lines are omitted to reduce the table’s size. Means at the bottom of each column are listed ‘experimental’ to distinguish them from data calculated using the entire area of the plot including the wheel tracks between plots. Test weights are estimated using one pint samples for each harvested plot. Yield comparisons are only valid within a column.

Data abbreviations are: PM—powdery mildew, BSV—brown spot, DS—damping off, and LR—leaf rust. All scores are based on a 0-9 scale, where 0 is the best possible score.

Data for 50 percent pollen shed indicate the number of days past January 1 before that variety reached the point where 1/2 of its kernels had reached a stage at which pollen is shed. This is calculated as differences in harvest date. Plant height was measured as the tip of average heads in a plot.

MSU makes no endorsement of any wheat variety or brand. Cooperator support is gratefully acknowledged.

House Ag Committee Finalizes Crop Insurance Reform Measures

The House Agriculture Committee finalized action on the 1994 Crop Insurance Reform legislation, which is expected to be among the Crop Insurance Division manager of the Great Lakes Division of Rain and Hail Insurance Service, Inc., of Bloomington, Ill.

The reformed crop insurance legislation will merge the past ad hoc crop insurance disaster payments program, which was activated following the 1990 flood, into a single program. The new program will provide crop growers with individualized protection at reduced cost since the bill becomes law. The new program is expected to become law in August.

Michigan Farm News

August 15, 1994
14 Michigan Farm News Classifieds

Farm Machinery

RESSEN: 2 row bent harnasers, Field ready! Call 1-616-575-0549 evenings after 8pm.

IRRIGATION SYSTEM for sale, 2.5" aluminum pipe, covers 5 acres. Gorman-Rupp PT-100 pump, Asking $500. Call 1-517-797-9945.


JOHN DEERE 2140 tractor, 2000 hours, factory cab, air, front weights. Excellent condition! $12,000. Call 1-517-223-7240.

1994 FORD F-600 with grain cart, 300,654 miles only. Runs good! $1500. Call 1-517-276-5184.

1986 FORD TANDEM dump truck, 291,940 miles, 8-speed, low miles, excellent condition. Air brakes, upgraded with magma, $4,000 or best offer. 1-616-866-7464.


TWO KASTEN FORAGE wagons for sale. Eight ton. 6,500.00, drop deck. $5,000 or best offer. Call 1-616-527-2957 after 7pm.

ATTENTION POTATO Farmers. For sale, Ag-Tec 30-04 air blast sprayer. John Deere 4000 tractor with cab, dustel and dust mains. 10' 300 gallon tanks. Call 1-616-754-6606.

FEED GRINDER: New Holland 360, hydrolastic, GOOD condition! $2500. Call 1-517-915-9100 between 10am-1pm.

FOR SALE: 2 row narrow sidetine head for 892 NH or 900 Header. Excellent condition, with everything you need. $600. Call 1-616-358-3755. Eastgate. $2,500 or best offer. Call 1-616-527-2957 after 7pm.

1966 JOHN DEERE 4130 tractor. Completely rebuilt. All new interior. Owner has approximately $1000.00 in new and extra parts that will be included. $6500. Contact Sue Kostal, 1-517-875-4141 Ext 4110. Owner also has 1985 HOLLAND 225, 1-517-875-4903 home.


MANSFIELD FURGASON draws narrow corn head for sale. M-1141. Call 1-517-567-4305 evenings, after 8pm preferred.

NEW AND USED IRIGATION and manure spreading equipment. Pumps, travelizers, agators, PVC and aluminum pipe. Call for listing. We deliver! Summer Supply, Inc. 1-800-532-7791.

RAIN CONTROL, Monura, drip and sprinkler irrigation systems. New and used available. For free product catalog, contact us at 1-517-276-5226.

Firth, 1-517-660-6153. Adlian, MI.

USED VALLEY CENTER pivots, bar ends, B's, parts and related equipment. Call any time, toll free.

1-800-284-8589

WHITE DIESEL 2-700 1500 hours, $6500. MF 17'disc grain drill, like new, $1100. 6-new piece, 41 units, 1000. Miller 6-row fertilizer, 1100. Five-Tine V-Failer, 1100. Cultivator, 6-row, $250. 1-517-777-9755.

1992 Livestock Equipment

300 GALLON stainless steel milk tank and compressor motors. Excellent condition! Call 1-517-962-5302.


SUNSET 1000 gallon bulk tanks with compressors and washer for sale. $3600. Call 1-517-787-6899.


03 Farm Commodities

ALFALFA: Top quality! 800 bales, first cutting. $2. Later cuttings available. Hay is stored in Ottawa County, MI. 1-800-292-2680, ext. 2015

HAY/STRAW: Truck anywhere! 45 years of Grass! Call John Rupp, 1-517-765-0241 or 1-517-765-8971. Waldron, MI.


BORDNER ANGUS FARMS. Collie Stock Dogs. Call today.

BARBAY GUARD ANGUS FARMS. Scottish Highland Cattle. 1-216-325-3456.


BILLY WOOL, 900, 6 cylinder, 5-speed, two front weights. Excellent condition! $2500. Call 1-517-875-4181 work, 1-708-541-4888 after hours.

FOR SALE: Registered period half-hybrid breeding age bulls, cows, cows, Rocky Banner. Bulls. MSU performance tested. Call Eye Hexford Farm, 1-734-703-4005.


HEROLD BEEF BULL for sale. (Young). Call 1-517-382-6170.

LAMMAS: Pat males. Halter trained! Also available wooring and adult female breeding stock. Greatful for both! Contact Sue Kostal, 1-517-875-4181 work, 1-313-461-1362.

Also Border Collie Stock Dogs. Call today.


Iowa, Michigan

MINATURE DONKEYS for sale. All ages available. Friendly, easy to care for, lovely. Portable stock. Call 1-517-873-9776. Chow & Sons, Adrian, MI.

OSTRICH CHICKS Exceptional South African bloodlines available in all ages. Let us introduce you to America's newest agricultural trend! The Ostrich Ranches, 1-216-325-3456.

PURCHEC YORKSHIRE Hampshire F-4 B saw and Open Gifts. Also bred Gift with Real Texas! Aga stock, with percent of lean. Imperial Elk Ranch, 1-810-625-2665.

MINIATURE ANGUS: 4 year old & weaned. $1500. Call 1-517-587-4339 or 1-517-967-3819.


BOREDBERG ANGUS FARMS, 1-810-329-2740.

SCOTTISH HIGHLAND CATTLE: Registered, well bred, high energy roasted right on your farm! irrigated. High energy roasted soybeans. See the difference. We also grow other grains. Short's Roasting 1-810-764-3288.


IMPELEL Elk Ranch 1-419-444-5229.

SOYBEAN ROAST; feed high fat, high energy soybeans. See the difference. We also grow other grains. Short's Roasting 1-810-764-3288.

TOO MANY SOUTHERN LAMBS? Have you got too many sheep? Low prices on oiliated sheep. See the difference. We also grow other grains. Short's Roasting 1-810-764-3288.

GET YOUR TILLAGE Rates Parts Group Purchasing!

Circulation over 46,000 in State of Michigan.
entitles you to discounts at the following major theme parks in the Midwest and Florida:

- Sea World
- Busch Gardens
- Cypress Gardens
- Henry Ford Museum & Greenfield Village
- Cedar Point
- Kings Island
- Detroit Zoo
- Pleasure Island
- Opryland

Your Michigan Farm Bureau membership entitles you to discounts at the following major theme parks in the Midwest and Florida:

- Universal Studios
- Disney World/Epcot/MGM
- Disney Land
- Busch Gardens
- Sea World
- Cypress Gardens
- Henry Ford Museum & Greenfield Village
- Cedar Point
- Kings Island
- Detroit Zoo
- Pleasure Island
- Opryland

To take advantage of these discounts, call or write your county Farm Bureau office TODAY!