CHIGAN FARM N

At Presstime: **U.S. Senate Approves** Funding for EPA Ethanol Program

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The U.S. Senate voted to fund the Environmental Protection Agency's controversial new program to promote the use of cornbased ethanol and other renewable oxygenates in the new Clean Air Act, according to a Knight Ridder News report.

Vice President Al Gore cast the deciding vote to break a tie on the Senate floor that would have killed funding for the ethanol program. The vote followed an intense debate that cut across party lines and pitted Senators from farm states against senators from large energy-producing states and areas where the new reformulated gasoline will be required. Michigan Senators Carl Levin and Don Riegle both supported the funding measure.

Despite the legislative victory, the ethanol program still faces a bitter legal battle from the American Petroleum Institute and the National Petroleum Refiners Association, which have filed a lawsuit challenging EPA's authority to require which fuels they should use. (see related story page 2)

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Have You Been Scouting for Corn Rootworm?.....page 10

New Sept. 1 Selenium Regulations May be Delayed page 12

Get the 1994 MSU Wheat Variety Yield Results Before Making Seed Purchase Decisionspage 13

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-Holland), Bart Stupak (D-Menominee) and Vern Ehlers (R-Grand Rapids), and Sen. Don Riegle (D-Flint), was successful in receiving Espy's

The state's peach crop is forecast at 15 million pounds, 69 percent less than last year, according to the Michigan Ag Statistics Service. Approximately 66 percent of Michigan's growers will not have peaches this season. Berrien and Van Buren Counties were hardest hit. These trees in Southwest Michigan had already met their fate with a bulldozer.



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.

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"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

"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 Hogberg, 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 arena, an exhibition area, and an auditorium that can be used for classes, auctions, and/or meetings.





In Brief...

Ethanol Lawsuit Suit Filed with ADM in Mind

A lawsuit filed by the American Petroleum Institute (API) against the Environmental Protection Agency and the reformulated gasoline program was filed with the intent of stopping "this shameful, unlawful abuse of power," according to an API release.

A *Chicago Tribune* report said the lawsuit is a shot at the Archer-Daniels-Midland Co., one of the chief ethanol distillers in the country. The report said ADM has been one of the largest campaign contributors to both the Democratic and Republican parties.

"The company expects that corn and gasoline prices will continue to be the dominant influences on ethanol earnings and that the recently issued EPA Renewable Oxygen Standard will have no material effect, either positive or negative, on ADM's earnings," ADM said in a prepared statement to refute environmental and oil industry claims that the company would be the major profiteer of the reformulated gasoline decision.

Apple Trouble to the North

The Canadian Horticultural Council filed a second complaint against U.S. apple exports, claiming American dumping of surplus apples into Canadian markets. The Canadian government in February removed import duties from American apples and allowed U.S. growers to sell apples at prices lower than Canadian producers could meet.

Canadian apple producers claimed they have lost nearly \$2 million from their 1993 harvest since the decision was made. A representative of the U.S. apple industry discounts the dumping claim, saying American producers sell their fruit for the same price in Canada as they do in similar American markets.

BST Customer List Sought by Activist

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.

Wildlife Prefer Corn

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 wildlife.

The study was conducted in 10 top corn-growing states and found that the 1 percent loss figure translated into about 35.4 million bushels. At \$2.59 a bushel, the loss topped \$90 million. Unidentified wildlife caused nearly 14 million bushels of the damage, while deer were blamed for 12 million bushels, and birds, 10 million bushels.

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 canola withdrawn from regulated status by the Agriculture Department. If taken from the regulated list, the company would no longer need USDA permission to conduct field trials, but the Food and Drug Administration would still regulate its use in either food or animal production. The Laurate canola plant's oil is used in the production of laundry detergent, shampoo, non-dairy coffee creamers and whipped toppings.

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 writer, Jonathan Tolman, an environmental policy analyst at the Competitive Enterprise Institute, says that while a major government study showed last week that the U.S is losing only 66,000 acres of wetlands a year, EPA Administrator Carol Browner claimed before Congress in May that the figure was 300,000 acres.

Tolman writes that "draconian, command-and-control wetland regulations are no longer necessary. In the past 10 years the federal government has made dramatic changes in its wetland policy," he writes. "The result is that the U.S. is currently restoring more wetlands every year than it is converting to other uses. (It does this, for example, by buying fallow land from farmers and flooding it.) The U.S. has effectively achieved what former President Bush repeatedly called for: 'no-net-loss' of wetlands."

July Farm Prices Down 2.9 Percent from June

The index of prices received by U.S. farmers for their products in July was down 2.9 percent from June and was down 5.0 percent from a year earlier, according to USDA. Price declines in July for corn, soybeans, oranges and wheat more than offset price gains for lemons, potatoes, onions and cattle.

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Lower prices for cattle, oranges, hogs, and lettuce more than offset higher prices for rice, wheat, cotton and hay, USDA also said. The Index of Prices Paid by Farmers for Commodities and Services, Interest, Taxes, and Farm Wage Rates was down 0.5 percent from April, but was 2.1 percent higher than July 1993.

USDA said the declining July index was most influenced by a drop in prices since April for feeder cattle and calves, feed grains, feeder pigs and hay.

Open Season Declared on 1995 Farm Program

Agriculture Secretary Mike Espy has cautioned that all federal farm subsidies are open for review as his department begins work on its 1995 farm bill proposal. "Everything is on the table," Espy said of the wide range of possibilities his staffers are exploring "Nothing (farm programs) is sacrosanct." Espy would not give specifics on the programs they are examining or speculate on changes to specific programs.

Agriculture Still Strong Job Contributor

The Agriculture Department said farms and farm commodities provide -- directly and indirectly -- 16 percent of all American jobs. USDA said on-farm employment, processing jobs and retail and wholesale trade in food and fiber make up the total percentage. The USDA report also said farm and farm-related industries employ more than 20 percent of all workers in Iowa, Kentucky, Nebraska, Montana and the Dakotas.

Possible Rail Car Shortage this Fall

Midwest elevator operators are worrying about a rail-car shortage similar to 1992, when harvested corn and wheat had nowhere to go as elevators backed up with bumper-crop harvests and a lack of transportation facilities in Nebraska and Iowa.

Although rail operators have plans to increase their fleet of covered grain cars, a Chicago & Northwestern railroad spokesperson said it is too expensive for the industry to meet peak harvest demand and let their grain cars sit for the remainder of the year. A Union Pacific spokesperson said each covered car costs the company about \$40,000.

Well, Excuse You!!

The Environmental Protection Agency has given researchers at Utah State University a \$500,000 grant for a three-year study on bovine flatulence and possible means to cut down on methane in the atmosphere -- about 20 percent of which is produced by cattle.

Utah State professor Kenneth Olson said the primary escape route for bovine-emitted methane is through exhaling, not by other actions more commonly associated with flatulence. Olson told the *Washington Post* that one key to controlling bovine methane emissions is to ensure cattle are fed nutritious and beneficial forage. He said when cattle eat underbrush and weeds, it is the equivalent of human consumption of chili dogs and beer, good tasting but rough on the digestive tract.

Dr. Glynn McBride - Association of Farmer Cooperatives Scholarship Available Through MSU

Four new \$1,500 scholarships for Michigan State University students in the College of Agriculture and Natural Resources have been made available. The Glynn McBride - Michigan Association of Farmer Cooperatives Endowed Scholarship fund was established to honor former MSU Professor McBride who taught at MSU until his retirement in 1984.

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,
- Demonstrate academic achievement by maintaining a grade point average of at least 3.0.
- Exhibit outstanding leadership and civil service.

According to Tolman, the government's top three wetlands restoration projects in 1994 will restore a combined total of 157,000 acres of wetlands -- more than enough to offset the 66,000 wetland acres the recent government report says will be lost to other uses. "By the end of 1994, there should be tens of thousands more acres of wetlands than there were at the beginning," Tolman's article stated.

Gingrich Farm, Bureau Volunteer of the Month

Elaine Gingrich of Leroy, located in Osceola County, has been named Michigan Farm Bureau's volunteer of the month for her efforts in organizing and hosting a farm tour day for over 450 fifth grade students. The program sponsored in cooperation with the Osceola SCS, ASCS, Sheriff's Department and the Extension Service, was held on the family's dairy farm. The Gingrich dairy operation includes Elaine and her husband Larry, daughter Amy, and their son Shawn.



Animal Science, Crop and Soil Sciences, Horticulture, or Food Science and Human Nutrition. Demonstrate an interest in a career with cooperatives.

To learn more and/or request a scholarship application before the application deadline of Sept. 1, call or write: Dr. Richard Brandenburg, 121 Agriculture Hall, Michigan State University, East Lansing, MI 48823, or phone: (517) 355-0234

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U.S. Department of Labor Educational Workshops and Enforcement

Sweeps Planned

The U.S. Department of Labor and the Michigan Department of Labor, will be conducting enforcement initiatives, better known as "sweeps," over the next two months with an emphasis on violations involving wage records, independent contractors, child labor, and deductions from pay, according to MFB Labor Specialist Howard Kelly.

"A new focus will also be placed on Civil Money Penalties (CMPs) which can now be assessed on minimum wage violations and overtime violations," Kelly said. "CMPs have been enforceable for child labor and housing violations for years. Farmers should take this notice and the enforcement initiative seriously, and be prepared."

Enforcement officials will be looking at employers who have a track record of similar, willful and recurring violations.

According to Kelly, if a violation has occurred in the past and the employer was warned, but Department of Labor officials find it has not been corrected, then a CMP will most likely be issued. An assessment letter will be sent to the employer with the amount of the penalties.

The following is a news release from the U.S. Dept. of Labor announcing their educational initiative, which will proceed the enforcement initiative.

They are strongly indicating that child labor violations will be their major focus, as well as wage issues and wage reports. If you are concerned and want answers directly from the officials themselves, the meetings they have scheduled 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 regulation changes which occur when school returns to session. Daniel Ocharzak, district director of the U.S. Labor Department's Wage-Hour District Office, Grand Rapids, said the program will be particularly useful for employers who have used child labor over the summer and will now have to adapt to school-time rules. He added that schoolto-work coordinators would also find the information useful.

"It is particularly important beginning this year," Ocharzak said, "that employers are careful not to violate child labor laws. On the federal level, we're committed to protecting vulnerable populations, such as young workers, and to use significant penalties including criminal penalties, to deter violations of the law."

Ocharzak said that child labor violations can draw penalties of \$10,000 per violation. He added that parents may find the seminar useful in learning what their children can and can not do at work as well as the hours they are allowed to work.

Registration is not required, and there is no fee. All seminars are scheduled from 9 a.m. until noon. For more information, contact Howard Kelly at 1-800-292-2680, extension 2044.

Child Labor Seminar Locations

Aug. 18 - Marquette D. J. Jacobetti Center Michigan Veterans Facility Board Room

Aug. 24 - Kalamazoo Carpenters Local 297

Aug. 25 - Flint Electrical Union

Aug. 31 - Grand Rapids Kent Intermediate School District Grand Room

Farm Bureau's Grass Roots Policy Development Process Begins

Michigan Farm Bureau's annual grass roots policy development process has been kicked off with the appointment of a 20member committee by the organization's board of directors. paring a slate of policy recommendations for voting delegate action at the Michigan Farm Bureau annual meeting in Detroit on Nov. 28-Dec. 1.

During the months ahead, the Policy Development Committee will meet with various resource people, study issues, and correlate

The committee, which will be chaired by Tom Guthrie, Delton, is responsible for pre-

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 need the state has for the proposed biosolid land application program and how that program could be funded. The work group will consist of representatives from environmental groups, farming 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)

and consolidate an estimated 1,200 recommendations received from the organization's 69 county Farm Bureau units and state advisory committees.

One issue of special concern to farmers this year, Guthrie said, is the 1995 farm bill which will be enacted by Congress and is expected to be in effect through the year 2000. A series of three meetings, scheduled for Aug. 15 in Grayling, Aug. 16 in Grand Rapids, and Aug. 17 in Flint, will provide members with specific information on farm bill issues and alternatives.

Other members of the committee are: Harlow Bailey, Schoolcraft; Robert Mayer, Bronson; David Dejanovich, Willis; Lynn Drown, Lowell; Tom Jennings, Swartz Creek; Marvin Kociba, Harbor Beach; Rick Johnson, Osceola; Vic Daniels, Jr., Sterling; Gene Veliquette, Williamsburg; and David Moberg, 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 Zeeb, Bath.

At-large members from the Michigan Farm Bureau Board of Directors, in addition to Guthrie, are Diane Horning, Manchester; and Joshua Wunsch, Traverse City.



include those non-program crops," Camp said. "I still have some question whether it would apply and I'll be watching that aspect as we continue working on the legislation."

State ASCS Director James Byrum declined to speculate on what the final disaster program might eventually look like, until it passes out of the conference committee. "We won't really have a definitive word on what any program, provided there is a program, might look like," he said.

A Michigan ASCS crop assessment of Michigan crops which was sent to Washington, D.C., clearly showed some major problems, according to Byrum, particularly in the thumb and Saginaw Valley areas.

"Dry beans and peaches are probably talked about more than any other crop, but potatoes have taken a pretty big hit, along with sugar beets," Byrum said. "But in terms of a final assessment, we're just going to have to wait until harvest is complete to determine how bad it has been."

Byrum recommends that producers get in touch with their local ASCS office before bulldozing any trees, or tearing out any crops that may have failed, to make sure that proper documentation exists. Last, but not least, Byrum says that as harvest gets underway, producers need to maintain thorough records of what is actually harvested.

A close look at the difference between a healthy peach tree limb on the left compared to a discolored limb on the right that's slowly dying.



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August 15, 1994



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.

7/1/94	Ter	nperature	Growing Deg	gree Days	Precip	oitation
	bserved	Dev. From	Actual	Normal	Actual	Normal
Street and street.	Mean	Normal	Accum.	Accum.	(inch.)	(inch)
Alpena	67.2	+ 0.3	1312	1232	5.53	3.18
Bad Axe	68.9	- 1.2	1384	1502	5.94	2.92
Detroit	74.4	+ 2.5	1959	1627	3.20	3.11
Escanaba	65.7	- 1.1	1015	944	2.82	3.19
Flint	70.6	+ 0.1	1594	1627	2.84	3.11
Grand Rapids	71.3	- 0.2	1669	1661	8.06	3.09
Houghton	64.0	- 1.0	1023	1132	2.95	3.42
Houghton Lak	e 68.7	+ 1.1	1447	1232	4.92	3.18
Jackson	71.0	- 1.9	1662	1636	2.96	3.22
Lansing	70.8	+ 0.1	1620	1636	3.87	3.22
Marquette	64.7	0.0	1102	1132	1.09	3.42
Muskegon	70.0	- 0.2	1432	1425	2.91	2.54
Pellston	66.7	+ 0.9	1255	1278	2.47	2.99
Saginaw	70.5	- 1.1	1582	1502	4.22	2.92
Sault Ste. Mar	ie 63.6	- 0.2	967	944	4.48	3.19
South Bend	73.2	+ 1.3	1903	1661	4.54	3.09
Traverse City	69.1	- 0.6	1402	1278	4.15	2.99
Vestaburg	69.5	- 2.0	1498	1493	7.89	2.97

Observed and growing degree day totals are accumulated from April 1. Normals are based on district averages. Jeff Andresen, Ag Meteorologist, MSU

In the longer term, the NWS 90-day outlook for August through October forecasts Michigan in between a warmer than normal pattern across the eastern U.S. and cooler than normal conditions across the Great Plains region, resulting in near normal temperatures and precipitation.

Fruit Chemical Usage Summary for 1993 Released

The National Agricultural Statistics Service (NASS) through 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.



Serving Michigan Farm Families is Our Only Business

Since its beginning in 1971, Michigan Farm Radio Network's only objective has been to serve Michigan's farm families. This dedication to serve agriculture is shared by 29 local radio stations in Michigan. Through these stations, Michigan Farm Radio Network provides the latest in market analysis, weather and news to Farm Bureau members daily on the following stations:

Station	City	Frequency	Morning Farm	Noon Farm
WABJ	Adrian	1490	5:45 am	11:50 am
WATZ	Alpena	1450	5:30 am	11:30 am
WTKA	Ann Arbor	1050	6:05 am	12:05 pm
WLEW	Bad Axe	1340	6:30 am	12:50 pm
WHFB	Benton Harbor			12:30 pm
WKYO	Caro	1360	6:15 am	12:15 pm
WKJF	Cadillac	1370	5:55 am	11:20 am
WTVB	Coldwater	1590	5:45 am	12:20 pm
WDOW	Dowagiac	1440	6:05 am	12:15 pm
WGHN	Grand Haven	1370/92.1	5:45 am	12:15 pm
WPLB	Greenville	1380	6:15 am	11:45am
WBCH	Hastings	1220	6:15 am	12:30 pm
WCSR	Hillsdale	1340	6:45 am	12:45 pm
WHTC	Holland	1450		12:15 pm
WKZO	Kalamazoo	590	5:15 am	
WLSP	Lapeer	1530	7:20 am	11:50 am
WOAP	Owosso	1080	6:15 am	12:30 pm
WHAK	Rogers City	960		12:15 pm
WSJ	St. Johns	1580	6:15 am	12:15 pm
WMLM	St. Louis	1540	6:05 am	12:20 pm
WSGW	Saginaw	790	5:55 am	12:20 pm
WMIC	Sandusky	660	6:15 am	12:45 pm
WCSY	South Haven	940		12:15 pm
WKJC	Tawas City	104.7		12:45 pm
WLKM	Three Rivers	1510/95.9	6:15 am	12:15 pm
WTCM	Traverse City	580	5:55 am	11:20 am

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 bearing apple acres, 82 percent of the 11,200 bearing grape acres, 16 percent of the 7,000 bearing peach acres, and 33 percent of the 33,000 bearing tart cherry acres.

Simazine (Princep), at 34 percent of the area applied, was the most often used herbicide on the 15,500 bearing blueberry acres. Glyphosate (Roundup, Rattler), at 38 percent, was used most often on the 7,700 sweet cherry acres.

Azinphos-methyl (Guthion) was the most frequently used insecticide in apple, peach,

sweet cherry and tart cherry orchards with 90 percent, 80 percent, 92 percent, and 83 percent of their respective acres receiving treatment.

Malathion was the most used insecticide on blueberries with 86 percent of the state's acreage treated. Carbaryl (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 93 percent, 74 percent and 78 percent of their respective acreages receiving treatment.

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

Trade names are provided as an aid in reviewing pesticide dat 1. NASS does not mean to imply use of any specific trade names or products.



Extended Weather Outlook 8/15..... 8/31 8/15 10/30 T - Temp. P - Precip. T......P Tummer P Michigan B.....B N N W. Corn Belt N.....B E. Corn Belt B.N Wint. Wheat Belt B. B B Spr. Wheat Belt A B Pac. NW Wheat A. B Ν., .N DeltaN B.

A N/A

Michigan and Major Commodity Area

A-Above Average, B-Below Average, N-Normal, MA-Much Above, MB-Much Below, NP-No Precip. Source: National Weather Office

B/N.....A

N.....B

Southeast

San Joaquin

- Station signs on at different times during the year. Morning farm times change with the sign-on times.
- ** Station airs various farm reports between 5:30 and 6:00 a.m.
- *** Station airs various farm reports between 12:00 and 1:00 p.m.

Some stations carry additional market reports throughout the market day.

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Is There a Place for STS Soybeans in your Operation?

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

Does your stomach get tied up in knots when you see your soybeans after a postemergence herbicide treatment? There's no doubt that many farmers have nervously watched and sweated to see if their stunted and discolored beans will recover, and that the weeds will actually die.

Thanks to a new soybean seed variety, known as STS, you might be able to avoid the annual agonizing process of postemergence weed control in your soybean fields. 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 premixes of Pinnacle and Classic known as Concert and Synchrony, the soybean plant doesn't show any sign of stress or stunting, and is actually able to metabolize the chemical. The STS gene does not, however, increase tolerance to any other soybean herbicide.

"By eliminating the stress often associated with postemergence herbicide application, it really helps the soybean plant to continue growing," explained Varner. "It also simplifies the spray management program tremendously.

With an STS variety bean, Varner says that producers won't have to be concerned with the weather conditions or various application rates to avoid injury to the soybean plant. Growers will have just one rate, and one rate only, that can be applied postemerge on soybeans for broadleaf weed control. That would ideally occur when the weeds are between two to four inches tall.

Varner advises farmers who are planning on trying an STS variety of soybeans, to do so on a whole-field basis rather than trying to split a field between regular and STS beans.

"You can plant an STS bean and spray any herbicide you want to on it," Varner said. "However, you definitely do not want to get

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 tilth and are economically feasible.

The focus of this year's tour is "Putting the System 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 beets, dry beans and corn. The tillage systems consist of fall plow, fall chisel, trans-till and zone-till systems. Corn was planted with different closing 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.

Since this is the first year of the five-year project, it's important to learn more about the planter attachments, strip tillage implements, combine adjustments and other changes are necessary to eventually make a reduced tillage system work.

Buses will be available for transportation to and from the sites. One bus will leave from the Pigeon Municipal Parking Lot at 9:15 a.m. A second bus will leave from the Expo Center parking lot at the Huron Community Fairgrounds in Bad Axe at 9 a.m.

The Innovative Farmers of Huron County were organized last year to promote a more economical, efficient and environmentally sound agricultural industry in Huron County. Currently, 46 farms have joined the organization including farms from Sanilac, Midland and Ontario. In addition, 32 commodity groups, agencies, local agriculture businesses and lending institutions have joined together to provide financial or crop input support for this project.

Lunch will be available and there is a \$5 registration fee which includes transportation and lunch. To register for this field day, or for more information, contact MSU Extension -Huron County by calling (517) 269- 9949. Plan now to attend this event.



confused and put Synchrony or Concert on a non-STS variety of soybeans."

To help avoid confusion between regular and STS varieties, at least one seed company, Dairyland Seeds, plans to market their STS soybean seed in drastically different colored and designed seed bags, according to Gary Freiburger a Dairyland Seed's eastern regional sales manager. "We have designed a special bag for the STS beans so there's no question whether or not the farmer has the right bean for the right field," he said.

STS soybeans were available on limited basis in Michigan for 1994, however, the new soybean varieties should be widely available for the 1995 growing season, according to Freiburger. He suggests producers check with their seed supplier and place their orders early for the new STS varieties.







- More winter hardy
- More fibrous and extensive root system
- Increased tillering
- Larger diameter stem
- Wider, darker green leaves, fuller canopy fill row sooner
- Earlier pollination
- · Heavier seed weight

The identified performance parameters typically result in:

- Increased uptake of soil nutrients
- Increased utilization of sunlight in photosynthesis
- Improved winter hardiness Higher yields and/or test weight
- Yield Information Postemergence applications to Winter Wheat (1993)

- Spring greenup and vigor
- · Spring observation on plant stand
- Fall first to fourth leaves unfolded
- Spring emergence of inflorescence
- Spring from stem elongation on
- Spring at completion of tillering
- Spring at completion of tillering
- Spring at flowering · At maturity
- Increased uptake of soil moisture
- Increased tillering and foliage
- Improved standability and ease of harvest

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- 33 total studies 7.6 bushel per acre increase 10.5% increase in vield
- Return on ACA investment of \$17.64 (2/3 pint/acre)
- 2/3 pint ACA per acre broadcast [Winter Wheat at \$3.00/bushel x 7.6 bushel increase/acre = \$22.80
- ACA investment of \$5.16/acre (2/3 pint/acre) = \$17.64 R.O.I./acre]

Application Techniques/Procedures

Test results have shown that ACA can be applied to the soil or foliage of winter wheat. ACA can be broadcast incorporated into the soil using water or a fertilizer solution 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. This will position 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 insecticide 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 as the carrier.

NOTE: The effect on weed control when ACA is added to postemergence herbicides is unknown. Thus, it is not recommended at this time to apply ACA with any postemergence herbicide.

Other application methods:

- Soil applied broadcast with water as the carrier, with or without a herbicide
- To wheat foliage with water as the carrier



Contact your local Clean Crop Dealer or call 1-800-292-2701 for additional information on THE ACA ADVANTAGE



August 15, 1994

6

Market Outlook

?

Seasonal Commodity

Price Trends

Index: = Higher Prices; = Lower Prices;

TP= Topping; BT= Bottoming; 7 = Unsure

increase in exports. The problem is substantial increases in both feed use and exports

are not likely to come close to the expected

Strategy: What should our pricing plan be?

At this point, we need to re-evaluate the

new information and make some new real-

istic pricing goals. At this point, the thing

to do may be to wait -- prices are likely near

the bottom and the basis is not offering us

months, world demand looks fairly strong.

Again, while soybean use for 1994-95 will

likely pick up significantly compared to this past year, unless we have a bad August

in the production sense, the increased use

is not likely to make up for the increase in

Strategy: What do we do in the pricing arena? First, re-evaluate your pricing goals

based on the latest information. Second, get ready to act on your new plan if the market

starts jumping. At this point, the basis isn't

great, and if we didn't have a bullish report

on Aug. 11, prices are probably near the

Corn

Wheat

Hogs

Cattle

increase in production.

any great deals.

production.

bottom.

Soybeans

Dr. Jim Hilker, Dept. of Agricultural Economics, MSU

CORN

On Aug. 11, the USDA released the first 1994 corn crop production estimate using survey field techniques. For the time being it will set the expectations. As of this writing, a week before the release, it appears the crop estimate will show the 1994 corn crop around 9 billion bushels.

Did it? Have conditions changed significantly since the first of August? Did the market correctly factor in the size of the corn crop? These are questions you need to answer before you make your next pricing decision. The market has probably already given you its answers by both direction and size of price moves since the report was released.

At the same time, the USDA released an updated Supply/Demand Report. It will be interesting to see what use expectations are, given what will most likely be much lower prices than a year ago. One thing that will help is cattle, hogs, and broilers are all in expansion phases.

It appears 1993-94 exports for the marketing year ending Sept. 1, 1994 will reach expectations. It is unclear how world use will react to the lower price expectations for 1994-95, but we should see a significant

SOYBEANS

Some would say soybeans are made in August, which means there is a greater chance that the final soybean number could be different from the August estimate that just came out, than say, corn, which some say is made in July. Nonetheless, between the Aug. 11 report which estimated the soybean crop, given Aug. 1 conditions, and the weather since then, we probably have a pretty good idea what the soybean harvest will be.

Exports for the 1993-94 year appear to barely meet expectations. However, if we look at exports for the U.S. and South America combined over the past few

WHEAT

How's the spring wheat crop coming in? Over the last few years it has really influenced fall prices. Will the USSR have any credit to buy wheat? It appears they could use more than last year.

What will be the effect of the U.S.-Canadian settlement which sets in place mechanisms to slow Canadian wheat flowing into the U.S. while the problem is studied for a year?

I suspect the effect will be small, as their wheat will then flow into the world market competing with ours versus our domestic market, but the cost will go up for the Canadians. ating in a system where the players have some idea of where we are going versus trade wars.

Strategy: Fundamentally, wheat prices are near what you would expect. An important question now is, will it pay to store?

At this point, the basis is near normal to a little wide for the nearby. The spread between September and December futures is more than enough to pay on-farm storage and may be wide enough to pay commercial storage.

This is an indication that a narrowing of the

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 act like yo-yos, all those earning their 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 \$1.39 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 drop in product prices. 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 unique. 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

As we analyze the July 1 (released July 22) USDA quarterly 13-State and monthly 7-State Cattle-On-Feed Reports it shows we may have a reprieve this fall and early winter from the heavy numbers coming to slaughter. On the other hand, the mid-year Cattle Inventory Report shows the cattle sector is in an expansion phase.

The 7-state report showed on-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 feedlots were taking in the April-June period. It is no surprise that placements were down significantly. For the most part, these are cattle that are expected to be ready in the fall and early winter. Marketings were up 1 percent and 2 percent in the 7-state and 13- state reports, respectively.



FARM BUSINESS OUTLOOK

Many dairy market analysts are hardpressed to explain why the dairy markets are acting like yo-yos. Markets appear to have been driven down by a rapid increase in milk production. However, then the hot weather hit in nearly all dairy regions and milk supplies wilted.

In the meantime, dairy demand is chugging along at a pace that is 3.6 percent ahead of last year. Cream supplies are tight and the CCC is having to sell surplus butter back to commercial markets to meet demand. Dairy markets tighten and up went product prices.

As most industry participants know, small swings in milk supply and demand cause very large swings in milk prices. Without more overt help from the dairy price 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?"

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 \$73 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 July 1, 1993. The 1994 calf crop is expected to be up 2 percent. Folks, this is expansion and it's a hard ship to turn arounc.

Not to be a pessimist, but rather to complete the story, we need to look at total per capita meat consumption. In 1993 we ate 207.6 pounds per person per year. In 1994 it has jumped to 212.1, and in 1995 it is expected to jump to 217.7. It is hard to see how consumers will keep up with these 5-pound a year jumps without large price cuts or significant increases in income.

It is important that the study is well done, so that it helps both our subsidy systems move towards GATT. There are compromises in all agreements and we should always strive towards making them better. However, it is important that we are oper-

HOGS

According to the June Hogs and Pigs Report, we should be seeing about 2 percent more hogs coming to slaughter than a year ago through much of September. This should keep prices up in the lower half of the \$40 range.

As we move into fall, year-to-year increase in slaughter appears like it will be in the 4 percent range. This should push prices under \$40 for some of the fourth quarter.

As we look at 1995, production is expected to be up around 5 percent, along with increases in both cattle and broiler slaughter. basis may pay storage. However, narrowing of the wheat basis is not as certain with soft white wheat as with corn and soybeans. You may be just as well off using a basis contract, a minimum price contract, or sell cash and buy calls, if you must store offfarm and the rates are high.

We could see prices average less than \$40 for the year.

Strategy: At this point, if the basis turns out to be normal, the futures are offering us slightly more than the above forecasts.

It's time to pick some realistic levels where you would consider locking in some future production along with the low corn and meal prices we have now. I am not talking about a "get rich" scheme, but rather a "protect the farm" scheme. Tree Survey has been completed. There were 75,000 acres used for production of 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. One hundred thirty (130) operations reported at least 100 acres and accounted for over two-thirds of the state's producing acres.

Wexford, Missaukee, Oceana, Montcalm, Kalkaska and Allegan were the six top counties, in acreage, respectively and accounted for 50 percent of Michigan's acreage. Although the Christmas tree industry is somewhat concentrated in the northwest Lower Peninsula, 40 counties across ing trees and 68 counties had 50 acres or more.

Scotch Pine, Colorado Blue Spruce and Douglas Fir were the three most prevalent species grown in Michigan for Christmas trees. There were 38,900 acres of Scotch Pines, 12,900 of Colorado Blue Spruce and 11,400 acres of Douglas Fir. These three species accounted for about 85 percent of all Christmas tree acreage in Michigan.

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

A complete set of tables detailing Michigan's nursery and Christmas tree industries 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 48901-0608.

Dairy Telfarm Analysis, 1993

Sherrill B. Nott

Department of Agricultural Economics Michigan State University

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 assis-tance 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 whole farm profit measures. All the measures show 1993 was better. However, the 1993 group had 11 more cows and sold 486 more pounds of milk, on the average. These appear to have provided the extra profit in 1993.

The milk price in Table 1 is the net price after all butterfat, protein and quality adjustments, but before trucking is subtracted. The year's average price was 46 cents lower in 1993 than in 1992.

The cost per cwt. of milk produced was \$1.03 more than in 1992. A major reason for this unusually high jump was caused by higher feed costs. More dollars were spent

Table 1. Dairy Farm Results, 1992-1993

	Sample Size	and Averages
	1992	1993
Number of farms		170
Net farm income		\$60,173
Management income		\$6,072
Return to capital		6.7%
Cows per farm		125
Milk sold per cow, lbs		19,198
Mllk price per cwt	\$13.44	\$12.98
Cost per cwt. of milk		\$12.08
Corn grain yield, bu		107
Corn silage yield, ton		14.8
Hay yield, ton		4.2

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. Inventories 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 fewest number of farms. For the largest herd, there was an open ended size definition. The average number of cows was 229, indicating a much larger farm than the other three groups. Variability within in each size group is large.

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 either 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 \$6.50 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 Larzelere, 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 about 2 cents a dozen eggs below July 1993.

Wholesale prices in New York for Grade A large white eggs in cartons are expected to average in the low 70s in August and September. In the October-November-December quarter, prices are expected to move up to the mid to upper 70s.



August 15, 1994

When put on a per cow basis, the middle sized farms had an advantage. The smallest and largest seemed to have the higher livestock costs per milk cow. However, the labor income per cow appears tied to herd size.

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 was. 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."

In July, the U.S. egg flock, total egg production and table egg production all averaged about 2 percent above a year earlier. By September, it is expected that the U.S. flock will be slightly less than last year. The egg-type chick hatch, starting in January 1994, has been less than the corresponding month in 1993. In June 1994, the hatch was 10 percent below a year earlier and the eggs in incubators on July 1 were 16 percent less than that date in 1993.

Recent spent hen slaughter figures are less than last year. This trend suggests that more forced molting strategies will be used to maintain moderate production, even though fewer new pullets will be available.



Table 2. 1993 Result Averages by Herd Size

Item	Less than 65 Cows	65 to 100 Cows	100 to 150 Cows	More than 150 Cows
Number of Farms	40	45	36	49
Number of cows	46	82	124	229
Milk per cow, lbs.	17,036	17,660	19,489	19,939
Net income per farm, \$	26,500	50,966	61,315	95,278
Cost per cwt. of milk, \$	13.79	12.54	12.26	11.67
Animal cost, per cow, \$	1,253	1,115	1,187	1,214
Labor income, per cow, \$	138	201	228	303
Crop costs, per acre, \$	258	284	304	358
Labor income, per acre, \$	13	21	(17)	(36



Charts Provided by Knight-Ridder Financial

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 can ultimately save time, pain and suffering, property, resources, and lives.

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.

- Move slowly and deliberately around livestock.
- Touching animals gently can be more effective than shoving or bumping them.
- Respect rather than fear livestock. Breeding stock are highly protective and often irritable. Disposition deteriorates with age and parturition. Old breeding stock can be cantankerous, deceptive, unpredictable, and large enough to be 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.



August 15, 1994

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 bleachlike 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."

> Continued next page...see Silage Gas Dangers

0.1.1.5

A FEW SMALL REASONS



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For information, call 1-800-292-2680 or contact your local Farm Bureau agent.



Calendar of Events

Aug.17 & 18, Potato Field Day, Pig/Beef Roast, and Potato Variety Tour, MSU Montcalm Research Farm, Entrican. Call Dick Chase, (517) 355-0206.

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) 323-6793



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 Delbosque, anyone involved in any type of agriculturally related profession can take advantage of the program's services.

Delbosque 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 for the farmer and the immediate family involved in work on the farm.

However, the program cannot help with legal fees, bankruptcy, 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 Delbosque.

The program has grown significantly since its start. Currently, 78 farm families are being served. According to Delbosque, with financial assistance from the Michigan Farm Bureau in excess of \$40,000 and other agribusinesses, 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 filler pip clogs, 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 first four to six weeks after silo filling. To locate a suitable self-contained breathing apparatus, work through the local fire department or a safety equipment supplier."

"Locating a suitable unit may be frustrating and may take some time, but it is far better than losing a member of the family or paying for impatience with permanent injury," Doss accommodations and support. Farming is one of the most dangerous occupations there is, but it's also one of the most necessary. Where would we be without our farmers?" asks Delbosque. "It takes a very special person to farm, and I think that anything we can do to make their lives easier within the structure of this program is time and money well spent."

Farm Bureau member, James Kronemeyer of Pickford, is one farmer the program is helping. A snowmobile accident left him with a permanent disability affecting his left arm. A visit with Rich Osentoski determined that specialized turn signal levers, a two-way radio system, convex mirrors, magnetic head hammer, and storage bin modifications were some of the things that would make Jim's life easier.

With modifications to equipment and other adaptions made around one of the U.P.'s largest dairy farms, Jim will be able to continue helping on the family farm.

The Michigan AgrAbility Project is one of only 16 in the country. The office is located in Saginaw at 804 S. Hamilton. For more information about program services, or if your interested in making a donation, contact Karen Delbosque at (517) 797-0880. Below, Upper Peninsula dairy farmer James Kronemeyer (left) and Rich Osentoski, an Agrability Engineer, look over resource material to modify farm equipment. A snowmobile accident left Kronemeyer with a permanent disability that affects the use of his left arm



TAKE THE BITE OUT OF DENTAL CARE COSTS





August 15, 1994

says.

Farmers who must enter a silo during or just after filling should follow these general procedures:

- Open a silo door above the silage level to allow any silo gas present to drain out of the silo.
- Run the blower at the base of the silo 15 to 30 minutes before entering to let fresh air in above the silage.
- Always wear a self-contained breathing apparatus when entering the silo within 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.

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Have You Been Scouting your Corn Fields Recently?

Western com rootworm beetles will be yellow in color with black stripes down its back

A little scouting now could help you cut your insecticide bill next spring!

Will you need an insecticide next spring? To help answer that question, you should have been scouting your corn fields over the last several weeks and continue to do so until your silks are either brown, or until first frost in some cases, says MSU Field Crops Entomologist Doug Landis.

"We can use the number of rootworm beetles in a field of corn to predict how many eggs will be laid in the soil and, therefore, to predict the risk of rootworm larvae infestation if we plant corn in that field again next year," Landis explained. "Each female beetle can lay several hundred eggs, up to a foot deep in the soil."

Farmers should be looking for the presence of adult beetles which will commonly be found feeding on silks, and/or on silk and leaf axles, walking around the leaves, and possibly mating under the leaves this time of year.

Western corn rootworm beetles are the most common, says Landis. They'll be about a quarter of an inch long, yellow in color with black stripes on their backs.

Producers should also be looking for the Northern corn rootworm which can cause the same damage as the Western beetle. The Northern beetle in lime-green colored and has no stripes on it.



Photo: Doug Landis

The scouting method is really straight-for-ward. Simply select three different spots in your field, well beyond the headlands, that are representative of the entire field. Count the number of beetles on 60 plants at each location, for a total plant count of 180.

"If you have counted more than 180 beetles on those 180 plants, then it's very likely there's enough eggs laid in the soil to justify either rotating the field to a crop other than corn, or using an insecticide next year," Landis said.

tions already received."

If you count less than 180 beetles, Landis suggests producers continue to scout the field until they have 100 percent brown silks, or they see the population of the beetle actually begin to decline. Later planted fields need special attention, since they can potentially attract a large number of beetles late in the season.

"It's particularly important that growers continue to scout late planted fields, per-haps right up until first frost to make a decision as to whether they need an insecti-cide or not," said Landis. "The same would

apply to fields where there's variation in silking dates due to wet soils. You may want to pay special attention to those areas of the field."

According to Landis, despite research that shows only 10 percent of Michigan's acreage that's planted to a second year of corn warrants insecticide application, 62 percent of those acres actually do receive insecticide. The same applies to third-year corn, where research shows only 50 percent of that acreage would need insecticide, a full 81 percent will receive insecticide treatment.

Landis says that in situations where wire worms, white grubs or seed corn maggot are a threat, such as when corn follows sod or alfalfa, insecticides can be justified. But in a normal rotation of corn, soybeans, and wheat, those pests aren't normally a threat.

Using an insecticide to control cutworm isn't highly recommended either, says Landis, since most entomologists readily agree that it's much more effective to scout for them and treat as needed in the spring, rather than putting down an insecticide treatment at planting which, in fact, is not very effective.

"It's important to realize that while you'll spend a few dollars an acre scouting, you have an excellent opportunity to save yourself the \$10 to \$12 per acre insecticide treatment," Landis said. "But you can't make an accurate prediction without doing the scouting."

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

In 1961, Michigan Farm Bureau conducted a major fundraising campaign to raise \$25,000 for building the Aspen Lodge dor-mitory at what was then known as Camp Kett, near Cadillac, Mich. 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 Extension, Michigan State University, and the



ing campaign, with over \$27,000 in donators include Arenac, Gladwin, Iosco, Lenawee, and Presque Isle.

Individual Farm Bureau members are also

"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 tax deductible 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:

\$250 Contribution - An inscribed paving brick, with the donor's name will be used in the Kettunen (enter

sion, Michigan State University, and the 4-H youth programs," said Laurie. "Re- sponse from county Farm Bureaus has been tremendous upon learning of the fund rais-	Calhoun County Farm Bureau has donated \$6,000, while Berrien, Ottawa, Genesee, and Saginaw counties have donated \$5,000 each. Other county Farm Bureau contribu-	ter Court.
	2021: Michigan Farm Bureau Aspen Lodge Campaign	ding the MFB Donor's Club (\$450) - Attend the reception at the Kick Off Dinner and two inscribed paving bricks.
	021: The Master Plan for Kettunen Center.	\$1,000 Contribution - The donor's name will be inscribed on a plaque in the Aspen Lodge.
This gift will be paid:	A second of the second s	the second s
 immediately, through a check through a pledge paid in equation 	, or a gift of securities. al installments over years (up to 5 years).	\$2,500 Contribution - The donor's name will be inscribed on a "Learning Center Station."
Name:		\$5,000 Contribution - The donor's name will be inscribed on a room in the Aspen Lodge.
Organization:	and the second sec	If you have any questions regarding the
Street:	and the particular of the second s	Michigan Farm Bureau Aspen Lodge Campaign, or the kick off dinner on Sent
City:	State:Zip:	14, contact your local county Farm Bu- reau office, or the Michigan Farm Bu-
Return to: Michigan 4-H F	Youndation, 4700 South Hagadorn, Suite 220, East Lansing, MI 48823-5399	reau Information Division at (517) 323- 7000, extension 6586.

August 15, 1994

Wrapping Up Compliance Plans

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

As the nation's most intensive conservation effort heads into the homestretch, an overwhelming number of farmers are meeting the deadline for protecting highly erodible croplands.

A 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.

Variances

In addition to the 92 percent of plans on schedule, another 4.7 percent of the plans reviewed had been granted one-year extensions, or variances. Extensions are granted when producers have made the best effort possible to keep on schedule but could not due to uncontrollable circumstances, such as hardship or weather, or factors which had minimal impact on accomplishing the erosion reduction goals.

Estimated Soil Savings

SCS estimates that soil erosion on our most highly erodible lands will be less than half what it was in 1985 - reduced about 66 percent - if plans are fully implemented by the Dec. 31, 1994 deadline. That estimate is based on estimated national erosion averages going from 17.5 tons of soil annually



lost per acre in 1985 to six tons per acre by the end of this year.

SCS Chief's Comments

SCS Chief Paul Johnson says that agriculture is well on its way in carrying out "the most intensive conservation effort ever un-dertaken on private lands. Most farmers have made great progress in reducing soil erosion," he says.

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

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 (ESA).

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 lower 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 till 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.

Air pollution control is attained through managed chemical spray timing on fruit trees; changing to band spraying on crop planter; use of no-till and minimum till

Seldom Rest Farms of Niles, owned and operated by Bruce and Scott Foster, won the National Cattlemen's Association Region 1 Environmental Stewardship Award.



cultural practices which reduces soil dust and by using ethanol in vehicles.

On this 1,400 acre farm, wildlife, including deer, ducks, pheasants, birds, and small animals, are protected and controlled. Wildlife habitats are guarded, re-planted and improved annually.

Manure is handled in a controlled and monitored system. All manure is returned to soil; nutrient testing of manure, soil, trees and crops is utilized. Liquid injection of manure is used to reduce odor and attain quicker utilization.

Over the generations, the Fosters have improved their stewardship practices through cooperative efforts with the Soil Conservation Service, MSU Extension, USDA Agri-

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 5-1/2 miles north of U.S. 10 on Stark Road. The tour starts at 10 a.m. on Tues., Aug. 30.

Visitors will see cover crop studies in black turtle 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 follow the two-hour tour. Lunch reservations and additional information is available through the Saginaw Soil Conservation

cultural Stabilization and Conservation Services and local Soil Conservation Districts.

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 pro-ductivity and profitability.

Statistically Speaking...Modern Farming is Saving Wildlife Habitat

Worldwide attention has been focused on the disappearance of wildlife habitat. From the South American rain forests 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 - including the use of commercial nutrients - shows that modern farm practices are saving wildlife habitat by increasing food production using less land.

Without modern techniques, farmers worldwide would have to expand cultivated farmland from the current 5.8 million square acres to over 15 million square miles to achieve the same level of production.

At a recent TFI World Fertilizer Conference, Dennis Avery of The Hudson Institute said, "The threat to wild species is all habitat loss. Our cities now take 1.4 percent of the earth's land area and will only take 3.5 percent in the year 2050. Agriculture and forestry take two-thirds of the land's surface." "Organic farming would thus condemn billions of acres of wildlife habitat. We can't hire enough game wardens to protect the wildlife from starving people," says Avery.



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.

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degradation.

U.S. farmers currently plant about 341 million Cropland Required acres. If they used with 1950 Technology 600 production techniques from 1950, growing the same **Cropland Saved by Technology** amount of food Million would require an additional 393 million acres. This land 200 **Actual Cropland** would be unavailable for wildlife and could be subject to erosion and water 70 75 80 85 65 90 Year



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12 New Selenium (Se) Regulations Could be Delayed Until Sept., 1995

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 due, 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 origi-nally suppose to effect in September 1993.

Feed companies that manufacture feeds and mineral mixes would be regulated to enforce the reduced selenium levels. Last

March, manufacturers of concentrated selenium products were restricted or terminated to allow six months for the pipeline to clear before enforcement was to begin, according to Kirk.

"Under the FDA proposal it would be illegal to feed more than 0.1 ppm selenium in the total ration to any class of livestock except turkeys and young pigs, a decrease from the current limit of 0.3 ppm," Kirk said. "Additional selenium cannot be fed, even with a prescription."

Some feed companies, due to liability concerns, have already decreased Se in their products to pre-1987 levels. Injectable products would still be available, but the need to restrain and inject each animal and the short duration of the Se activity (about two weeks) make this labor-intensive method of supplementation much less desirable.

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 dis-ease 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 be-fore the implementation delay becomes of-

ficial, says Kirk. If the delay does become offical, producers may want to check with theier feed suppliers to make sure the feeds they're using still contain the higher levels of selenium.

For further information, contact Dr. Paul Coe (517) 353-9710, 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 Ontonagon, 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 of 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 Upper 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. Green earned a bachelor of science degree from Michigan State University. He is treasurer of both Green Meadows Farms, Inc. and the Michigan Milk Producers Association. Green is a

Thieves Target Horse Barns: Farm Bureau Insurance Offers \$5,000 Reward

Michigan State Police suspect a theft ring is hitting horse barns and stables throughout Michigan. The target: saddles and tack.

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," 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

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- 06/30/94-07/02/94. For reservations call your Professional Travel Agent or call Alarno at 1-800-354-2322.



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caught.

Thefts 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 appear to be central and southeast Michigan. However, saddles are being re-ported stolen as far 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 13

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. Entries 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 in selecting a variety to plant. It is best to select a variety on the basis of at least three years or more of data. Varieties selected with such comparisons in mind are more likely to perform well under a wide range of conditions.

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

The table is arranged so that the varieties appear in order of '94 average yield with the highest yielding variety first and the lowest yielding variety last. To the left of the '94 data are 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 averages for a column. Means, LSDs, and CVs are included for several data columns. The LSD (least significant difference) is the scientists measure of how big a difference needs to be to be considered real. The CV (coefficient of variation) is indicative of how precise 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 '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 given variety's pest resistance is overcome by a change in the pest population.

Wheat Variety Test Plot Procedures

The 1994 State Wheat Variety Trial was grown at seven county sites: Lenawee, Kalamazoo, Ionia, Saginaw, Huron, Sanilac, and Ingham. Plots were 12 feet long and had 7 rows at 7" row spacing. Seeding rates were standardized to 1.8 million seeds per acre.

Planting dates were all normal. Fall fertility varied with cooperator practice. Spring nitrogen was applied as urea (80 lbs/acre) at green up. No fungicides were applied. All plots at a site are harvested on a single day.

Data for all commercial wheats entered into the trial are reported here. Data for some MSU lines are omitted to reduce the table's size. Means at the bottom of each column are for the listed entries only. Yield was 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.

Disease abbreviations are : PM=powdery mildew, WSSV=wheat spindle streak mosaic virus, 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 1before that variety reached the point where 1/2 of its heads were flowering. This is highly related to differences in harvest date. Plant height was measured at 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. According to Larry Rosenthal, 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 and multiple peril crop insurance into a single program. The new program will provide crop growers with individualized protection at reduced cost. It will also reduce the considerable cost of the previous programs for taxpayers.

Under the new program, growers will have the opportunity to insure their crops at 50, 65 or 75 percent of the yields that they prove for their crops, up to the estimated market price at harvest time. The premium costs start at only a small administrative fee.

MSU Wheat Breeding Program: Multi–Year Performance Summary (all county sites included)

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ioneer 2545				98.2	67.4	72.3	69.8	79.3				56.3	56.3	R	1.7	2.2	5.0	2.4	158	28
ioneer 2552		Ne all	11.	-	10.00	71.9							59.1	R	0.7	1.2	3.0	0.6	157	28
owell (msu)	-	74.9	76.6	103.9	66.5	71.1	68.8	80.5	79.5	78.6		54.9	54.5	w	1.0	1.2	5.0	5.3	158	32
adison (va)		74.4	75.0	91.5	66.7	71.1	68.9	76.4	76.0	75.7		57.2	56.9	R	0.3	0.9	6.0	4.1	157	32
eck 109		14.4	13.0			70.6		-		-	-		60.4	8	3.7	3.4	6.0	2.0	158	35
				-	. 40 7	70.0	69.6			-		56.5	56.7	R	1.7	2.4	2.0	2.8	159	34
reedom (ohio)					69.3			•				60.3	60.6		3.3	3.0	6.0		158	34
erra Sr 204			1		63.5	69.9	66.7	•		•	•	-	-	×				-		-
w151 (andersons)		•	•		63.5	69.0	66.2					00.2	59.7	R	3.0	1.7	235	1.3	157	34
SU Line D1098				11140		68.8				•			56.2	W	4.7	1.9	2.0	1.1	161	32
gra Gr863	51		0	92.4	61.9	68.8	65.3	74.3			•	57.3	56.7	8	2.7		3.0	1.2	156	32
SU Line C5259			-		62.5	68.1	65.3		+		•	57.2	56.3	W	4.7	4.9	5.0	2.4	161	35
arus (canada)	65.9	69.0	71.1	101.7	65.6	68.1	66.8	78.4	76.6	75.1	73.5	57.3	56.5	w	3.0	3.2	6.0	2.1	159	37
ardinal (ohio)	62.8	69.5	70.2	98.6	65.5	68.0	66.7	77.3	75.5	74.3	72.4	57.2	57.7	R	7.0	3.2	5.0	3.2	159	33
ugusta (msu)	58.6	71.1	61.1	102.8	58.6	67.9	63.2	76.4	72.6	72.3	70.0	53.8	56.3	w	4.3	7.9	6.0	2.8	162	35
SU Line D1367	1		10.			67.5							57.7	R	4.3	2.7	3.0	4.0	161	36
Jpp Rs927		-		88.3	60.7	67.5	64.1	72.1				59.6	59.4	R	5.3	3.0	1.0	2.6	156	34
elsea (msu)	70.5	75.0	66.9	103.9	66.4	66.6	66.5	78.9	75.9	75.7	74.8	56.9	57.7	w	0.7	1.4	4.0	3.8	162	34
	10.5	15.0	00.7	103.7		66.5							56.5	u	2.7	4.9	6.0	3.2	160	35
atavia (ny)				•	-			-		-	1 1		55.2	W	2.7		3.0	1.7	163	32
SU Line D1277	•	•				66.3		73.1	69.9	68.9	67.4	56.1	58.4	P	3.3		8.0	2.5	159	36
illsdale (lsi)	60.2	64.8	60.3	97.2	56.1	66.2	61.1	10000	- Statistic	00.7	0.14	53.4	55.7	0	1.0	1.5	2.0	0.8	158	26
gra Gr915			•	-	58.6	66.1	62.3						141141	8				2.8	160	1 and 1
usquehanna (ny/md)) .	120		1	62.9	65.7	64.3		•		•	55.9	57.2	× v	1.0	1.4	7.0	1		36
SU Line C9327		•		0.57	62.2	65.6	63.9	•	•	•		55.7	-	-	6.0	3.4	-		162	35
gra Gr933	•	•		10-	•	64.6		•	•	•	*		55.9	R	5.7	2.7		1000	157	33
rankenmuth (msu)	59.0	66.8	61.9	98.1	58.0	64.4	61.2	73.5	70.6	69.8	68.0	55.4	58.4	W	4.3	6.0	8.0	4.9	162	37
enesee	16.1				55.4	64.3	59.8					57.5	56.4	W	5.7	4.7	5.0	2.2	162	37
ioneer 2737w				105.7	60.0	64.0	62.0	76.5				54.3	55.6	w	4.7	2.0	5.0	0.8	158	25
gripro Hickory						64.0				•			57.6	R	1.3	2.9	3.0	5.3	157	31
ioneer 2548	66.7	75.9	75.6	97.2	64.9	63.9	64.4	75.3	75.4	75.5	74.0	57.2	56.4	R	1.3	6.0	3.0	1.0	159	24
erra Sr205					66.0	63.7	64.8	11.				56.2	55.4	R	5.0	2.5	4.0	1.3	157	3
arena (andersons)			66.4	107.3	59.0	63.2	61.1	76.5	73.9			54.9	57.0	W	2.0	6.2	5.0	2.6	162	30
masty (ohio)	66.9	70.5	62.5	95.7		62.9	63.9	74.5	71.5	71.3	70.5	58.3	57.4	R	5.3	2.5	4.0	2.0	156	34
ackson				1		62.9	1.		11.				57.1	R	0.7	1.2	4.0	4.3	157	30
			. 71.5	92.6	. 55.8	62.6	59.2	70.3	70.6	71.1		57.1			4.7		-	0.7	161	31
gra Gr876	67.7	73.2	71.5		-	62.5	- inc						55.6	R	4.7	11111		1.7	157	31
upp Rs917		•					-		10-10	-		-	100	R	7.3			1.4	158	32
eck 105	*	•	*			62.5		. 72.5	, 71.2			. 57.3	240.4		1.01		Children and			11050
aripro Sawyer			67.5	91.4	64.7	61.4	63.0	72.5	71.2		the is	57.5		R	2.0			3.2	156	3
rant (in)					3	60.1	•	•			•		55.9		4.3	_	-	1.1	159	30
ioneer 2571				-	66.0	57.8	61.9		•		•	57.8	1.6.1.1.1	-	1.0			1.2	157	21
gripro Twain	68.3	77.3	71.8	88.3	66.1	57.7	61.9	70.7	70.9	72.2	71.5	58.9	59.8	-	6.0	3.2	3.0	3.4	157	34
gripro Pontiac					4	57.6	1		-				57.7	R	5.7	3.0	2.0	3.1	156	32
No.			-		17.7	4.5	65.1	76.3	74.3	74.2	71.3	56.8	57.1	1 3	3.3	20	3.9	25	158.7	32.
Mean	64.6	72.8	69.4	98.3	63.3	66.5					11.5	50.0					3.9	2.5	130.7	
			7	7	5	7	12	19	26	33	40	5	7		3		1		1	1

Growers will be required to enroll in the new program at a minimum of the catastrophic (CAT) coverage in order to be eligible to receive benefits from most other USDA farm programs. The CAT coverage is 50 percent of the proven yield at 60 percent of the estimated cash market price.

The new CAT coverage provides farmers with protection against individual crop disasters and is based on the grower's own proven yield. Couple the individual protection with similar amounts of protection as the previous ad hoc disaster programs, and this all adds up to better protection for farmers, Rosenthal said.

The next important step for the new legislature is its approval by the entire U.S. House of Representatives, expected in August.

Rosenthal reminds farmers that Michigan Farm Bureau agents, who are served by Rain and Hail Insurance Service, Inc., will be among the first to have the details on an individual farmer basis once the bill becomes law. The new program is expected to become law in August.



August 15, 1994

14 – Michigan Farm News Classifieds –

01 **Farm Machinery**

HESSION 2 row beet harvester. Field ready! Call 1-517-684-4461 evenings after 8pm.

IRRIGATION SYSTEM for sale. 2-3-4" aluminum pipe, covers 5 acres. Gorman-Rupp PTO pump. Asking \$8900. Call 1-517-727-9945.

JD 3300 COMBINE with 13' grain table. Good condition! Will divide, \$4900, OBO. NH 27 blower. Good condition! \$550, OBO. Call 1-616-891-9724.

JOHN DEERE 2140 tractor. 2300 hours, factory cab, air, front weights. Excellent condition! \$12,000. Call 1-616-223-7240.

VISA

1. Farm Machinery

2. Livestock Equipment

3. Farm Commodities

7. Dogs and Puppies

8. Ponies/Horses

9. Help Wanted

Address

City____

Check \$

Visa Card Number

Master Card Number

Desired Insertion Date(s):

4. Seeds

5. Livestock

6. Poultry

ATTENTION POTATO Farmers. For sale, Ag-Tec 30-04 air blast sprayer. John Deere 4020 tractor with cab, diesel and dual renotes. 15'

Farm Machinery

01

FEED GRINDER: New Holland 357, hydraulic auger. Good condition! \$2500. Call mornings between 9am-1:00pm. 1-616-821-2841.

disc. Call 1-616-754-6886.

FOR SALE: 2 row narrow snapper head for 892 NH or 900 NH chopper. Excellent condition, with everything you need to set up chopper for Earlage. \$2500 or best offer. Call 1-616-527-2957 after 7pm.

Call 1-800-968-3129

to Place Your Classified Ad Today!

or use the coupon below and mail your classified ad to Michigan Farm News

Buy Line/Daily News

P.O. Box 6

10. Work Wanted

14. Real Estate

16. Estate Sales

17. Auctions

11. Agricultural Services

13. Business Opportunities

12. Business Services

15. Real Estate Wanted

18. Antiques/Collectibles

Name_____Phone ()____

Classified Ad Code Requested _____ Number of Issues

01 **Farm Machinery**

1966 FORD F-600 with grain sides. 300, 6 cylinder, 4/2 Spd rear end hoist, good tires. Runs good! \$1600. Call 1-517-626-6355 between 7-10pm.

1966 FORD TANDEM dump truck. 391 gas, 5-speed, two speed rear, air brakes, upgraded with maxis. \$4,000 or best offer. 1-616-868-7464 270', 2" PIPELINE, 4 units, 5hp vacuum pump, 600 gallon bulk tank, new compressor. 14 Houle drink-ing cups. New Holland 1010 bale stacker. Evenings, 1-810-329-2740.

TWO KASTEN FORAGE wagons for sale. Eight ton gear, 9.50x15" tires. Call 1-517-669-9376.

19. General

20. Wanted To Buy

21. Special Events

24. Investors Wanted.

25. Building Supplies

26. Lawn And Garden

27. Announcements

28. To Give Away

Exp. Date

State Zip

22. Recreation

23. Financing

MasterCard

Farm Machinery

JOHN DEERE 4310 beet harvester. Completely rebuilt including the terris wheel. Owner has approximtely \$1000 in new and extra parts that will be included. \$8500. Contact Sue Kostal, 1-517-875-4181 work, 1-517-875-3912 home or Don Heimburger, 1-517-875-4923 home.

LILLISTON BEAN combine. Sun pickup, elevator cup leg, hi/low variable speed. Works great! Best offer. Dahlman potato harvester with belt and chain, \$10,000 or best offer. Excellent condition. 1-517-328-2110.

560 B INSLEY, \$8500. D6-9 User, Cat, \$5000. D7 for parts, \$500. Adams grader, no engine, \$300. G Allis Chalmers/mower, new engine, new tires, \$4000. 20 yard Wabco pan, 871 engine, \$4000. 1-517-866-2586.

MASSEY FERGUSON 4-row narrow corn head for sale. Model #1143. Call 1-517-587-4305 evenings, after 6pm preferred.

NEW AND USED irrigation and manure spreading equip-ment. Pumps, travelers, agitators, PVC and aluminum pipe. Call for listing. We deliver!

Plu 1-800-632-7731.

RAIN CONTROL Manure, drip and sprinkler irrigation systems. New and used available. For free product catalog, contact us at 1-517-263-5226. Fax, 1-517-263-6153. Adrian, MI.

USED VALLEY CENTER pivots and other makes with

related equipment. Call any time, toll free.

WHITE DIESEL 2-70: 1500 WHITE DIESEL 2-70: 1500 hours, \$8500. MF 17-disc grain drill, like new, \$1800. 6-row planter, 41 units, \$800. Miller 6-row cultivator, \$1100. Five-Tine V-Ripper, \$1100. Culti-Hoe, 6-row, \$250. 1-517-777-7955.



milk tank and compressor motors. Excellent condition! Call 1-517-732-5522. MANURE SPREADERS: New and used, Balzer, Better-Bilt parts. UPS daily. Also grain dryers and handling

equipment. 1-800-248-8070

SUNSET 1000 gallon bulk tank with compressors and washer for sale. \$3500. Call 1-616-672-5781.

05 Livestock

ANGUS BEEF: Bulls, heifers and cows with calves. Perfor-mance tested, semen tested. Free Delivery! Call anytime, Alto, Michigan

1-616-868-6040

EMU Chicks, yearlings and breed-ers. Great birds! Reasonably priced. Mirochipped and Vet certified. Boarding available. Support before and after sale.

Exquisite Emu's Belevielle, MI 48111 1-313-461-1362

FOR SALE: Registered polled hereford breeding age bulls, heifers, cows. Rocky Banner bloodlines. MSU performance tested. Call Rye Hereford Farm, 1-517-734-3005.

FOUR ALPINE milking does, two breeding bucks. Heathly, clean. Good producers! Four kids by side. Take all, \$500. Bellairs Hillside Farm 1-810-625-2665

HOLSTEIN HERD BULL for sale, (Young). Call 1-517-352-8170. LLAMAS: Pet males. Halter trained! Also available weanling and adult female

breeding stock. Great wool for hand spinners! Call 1-616-582-7473.

Horton Bay Ilama Charlevoix, MI

MINIATURE DONKEYS for sale. All ages available. Friendly, easy to care for, lovable. Registered stock! Call 1-313-878-6345. Cisco & Sons.

OSTRICH CHICKS Exceptional South African bloodlines available in all ages. Let us introduce you to America's newest agricultural industry.Blackwing Ostrich Ranches, 1-216-325-3456 or 1-708-541-4888

PUREBRED YORKSHIRE: Hampshire and F-1 Boars and Open Gilts. Also bred Gilt with Real Time scan data with percent of lean.

arvin Cook, 517-649-8988 QUALITY ANGUS BREED-ING STOCK Performance tested, Bulls semen tested. Free delivery. Also Border Collie Stock Dogs. Call today. Sturgis, MI 616-651-8353.

SCOTTISH HIGHLAND CATTLE: Registered, vari-ous age bulls for sale. 1994 calfs (heifers and bull avail-able in October). Call 1.517_543_7070 1-517-543-7979.

REGISTERED BELTED Galloway bull for sale, 12 months old August 4, 1994. Call 1-517-546-7730.



Livestock

SOYBEAN ROASTING feed right on your farm! High fat, high energy roasted soybeans. See the difference. We do other grains also. Short's Roasting 1-800-634-2368.

ROCKY MOUNTAIN ELK, HOCKY MOUNTAIN ELK, "Livestock of the Future". Whole herd tested. Taking deposits for 1994 calfs. Traverse City, MI. Imperial Elk Ranch 1-616-946-5922



FOR SALE: Emu Chicks and Yearlings. Reasonably priced. Parents produced more chicks than anticipated. Need new homes! J J Emu Ranch

1-512-972-3278



Blue Healer/Australian Shepherd puppies for sale. \$50 each. Call 1-517-967-8339 or 1-517-967-8319.



AVON \$\$ SALES AGENTS needed now! Choose your own hours, income and bene-fits. Average \$8-\$14 hourly selling at work or home. Territory optional 1-800-742-4738.





Exp. Date **Classified Rates**

Method of Payment

(payable to MIchigan Farm News Classified)

\$8 for up to 24 words

Stanton, MI 48888 Classified Ad Codes

30 cents each additional word

Write your ad here, including phone number and area code Deadline for next issue is August 19, 1994

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	. 27	28
29	30	31	32
33	34	35	36

Circulation over 46,000 in State of Michigan.

USED FREE STALLS: Loop style. 80 stalls at \$10 each. Used Burr Mill, \$300. Call 1-517-386-4835 evenings.



ALFALFA: Top quality! 800 bales, first cutting, \$2. Later cuttings will be available. Hay is stored in Ottawa County. Call 1-800-300-6184.

HAY/STRAW: Truck anywhere! 45 years of service. Call Raymond Oates, 1-517-286-6241 or 1-517-286-6871. Waldron, MI.

MALTED BARLEY: High moisture, off field or combined dry. 2,000 bushel. Available/ready about August Call 1-517-766-2446 or 1-517-766-8818.

Group Purchasing Rates!



Taylor WATERSTOVE This is the safest, most effi-

(BOC) cient wood heat system on the market today. Set Outside Non-Pressurized Provide 100% of house hold heat and hot water Stainless Steel Eliminates Corrosion **UL** Listed Thermostatic Control T&T Sales · 12 to 24 hr. Burn Time 2428 W. Saganing Road ******* Bentley, MI 48613

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PRE-OWNED EQUIPMENT

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- ATV Pull Type Sprayer

11 Agricultural Services

EXPERIENCED Michigan agribusiness attorneys with farm backgrounds. Know-ledge and experience in all tedge and experience in all farm areas; restructure, stray voltage, bankruptcy, estate planning. EAST SIDE: Thomas J. Budzynski, 43777 Groesbeck Hwy., Mt. Clemens, MI 48036, 313-463-5253; WEST SIDE: Bobat A. Strate, W Robert A. Stariha, 40 W Sheridan, Fremont, MI 49412, 616-924-3760.

OLD PRINTED MATERIAL: Pre-1950's magazines, newspapers, sheetmusic, postcards, calendars, post-ers, etc. Will pickup. Richard Harris, 715 Luce, Freemont, MI 49212. 1-616-924-6788. Save this ad!

SAVE MONEY Recycle your diesel and industrial air intake filters using the Sonic Dry Clean System. No liquids or deter-gents used. 50% savings over new filters.

> Holland, MI 1-616-396-7724 1-616-396-8102, Fax

STARTERS, alternators, generators. Rebuilt for cars, trucks and tractors. Diesel and heavy duty work. In business since 1970.

Armature Rewind and Rebuilding, Bay City. 1-517-686-3450



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Miller Spray Service 1-219-

Handyman Enterprises Decks, Additions Pole buildings Roofing & Siding Quality work at a fair price. Licensed & Insured Builder. Call 1-517-762-5254.

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2700 SQUARE FOOT office, work shop and warehouse for rent. Ideal research station!

14 **Real Estate**

FOUR FARMS: 100, 80, 79½, 40 acres. Hillsdale County, Michigan. No till drill. Call 1-517-869-2113. HILLSDALE COUNTY: 160

acres. Very secluded area. 91 acres tillable, remainder woods and shrubs. \$128,000. woods a (F-811) **Faust Real Estate**

Adrian, 1-517-263-8666 Call for brochure!



HUNTING LEASES WANTED: 80 acre parcels or larger, anywhere in Southern Michigan. 5,000 acres needed by 10-1-94. First come, first servel 1-616-561-2994, Monday-Friday, 8am-5pm.

LEASE PROPERTY WANTED: Three exper-ienced responsible Mid-Michigan hunters wish to lease Northern lower or South Central Michigan property for the 1994 Archery and possib-ly firearms Deer Season. Call 1-517-676-0486.



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projects. 1-517-291-5040.

PRESSURE TREATED fence posts, hi-tensile fence supplies. Installation crew

1-517-386-3517 1-517-386-2382

PROFESSIONAL HOOF trimming: Statewide! Over 14 years experience. Prices start at \$7. Call

General

4200 BUSHEL GRAIN storage bin. Good condition! You move. Best offer! Call 1-616-757-2106.

BUILDINGS: Canceled orders. Two Quonset Steel Arch Buildings, 41'x78' and 51'x90. Selling for balance owed. Brand new!

Call Larry at our factory, 1-800-866-2534. Serious inquiries please. Arch Building Systems, Inc.

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years practice representing Michigan family farmers. Specializing in reorganiza-tion! Experienced in many agricultural issues, including PA116 requests.

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INTRODUCTORY OFFER: \$60 per ton; animal bedding made from recycled news paper, chopped not shred-ded. More absorbent-less flies-less odor. 70# bales.

1-517-876-6051 Turner, MI

HARDY OUTSIDE WOOD FURNACE: Worlds #1 seller. All stainless

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mess, odor. 1-800-743-5883 Distributor

STRAW CHOPPERS: We rebuild and balance. Some exchanges. We stock chopper parts. ENGINE REBUILDING our specialty. Auto-Truck-Tractor-Antique-Continental-Kohler-Onan-Wisconsin engine dealer.

HART'S AUTO PARTS Cecil, Ohio 419-399-4777

TRAILER AXLES: 2 to 7000# Torflex rubber rides. Also, dual wheel buggy sprung 9 to 1500# capacity. Call



August 15, 1994

SAWDUST DELIVERIES: Clean, dry animal bedding. Can haul up to 30 yard loads. Call for reasonable rates and delivery area. 1-616-696-1421.



BUYERS OF STANDING timber and veneer logs. Pewamo, MI. Call 1-517-593-2552.

Central Michigan Metals Buyers of all grades of scrap metal. Call Kevin Ferguson, 1-517-386-2409 or 1-800-835-1170. 1215 East Maple Road,

Clare, MI 48617

WANTED: Old motorcyles, snowmobile and off road vehi-cles. 1965 and older. Call JD, 1-517-876-0583.



GREAT LAKES CHAPTER American Ostrich Association invites you to attend their Seminar, October 8-9, Radis-son Plaza Hotel, Kalamazoo, MI. Exhibitors Seminar Raffle Auction, Ostrich meat for dinner. For rates call, Barbara Smith, 1-517-732-2514, Derrick Borup, 1-616-642-9134.

Singles in Agriculture 1994 Campout. August 18-20 at Shaw-Waw-Nas-See 4-H Camp, Manteno, Illinois. Other upcoming events in lowa, Missouri, Nebraska, Kansas and Texas. Contact SIA, PO Box 7, Pearl City, Illinois, 61062. Call 1-815-443-2002.



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336 ACRE Grade A Dairy farm for sale. 270 tillable acres, wood lot and creek. acres, wood lot and creek. Double four Herringbone parlor. Slurry store. 30 miles north of Grand Rapids in Newaygo County. 1-616-834-8383 or 1-616-834-5580.

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August 15, 1994



MSU's Horticulture Department Focused on the Future

A garden of opportunities is found in the Department of Horticulture at Michigan State University, and an extensive career list is available to those interested in food production and

According to Dr. Wayne Loescher, professor and chairman for the Department of Horticulture, the programs offered are among the tops in the nation. "Evaluations done by outside horticulturalists continually rank Michigan State in the top three across the nation for the horticulture programs offered," he notes.

The production aspect of horticulture prepares students in the science and management of vegetable and fruit products. Courses available include horticulture management, plant genetics and entomology. According to Joseph Mosabni, a graduate student in the department, "I was impressed with the facilities here at Michigan State; it has the staff that is respected throughout the world, and the field and laboratory facilities to back up that recognition."

Through involvement in horticulture, students have the opportunity to meet people from



industry, which may lead to future employment. Students in horticulture are required to have an internship experience before graduation.

"Our department has worked with the industry for a long time, and that provides students more accessibility to industry," said Loescher. Internships often can turn into full time positions, giving the person a chance to work in a career before making a permanent decision.

The department offers working scholarships for students needing to gain experience. These scholarships allow students to experience research and Extension opportunities with a member of the faculty, and provide them with a paycheck.

This gives students a chance to work in an environment that is continually improving to meet the needs of the horticultural producers. The department also offers a number of scholarships that award students for achievements and lessen some of the tuition burden.

The College of Agriculture and Natural Resources and its Department of Horticulture also offer opportunities outside the United States. Lifestyles and cultures from other countries are difficult to experience in the classroom.

"Not only did I learn about many aspects of horticulture during my stay, but I also had the chance to observe the culture of Dutch society," said Erica Bergman, a senior who was able to work with Pan American Seed in the Netherlands. Invaluable knowledge can be gained through overseas study programs, foreign exchanges with other universities, and work experiences such as the one Bergman experienced.

Job placement is excellent within horticultural production. According to Loescher, "Starting salaries range from \$22,000 to \$30,000 with 100 percent placement of our graduates."

The department sets high goals for itself, and, more importantly, for its students. The faculty believes educating and preparing the horticulture students for a world where the demand for food is ever-growing is the number-one priority. The faculty and staff are there to help set student schedules, discuss possible job opportunities, or just talk. "Our department is particularly strong in faculty accessibility," says Loescher.

Students have a chance to become members of one of the most active clubs in the College of Agriculture and Natural Resources, the Horticulture Club. The club, which also involves faculty and staff, is recognized as being active in the progression of fruit, vegetable and plant development. Participants in the Hort Club are involved in various college activities, such as Small Animals Day and the Ag Olympics, as well as numerous programs in the horticultural industry. What is available in horticultural production careers? Marketing positions, including commodity brokering, commodity inspection, and inventory management; service careers in production, which offers involvement in field and business consulting, and lobbying, where laws and regulations concerning fruit and vegetable production are negotiated.



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Research can involve product development, such as manipulating plant genetics through biotechnology and innovations in sustainable agriculture.

The four-year and two-year programs offered in the Department of Horticulture are highly recognized worldwide, with a curriculum, faculty and staff providing students with knowledge and experience for worthwhile careers.