

MICHIGAN FARM NEWS



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Pine Shoot Beetle Discovery Results in Quarantine

Photo: U.S. Forestry Service

The first-ever discovery of the pine shoot beetle in a pine tree growing area caused the Michigan Department of Agriculture to issue an "internal quarantine" for Monroe County Christmas trees, effective Oct. 14. The quarantine requires a visual inspection by MDA before trees can be shipped out of county, according to Ken Rauscher, in MDA's Plant/Pest Management Division.

The quarantine resulted after discovery of the pine shoot beetle in early July on a pine tree plantation near Cleveland, Ohio. The USDA then launched an intensive inspection in several adjoining states to determine how widespread the pine shoot beetle infestation had become.

Unfortunately, the beetle was found in several counties in New York, Pennsylvania, northern Indiana, northeastern Ohio, and one county in Illinois just west of Chicago, as well as Monroe County. In lieu of a statewide quarantine, USDA offered MDA the option of implementing an internal quarantine to limit just Monroe County as opposed to the entire state of Michigan.

"We (MDA) decided to implement an internal quarantine for Monroe County, which will allow shippers from around the rest of the state to continue shipping nursery stock, and Christmas trees," explained Rauscher. "USDA is concerned with what could happen if this pest is allowed to move into the southern and western pine growing areas of the country."

There are 20 pine tree growers in Monroe County that will be impacted by the quarantine, most of whom operate U-cut Christmas tree operations. A majority of their market is in the Detroit and Toledo area, says Rauscher, which will require MDA inspection of the tree before it can be transported outside of Monroe County.

The pine shoot beetle, a well-known and feared pest in Europe, likely found its way into the U.S. via pallets and bracing used in shipping imported products. Rauscher estimates the beetle had been discovered nearly 100 times in the last five years at ports of entry into the U.S. and was destroyed by burning the wood products immediately.

Although the beetle won't kill the tree, except in severe infestations, it does cause disfigurement. "The adult bores into the current year's growth, and then bores up the tree's shoot, causing the shoot to tip down and die, distorting the shape of the tree," said Rauscher.

The reproductive stage of the beetle occurs just under the bark of the tree where eggs are laid. The larvae stage of the beetle is spent under the bark, meaning that logs and lumber with bark still attached, provides an ideal vehicle for transporting the beetle into uninfested areas.

Methods to control the beetle are limited to fumigation with methyl bromide of logs and lumber. The USDA is researching other control options, including freezing since it's suspected the insect can't survive below -5 F. Despite that theory, the beetle can easily over-winter in Michigan, said Rauscher. "The beetle over-winters at the base of the tree as an adult, under bark flaps which are also under snowcover, so the temperature may very well be above -5 F degrees" said Rauscher. "It's demonstrated its ability to survive in Europe in areas much colder than Michigan."

The beetle can fly up to a half mile seeking out any kind of pine to feed on, making it difficult to limit movement of the beetle entirely. With no means of chemical con-

rol, Rauscher advises tree growers to keep their operations clean of scrap that could provide breeding sites for the beetle.

"One of the things that's practiced very intently in Europe is sanitation, and that means getting rid of any kind of cut logs, slash piles, and/or cut stumps," explained Rauscher. "It's not only promoted, it's legislated in Europe that those items are cleaned out and removed. It's very stringently regulated, especially in Scandinavia."

This cut-away view of an infested Scotch pine shoot shows an adult beetle feeding inside the shoot. The white spot is the point of entrance into the shoot.



Chinese Extension Delegation in Michigan

Two of the world's biggest communist party systems have experienced change. Russia went about it at a pace that shocked even the most optimistic. China is undergoing a much more subtle transformation, but it is change nonetheless. It all started 10 years ago in China and it's accelerating rapidly on a daily basis. It's allowing joint ventures to take place. It's allowing more freedoms in decision making at the farm level. It's improving the standard of living and the diets of the Chinese people.

Sixteen Extension specialists from the National Agriculture Technological Extension Center in China spent 20 days in Michigan, looking at the MSU Cooperative Extension Service's structure and relationship with agricultural producers, in an effort to tap into some of our democratic methods, according to MSU Agriculture and Extension Education Professor, Dr. Frank Brewer.

Their impression of Michigan agriculture? "Big - very big, much bigger than Chinese agriculture," said Nie Chung, deputy division chief in the Chinese National Agriculture Technological Center and interpreter for the group. "Your farmers use many large pieces of farm equipment - that's different from China."

How different? According to Chung, the average Chinese farm is just one hectare (roughly 2-1/2 acres), a majority of the farming is still done by hand, and the average dairy farm consists of 10 cows. Despite those facts, Chinese agricultural production has nearly doubled in the last 10 years, thanks in large part to major reform efforts,

that should remind all of us about the merits of free-enterprise.

"Ten years ago, we adopted the household responsibility system, which means that each farmer can get land from the state and they have the right to decide which crop to plant," explained Chung. "That is why the Chinese can produce enough food for our people to eat and still export food products to the U.S.S.R. and other countries."

Just how much trade may surprise many. China's trade surplus with the U.S. this year is expected to top \$20 billion. A recent trade agreement between China and the U.S. will eliminate China's import licensing requirements, quotas, and other trade barriers over the next five years, averting the threat of a trade war between the two countries.

See "Chinese Delegation" continued on page 8

While in Michigan, the Chinese delegation toured the Michigan Farm Bureau and met with several staff members to discuss Farm Bureau's structure and operation. Pictured with the group is MFB Administrator Chuck Burkett and MSU Professor Dr. Frank Brewer (third and second from right, respectively, front row).



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Focus on Future and Land Grant Philosophy – A Must in New MSU President

The Michigan State University Board of Trustees is beginning the process of selecting a new president for MSU. We, as farmers, think it's critically important that the board hires someone who understands and vigorously supports the land grant philosophy.

After all, MSU was the pioneer land grant university. It was a leader back in 1855 in advancing the then-radical land grant concept that college research and teaching should be available to all people, not just the elite. MSU needs to continue to be a land grant leader in the future so that farmers, and all Michigan citizens will be able to cope with an increasingly interrelated and competitive world economy.

The future of a healthy agricultural economy in Michigan is vitally dependent upon a growth-focused teaching, research and extension mission at MSU. The university needs to continue to lead the nation in developing improved marketing techniques, new uses for existing commodities, new and improved varieties, innovative machinery, workable environmental solutions and improved (and profitable) integrated pest control measures.

Other crucial issues facing a new president include:

- **Rising costs.** It's becoming more expensive every year to attend MSU. Tuition and other fees have been rising much faster than inflation. The new president has the difficult task of aggressively holding down costs while upgrading the quality of education.

- **A focused mission.** With limited resources, it is important to focus in particular on MSU's rich and unique history of providing agricultural education. MSU must realize that it can't be all things to all people. Young people can get a college education at many places in the state, but an agricultural university education is available only at MSU.

- **Support for the Agricultural Experiment Station and the Cooperative Extension Service.** The new president needs to be sensitive to the unique features of these programs. They are not tuition supported and need special consideration for general university support.

- **Communications.** Years ago, MSU was a pioneer in using television technology to provide education and extension information to the agricultural community. Creative use of modern technology is important to our future communication needs.

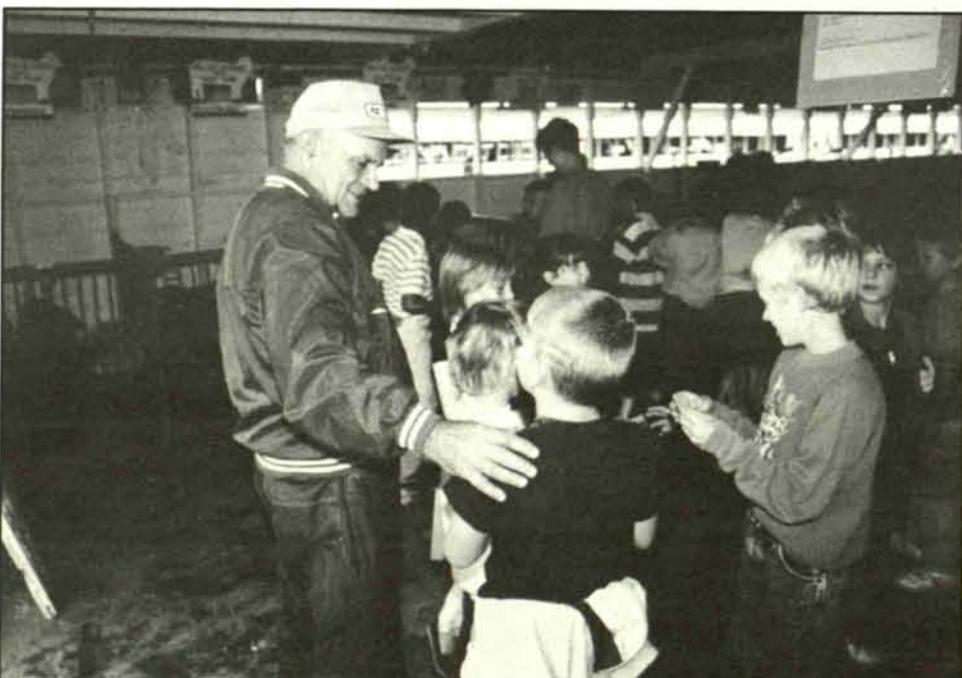
- **Animal agriculture.** The Board of Trustees is aggressively supporting the animal industry initiative. We recognize the university has other pressing needs, like a new library. But money for the animal industry initiative has been committed by the governor and Legislature. The new president needs to keep this project on track.

The general news media often focus on issues at MSU, such as athletic success, that are trivial in affecting the future of our agricultural industry. I hope that a clear focus by the Board of Trustees on the real concerns of Michigan farmers will yield a new president who can make a positive difference in how the university affects our way of life.

Jack Laurie

Jack Laurie, President
Michigan Farm Bureau

St Joseph County Ag-Citing Experience a Success!



Over 800 children and 80 adults participated in an "Ag-Citing Experience" recently, thanks to the efforts of the St. Joseph County Farm Bureau, Fair Board, and the MSU Cooperative Extension Service. A total of 57 volunteers served as tour guides, made presentations, drove tractors for hayrides, and answered questions from elementary students. Eleven organizations and businesses donated material for the project which lasted over three days. Above, St. Joseph County Farm Bureau President Vern Happel answers questions from one of the many third graders about sheep.

In Brief...

Special Alert – MUSTCOM \$50 Surcharge and Letter a Scam!

The Michigan State Police Fire Marshall Division is alerting owners of underground storage tanks about payment requests from the Michigan Underground Tank Commission (MUSTCOM), UST Compliance Section. These payment requests have been received by many Michigan underground storage tank owners, instructing them to pay a surcharge of \$50 per tank, and indicating that if owners fail to pay, they will jeopardize their MUSTCOM site clean-up funding.

State Police say that MUSTCOM is not a governmental agency. Furthermore, refusal to pay the requested surcharge will not affect legitimate underground storage tank registrations on file with the State Police Fire Marshall Division. Refusal to pay the surcharge will not affect access to the Michigan Underground Storage Tank Financial Assurance fund (MUSTFA), operated by the Michigan Department of Management and Budget.

Capt. Wade E. Schafer, State Fire Marshal, indicates that State Police investigators, in cooperation with the office of the Attorney General, the Department of Management and Budget, and the U.S. Postal Service are looking into this matter for any violation of the law.

Persons with information which may assist this investigation are asked to call 1-800-827-8277. This toll-free number was established so that other telephone lines remain available for regular program needs of Michigan's underground storage tank owners.

USDA Raises Crop Estimates

As expected, the USDA raised its estimate of corn, soybean, and wheat crops for the year and adjusted the amounts of each expected to be on hand when the 1992-1993 marketing year ends. The agency pegged the corn crop at a record-high 8.938 billion bushels, soybeans at 2.108 billion bushels and wheat at 3.459 billion, all slightly above the September estimates. The USDA based its predictions on the expectation of record setting per acre yields of 124 bushels for corn and 36 bushels for soybeans.

USDA figures there will be 308 million bushels of soybeans left on hand at the end of 1992-1993, up from 278 million this year. Corn carryover is estimated at 1.864 billion bushels, wheat at 573 million, and cotton at 4 million bales. See page 6 in this issue for MSU Ag Economist Jim Hilker's interpretation, and the latest supply/demand reports.

ConAgra/Berger and Klein Brothers Limited Merge

ConAgra/Berger and Klein Brothers, Limited, based in California, have announced their intention to merge, effectively forming the largest bean handling company in the world. All pieces of the new company will reportedly continue to operate as they have, at least through the balance of harvest, but it would seem reasonable that within the next few months all parts will be brought under the same umbrella.

This merger continues the trend established about 15 years ago toward fewer and larger dry bean handlers. This mirrors the same trend in the canning and packaging business. Twenty years ago, there were literally hundreds of independent processors and canners, but through mergers and acquisitions, the numbers active in each field have dwindled to a handful.

Vegetable Chemical Use Survey Underway

A major Vegetable Chemical Use Survey was started Oct. 16, and will continue through mid-December, according to the Federal/State Michigan Agricultural Statistics Service (MASS). The survey has the support of most major Michigan vegetable organizations and growers are encouraged to participate.

This survey is part of the President's Food Safety Initiative, which is a multi-agency program addressing recent public concerns about the safety of the nation's food supply. One of the U.S. Department of Agriculture's roles in this initiative is the Pesticide Data Program. The successful 1990 Vegetable Chemical Use Survey was the start of this program. An every other year rotation is planned between vegetables and fruit chemical use.

The primary objective of this program is to provide data to develop an agricultural chemical use data base that is timely, detailed and reliable. Statistics are needed to assemble chemical use information to help address both water quality and food safety issues. The program is intended to strengthen the government's ability to respond to pesticide and food safety concerns and to protect the public health.

In Michigan, about 1,000 vegetable growers will be asked to participate in the survey. All growers will be interviewed personally. Data collected will be treated confidentially and used only in the summary of state and national totals. A final report of the vegetable chemical use data is scheduled for release in June of 1993.

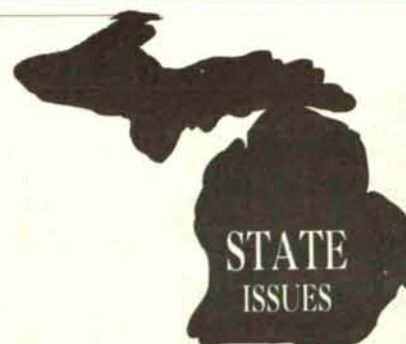
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The 102nd Congress Adjourns

On Oct. 9, the 102nd Congress officially adjourned. There will be no legislation considered during the remainder of this year. Therefore, Capitol Corner will not be reporting any national legislative developments until the new 103rd Congress convenes in mid-January 1993.

Health Insurance Tax Deduction

MFB Position: Farm Bureau strongly supported continuation of the tax deduction for health insurance premiums paid by the self-employed and increasing it to 100 percent.

MFB Contact: Al Almy, Ext. 2040

Both the House and Senate passed different versions of a bill containing several tax exemptions and also imposing several billion dollars of higher taxes. Among the provisions in the House version, H.R. 11, was a continuation of the current 25 percent deduction for the cost of health insurance premiums paid by self-employed persons, which had expired June 30.

The Senate version would allow self-employed persons to deduct 100 percent of the cost of their health insurance premiums as a business expense. However, when a conference committee met to resolve this difference and others between the two versions, it was decided to extend the current 25 percent deduction for 18 months. The legislation has been sent to President Bush for signing into law.

Loans for Beginning Farmers

MFB Position: Farm Bureau supported the passage of H.R. 6129.

MFB Contact: Al Almy, Ext. 2040

Legislation awaiting President Bush's signature, H.R. 6129, is designed to attract more young people into farming by easing some restrictions for direct and guaranteed loans from the Farmers Home Administration (FmHA).

A new farmer who draws up a sound 10-year plan would be eligible for FmHA approved operating loans for that period, with annual reviews to assure the money was being spent effectively. The bill also establishes a new down payment loan program to help purchase farmland. It authorizes low-interest 10-year loans for up to 30 percent of the land's purchase price for the down payment.

In other provisions, the bill limits how long farmers can get operating loans from FmHA. It limits farmers to a total of 15 years in the FmHA program, with 10 years of direct loans and 5 years of guaranteed loans. President Bush has indicated he will sign the bill.

Workers' Compensation - Adams Fruit Case

MFB Position: MFB Policy reads: "We support efforts by the American Farm Bureau Federation to correct the Migrant and Seasonal Agriculture Worker Protection Act, which does not recognize the "Exclusive Remedy" provision of state Worker Compensation laws. Federal legislation is needed to overturn the effects of the U.S. Supreme Court's decision in the Adams Fruit Case, which makes the migrant and seasonal workers the only employees eligible to receive benefits from both the courts, through tort lawsuits, and workers' compensation insurance."

MFB, and many other state Farm Bureaus joined with AFBF and other interested groups to form the Workers' Compensation Integrity, Stability and Equity coalition, (WISE).

MFB Contact: Howard Kelly, Ext. 2044

Since the U.S. Supreme Court's 1990 decision in Adams Fruit Co., Inc. v Barrett, a migrant or seasonal employee may receive workers' compensation benefits and also sue his or her employer in court for additional damages. The case stems from a 1985 incident in Florida, when 19 migrant workers employed by Adams Fruit Farm were transported to the fields in a single van, a violation of the Migrant and Seasonal Worker Protection Act - MSWPA. After an accident, all of the injured employees received health and income benefits under workers compensation. In addition, some of the workers sued Adams Fruit for motor safety violations under MSWPA.

The controversial ruling overturned a longstanding policy of workers' compensation being the exclusive source of remedy for losses caused by workplace injury or death. The Supreme Court, in effect, said that if Congress had intended workers compensation to be the exclusive remedy, they should have said so in the MSWPA law. Farm Bureau immediately sought corrective legislation to amend the Migrant and Seasonal Worker Protection Act.

AFBF and others were successful in getting an amendment on a bill in the last days of the 102nd Congress. House Resolution 5427, the Fiscal Year 1993 Legislative Branch Appropriations Bill, contained the amendment, which was approved by Congress and signed by the president Oct. 6, 1992.

The amendment clearly states that workers' compensation is the exclusive remedy for work-related injuries. It states: (1) Notwithstanding any other provision of this Act, where a state workers' compensation law is applicable and coverage is provided for a migrant or seasonal agricultural worker, the workers' compensation benefits shall be the exclusive remedy for loss of such worker under this Act in the case of bodily injury or death.

The reversal is not permanent, and will sunset in nine months. Efforts will be made to convince the 103rd Congress to enact a permanent statute before the Fall of 1993.

Pseudorabies Control & Eradication

MFB Position: Farm Bureau supports S.B. 1112 and the process of eradication of pseudorabies so Michigan can eventually be designated as a disease-free state to allow movement of hogs between Michigan and other disease-free states. The bill has passed the Senate and is waiting final action on the House floor.

MFB CONTACT: Ron Nelson, Ext. 2043

Senate Bill 1112, sponsored by Sen. Wartner (R-Portage), adopts the Federal Pseudorabies Eradication Program. Michigan currently tests and vaccinates for pseudorabies. S.B. 1112 would give the Michigan Department of Agriculture more authority and responsibility to both test and control the movement of the disease through quarantine of infected herds. The federal program consists of a five stage effort. Michigan currently is in the third stage where the disease is substantially under control, but is not being eradicated.

Pseudorabies is contagious within the swine population and when transmitted to other species, such as cattle or sheep, it usually results in the death of the infected victim. As a dead end host, other species do not transmit pseudorabies. The disease poses no threat to human health.

Currently, producers retain private veterinarians for the testing and vaccination, which will continue. State funding will be available for additional surveillance efforts on the part of MDA veterinarians to ensure every herd in the state is tested and quarantined if infection is confirmed.

Pasteurized Milk Ordinance (PMO)

MFB Position: Farm Bureau supports H.B. 5990. Adoption of this bill is important to Michigan producers to permit the export of milk from Michigan to other states.

MFB Contact: Ron Nelson, Ext. 2043

House Bill 5990 and S.B. 1058 would amend the Fluid Milk Act of 1965 and adopt the 1989 edition of the Grade A Pasteurized Milk Ordinance (PMO). In addition, the bills would increase the license fee for milk haulers from \$10 to \$20, clarify the bonding requirements by requiring a surety bond for milk buyers and provides additional protection for their solvency. The MDA is given the authority to revoke the license of any milk plant that does not provide one of the security arrangements provided for. Violations for residue in milk are clarified and the penalty for violations is also increased. The maximum milk temperature on farms is reduced from 50 to 45 F.

Currently S.B. 1058 is in the Senate Ag Committee where several amendments have been attached. The amendment for Over Order Pricing was adopted and included Over Order Premium for Class 1 milk not to exceed \$1.25. The Marketing Committee which recommends the price to the director of agriculture would consist of nine members appointed by the governor from nominations. One individual will represent dealers, one the general public, and the other seven will represent dairy producers, including one not representing any cooperative. In determining the Over Order Premium, the committee shall consider price being paid by dealers, the cost of production, prices paid in other adjoining states, and concerns of the general public.

This enabling legislation would be enacted upon a written petition signed by 35 percent of the milk producers and a successful referendum, if more than 50 percent of those voting, which represents more than 50 percent of the production, voted in favor of a statutory premium. The same process would hold for terminating the Over Order Premium.

Limitation of Passengers in the Open Bed of a Pickup

MFB Position: Farm Bureau supports H.B. 5044. The legislation is currently awaiting concurrence by the full House and Senate.

MFB Contact: Ron Nelson, Ext. 2043

House Bill 5044 would limit transporting passengers in the open bed of a pickup to work related activities. Cities, townships, and villages with populations of less than 30,000 would be exempt from the restriction.

The bill would also prohibit riding in the back of a pickup on any freeway at any time including those passing through such cities, villages, and townships with populations less than 30,000. An exemption has been included in the bill to permit riding in the back of a pickup for all farm related activities for family members and employees.

Removal of Animal Carcasses from Roadsides

MFB Position MFB Supports H.B. 5642

MFB Contact: Darcy Cypher, Ext. 2048

House Bill 5642, sponsored by Rep. Bender (R - Middleville), requires the Department of Natural Resources to be responsible for removal of deer, bear, elk and moose carcasses from roadsides. Because the present law does not clearly state responsibility, many county road commissions, by default, are having to remove and dispose of these carcasses. Even though counties are not receiving funds to remove carcasses from roadsides, cleanup is estimated to cost some counties as much as \$96,000 annually.

MFB policy supports requiring the Department of Natural Resources to be responsible for removal of large animal carcasses from along roadways and right-of-ways.

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Weather

Cooler than normal temperatures persisted during the past 30 days in all but northern sections of the state, where readings averaged near to slightly above normal. Similarly, precipitation totals were above normal over nearly all of the Lower Peninsula and sections of the Upper Peninsula. This unfavorable mixture of conditions caused lengthy harvest delays in some areas. While many central and northern sections of the state experienced killing freeze back in late September, crops in southern Lower Michigan continued on into mid-October without frost, especially in southeastern areas. Even so, all important heat accumulations during the period were only in the 125-275 unit range.

The outlook for the coming weeks is not promising. The latest 30-day outlook from the National Weather Service calls for a jetstream troughing pattern to persist over the Upper Midwest through mid-November, and possibly longer. This would likely lead to frequent outbreaks of cold, arctic air, and put Michigan along a southwest to northeasterly storm track. The outlook specifically calls for a continuation of below normal temperatures and above normal precipitation.

Expect Below Normal Temps and Above Normal Precip.

9/16/92 to 10/15/92	Temperature		Growing Degree Days		Precipitation	
	Observed Mean	Dev. From Normal	Actual Accum.	Normal Accum.	Actual (inch.)	Normal (inch.)
Alpena	52.0	-0.5	1659	2115	3.80	3.12
Bad Axe	53.5	-2.9	1932	2568	4.10	2.77
Detroit	56.8	-0.9	2529	2808	3.02	2.55
Escanaba	52.7	+0.3	1445	1668	1.85	3.07
Flint	53.8	-0.2	2361	2808	3.59	2.55
Grand Rapids	55.2	-0.6	2344	2868	4.55	3.44
Houghton	50.7	-0.3	1489	1911	3.49	2.94
Houghton Lake	52.5	-0.7	1854	2115	4.28	3.12
Jackson	55.7	-2.3	2309	2788	3.89	2.95
Lansing	55.0	-1.1	2242	2788	3.23	2.95
Marquette	49.9	+1.3	1423	1911	1.84	2.94
Muskegon	55.5	-0.8	2137	2440	3.66	3.21
Pellston	52.0	+1.0	1737	2194	5.57	3.38
Saginaw	54.3	-2.1	2230	2568	3.79	2.77
Sault Ste. Marie	50.8	+0.6	1350	1668	4.02	3.07
South Bend	57.8	-0.6	2682	2868	3.86	3.44
Traverse City	54.1	-1.5	2301	2194	3.86	3.38
Vestaburg	52.8	-3.4	2077	2516	4.27	3.11

Observed and normal growing degree day totals are accumulated from March 1. Normals are based on district average. **Jeff Andresen, Ag Meteorologist, MSU**

Given such an outlook, full advantage should be taken of any harvest weather "windows of opportunity."

Harvest on Hold Across Michigan and Cornbelt

Michigan and Major Commodity Area Extended Weather Outlook

T - Temp.	10/30...	11/15	10/15.....	12/31
P - Precip.	T.....P	T.....P	T.....P	T.....P
Michigan	B.....A	B.....A	B.....A	B.....A
W. Corn Belt	B.....A	B.....A	B.....A	B.....A
E. Corn Belt	B.....N	B.....A	B.....A	B.....A
Wint. Wheat Belt	B.....N	B.....A	B.....A	B.....A
Spr. Wheat Belt	B.....N/A	B.....N	B.....N	B.....N
Pac. NW Wheat	B.....N	N.....B	N.....B	N.....B
Delta	B.....A	B.....A	B.....A	B.....A
Southeast	N.....N	N.....A	N.....A	N.....A
San Joaquin	A.....B	A.....N	A.....N	A.....N

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

Michigan
Harvest activity in Michigan had been brought to a standstill with considerable rain and some snow across most parts of Michigan. Statewide, corn harvest as of Oct. 19, was reported only 5 percent complete compared to 50 percent last year, and 30 percent on average. Many farmers were still waiting for significant reductions in moisture levels before harvesting corn, which was rated only 50 percent mature compared to 95 percent on average.

Soybeans were rated 80 percent mature compared to 95 percent on average, with harvest reported 20 percent complete - well behind the five-year average of 45 percent. Dry bean harvest was 90 percent complete and was rated 65 percent fair to good.

Potato harvest was 90 percent complete in spite of the rain and cold. Sugarbeet harvest had been stalled as well, with 30 percent of the harvest complete compared to 25 percent on average. Winter wheat planting was 70 percent complete, with concerns growing that considerable acreage may not get planted due to late harvests.

Apple harvest in Southwest Michigan was nearly 66 percent complete, but was slowed by rains and freezing temperatures. Concord grape harvest was slowed by freezing temperatures as well. Many growers had been waiting for better sugar content in grapes before beginning harvest. Grape damage due to the freeze had not been determined as of press time.

Most vegetable harvest had been nearly completed. Cabbage and cauliflower were being harvested as weather permitted. Onions and carrots continued to be harvested in some areas of the state. Freezing temperatures Oct. 17 and 18 brought an end to the fresh market tomato harvest.

Ohio
Corn harvest was behind average as of Oct. 19, as heavy rains soaked topsoils and kept producers out of the fields, the Ohio Agricultural Statistics Service reported. Only 10 percent of the total corn acreage was harvested, compared with 75 percent a year ago and the 41 percent average. Corn was rated 25 percent excellent, 49 percent good, 21 percent fair, 4 percent poor and 1 percent very poor. Corn standing in water was a big concern for farmers, who said it will be another 10 to 14 days before their corn was harvested. The average moisture level was 27.4 percent. Harvesting of corn for silage is coming to an end.

Soybean harvest was 65 percent complete, versus 84 percent a year ago and the 62 percent average. Soybeans were rated 19 percent excellent, 47 percent good, 26 percent fair, 6 percent poor and 2 percent very poor. The recent wet weather has kept soybeans "puffy" with some farmers reporting moisture levels at 17 percent.

See "Harvest Progress," page 5



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	12:15 pm
WATZ	Alpena	1450	5:30 am	12:15 pm
WPZA	Ann Arbor	1050	6:15 am	12:05 pm
WLEW	Bad Axe	1340	6:30 am	12:50 pm
WHFB	Benton Harbor	1060	*	12:30 pm
WKYO	Caro	1360	6:15 am	12:45 pm
WTVB	Coldwater	1590	5:45 am	***
WDOW	Dowagiac	1440	6:15 am	12:15 pm
WACY	Fenton	1160	6:15 am	12:15 pm
WGHN	Grand Haven	1370/92.1	5:45 am	12:15 pm
WPLB	Greenville	1380	6:15 am	12:45 pm
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	**	12:15 pm
WJIM	Lansing	1250	5:05 am	12:15 pm
WWGZ	Lapeer	1530	*	12:15 pm
WNBY	Newberry	92.5		12:15 pm
WOAP	Owosso	1080	6:15 am	12:30 pm
WHAK	Rogers City	960	7:10 am	12:15 pm
WSJ	St. Johns	1580	6:15 am	12:15 pm
WMLM	St. Louis	1540	6:06 am	12:20 pm
WSGW	Saginaw	790	5:55 am	12:15 pm
WMIC	Sandusky	660	6:15 am	12:45 pm
WKZC	Scottville	95.9	5:45 am	12:30 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	12:40 pm

* Station signs on at different times during the year. Morning farm times change with sign-on times.

** Station airs various farm reports between 5:50 and 6:20 pm.

*** Station airs various farm reports between 12:00 and 1:00 pm.

Some stations carry additional market reports throughout the market day.



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Michigan Groundwater and Freshwater Protection Act

Senate Bill 1199, sponsored by Sen. McManus (R-Traverse City), would provide for the protection of groundwater from contamination by pesticides and fertilizers through the development and implementation of a pesticide and fertilizer management strategy for the state, according to MFB Legislative Counsel Vicki Pontz.

"It would regulate the use of certain pesticides and fertilizers in order to prevent adverse effects to human health and the environment, and to protect the state's groundwater resource," said Pontz.

The bill requires MDA to develop and promote groundwater stewardship practices designed to prevent the contamination of groundwater. MDA would also develop a voluntary on-site evaluation system designed to provide farmers with the ability to voluntarily determine the relative groundwater impact potential posed by their use of pesticides and nitrogen fertilizers.

A groundwater advisory council would be established to provide educational programs on groundwater protection and coordinate technical assistance programs for farmers making changes consistent with the groundwater stewardship practices. Regional groundwater stewardship teams

"Harvest Progress"

Winter wheat planting was 70 percent complete, compared with 45 percent a week ago, 82 percent a year ago and the 65 percent average.

Indiana

Corn harvest progress was slow as of Oct. 19, because the moisture content of the grain remained at high levels, the Indiana Agricultural Statistics Service said. Corn harvest stood at 19 percent complete, compared with 85 percent a year ago and 53 percent on average. Corn was rated 17 percent excellent, 69 percent good and 14 percent fair.

Seventy-five percent of the soybean crop had been harvested, compared with 85 percent a year ago and 65 percent on average. Soybeans were rated 12 percent excellent, 70 percent good, 17 percent fair and 1 percent poor. Seventy-percent of the wheat acreage had been seeded, down from 86 percent a year ago and 81 percent on average.

Illinois

Soybean harvesting was active, but corn combining remained slow as of Oct. 19, the Illinois Agricultural Statistics Service said. Soybean harvest was 81 percent complete, compared with 92 percent a year ago and 82 percent average.

Corn harvest was only 26 percent complete, compared with 93 percent a year ago and 72 percent average. Sorghum harvest was 45 percent complete, compared with 82 percent a year ago and 65 percent average. Winter wheat seeding was 78 percent complete, compared with 81 percent a year ago and 73 percent average.

Iowa

Harvesting in Iowa was making slow progress as of Oct. 19, according to the Iowa Agricultural Statistics Service. Moisture levels ranged from mid-20 to mid-30 percent, allowing only 14 percent of the corn to be harvested, behind last year's figure of 62 percent and the average of 69 percent.

Soybean harvest in most areas was nearing completion, with 82 percent of the soybean crop harvested, compared with 88 percent last year and the average of 92 percent. Soybean yields were very high except in some areas of south-central Iowa that experienced heavy flooding. The winter wheat crop was sown on 73 percent of the intended acreage, compared with 83 percent last year and the average of 93 percent.

may also be established to implement programs developed under the act.

"Those farmers participating in the groundwater stewardship program would be eligible to receive grants for making changes consistent with the stewardship practices," explained Pontz. "Liability for groundwater contamination would not be imposed on a person in the groundwater stewardship program unless he was grossly negligent, or in violation of state or federal law."

A freshwater protection fund would be created through the collection of groundwater protection fees from chemical registrants. Specialty (non-farm) pesticide registrants would pay \$100 per product per year. All other pesticide (agriculture) registrants would pay 0.75 percent of the previous registration year's sales with a \$150 minimum. Specialty fertilizer products would be charged \$100 per product registered, and nitrogen fertilizer distributors would pay an additional \$0.65 groundwater protection fee for each ton of fertilizer sold.

The funds would be spent for **direct assistance** programs such as closure of improperly constructed wells, pesticide disposal and recycling programs, and cost share programs for persons in the groundwater stewardship program; **indirect assistance** programs such as education and demonstration programs, technical assistance programs for pesticide and fertilizer users, and research programs; **emergency response and removal of potential sources of groundwater contamination, and administrative costs**, which could not exceed 20 percent of the total fund.

The director of MDA would also establish: rules to designate pesticides with groundwater concerns as restricted use pesticides; a program to track pesticides; and monitoring programs for the general screening of groundwater.

If the director determines that voluntary adoption of groundwater stewardship practices have not been effective in preventing groundwater contaminant levels from exceeding the groundwater resource response level (30 percent of the Maximum Contaminant Level set by the U.S. Environmental Protection Agency), he or she may promulgate a groundwater protection rule that defines the scope and region of implementation. This rule could mandate practices that are protective of groundwater or cancel the use of a pesticide in the area of concern.

The bill was introduced just prior to election break. Some discussion may occur between now and the beginning of the next legislative session. No action is expected on the bill in this legislative session. MFB has not taken a position on the bill as introduced at this time.

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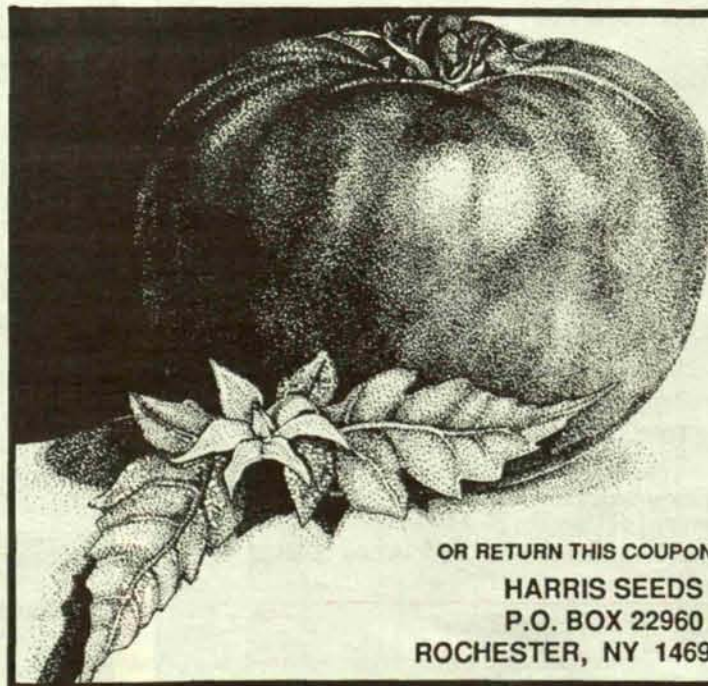
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Corn

The Oct. 8 USDA Crop Report told us the U.S. will have a record corn crop this year, 8.938 billion bushels. Not only that, but history tells us big crops tend to get bigger in subsequent reports, such as the report to be released on Nov. 10. The record production comes from the second largest harvested acreage in the last ten years and a record yield, 123.8 bushels per acre. The previous record yield was in 1987 at 119.8 bushels per acre. A four bushel increase in the record yield is phenomenal, and the growing conditions for many parts of the country were not optimal: look at Michigan. I wonder what the potential is? Michigan's corn yield is projected to be 105 bushels per acre, down from last year's fairly typical 110 bushels per acre and the record 115 bushels per acre.

The USDA released an updated Supply/Demand Report (see Table 1). They updated beginning stocks to 1.1 billion as shown in the September Stocks report. When added to projected production, we have total supply over 10 billion for the first time since before the 1988 drought.

While increases in year-to-year projected use does make up for all the increase in supply, it does make a dent in it. Feed use is projected to be up 270 million bushels from last year and 150 million more than the September projection for this year, which did not include the September Hogs and Pigs Report that showed continued expansion. Food, seed, and industrial use is expected to be up as well. Exports are projected to be down due to less being shipped

Soybeans

It appears that soybeans did not want to be outdone by corn, as we are projected to have the second largest soybean crop on record since 1982's 2,190 million bushels on more acreage. The estimated yield of 36.3 is 2 bushels per acre higher than last year's record, and is almost twice the percentage increase we saw in corn. However, once again, Michigan as a whole is not in on these high yields. Michigan's yield is expected to be 33 bushels per acre versus the last two year's 38 bushels per acre and a five year average of 35 bushels per acre.

Seasonal Commodity Price Trends

Wheat	?
Corn	BT
Soybeans	BT
Hogs	↓
Cattle	↔

Index: ↑ = Higher Prices; ↓ = Lower Prices; TP= Topping; BT= Bottoming; ? = Unsure

to the FSU. However, exports to this point are running near year ago levels.

Even with the significant increases in use, ending stocks will grow an estimated 764 million bushels. Ending stocks as a percent of use is forecast at a plentiful 22.8 percent. This would put the annual average weighted corn price at around \$2.10 per bushels.

We're likely seeing market lows for cash corn about now. In order to reach the \$2.10 cash average, we'll likely see a combination of a rebound in out futures contracts and a tightening of the basis. This increase, while not likely be huge, should more than cover the cost of on-farm storage.

In Table 3, we have the updated USDA supply/demand report. Supply will increase more than projected use. Unlike corn and wheat, the ending stocks aren't particularly burdensome. This means that there is the most upside potential in the soybean market of the three major crops. We are at, or will soon see, the market lows for the 1992-93 marketing year. The odds are quite high that between basis appreciation and a post harvest rally in the soybean futures, on-farm storage costs and interest will be more than covered.

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

Hogs

The only good thing about hog prices is they have hung in there several dollars per hundredweight higher than expected given the huge supplies. While the credits actually being allowed to Russia for pork has helped the market, it does not come close to answering why hog prices have held relatively strong. While there is no reason to believe this strong demand will disappear, there is the question of how long it can hold up without some rebound in income growth.

However, given the expected supplies, hog prices are still likely to fall under \$40 per

Cattle

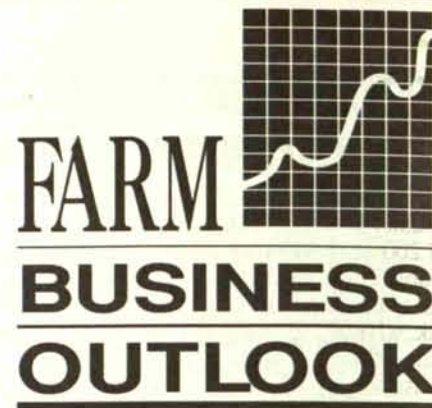
Check the Quarterly 13-State and Monthly 7-State Cattle-on-Feed Report that were released Oct. 23 for confirmation, but it appears we are at or near a short-term top in cash cattle prices. About all you can do short-term is keep current. Cash steer prices are likely to trade in the \$71 to \$74 price range from mid-November through most of the winter.

While there may not be great money to be made, we have seen both feeder calves and

Wheat

The all wheat production number was raised due to spring wheat yields which were increased in some areas. The updated wheat supply/demand report showed total supply of wheat about 100 million bushels above last year. When combined with a use number nearly the same as last year, this means an increase in estimated ending stocks as shown in Table 2.

The new estimates took into account the surprisingly low wheat stocks reported in September. The USDA increased expected feed usage 75 million bushels, from 175 to 250. However, this is still a big question



hundredweight in November. The futures market has price recovering into the low \$40s for the winter. I'm not as optimistic as the \$43 to \$44 December futures and the \$42 to \$43 February futures we saw as of mid-October. If the hog futures have not collapsed from their mid-October highs by the time you're reading this, consider taking some price risk reduction through next summer on a portion of your production - especially if you can't handle prices under \$40 next spring.

yearlings priced at auctions this fall where the break even price is below the futures prices at the projected sales date.

For those who need to buy corn for feed, pencil through your costs of buying now and paying storage and interest versus forward contracting for future delivery, considering the possibility that corn prices could be 50 cents higher by mid-winter. That answer, at least partially, lies in how much risk you can or are willing to take.

mark. Some argue they will "find" the bushels in the next report, which will lower use. Others argue they did not increase use as much as the report called for. USDA split the difference. Export projections were also raised as year-to-date sales are now near last year's levels.

Winter wheat planting has gone quite well in most of the important winter wheat primary growing areas. Unless something changes potential for next year, it will probably keep the pressure on wheat prices. There are more bearish factors in the wheat market than bullish factors.

Table 1
Supply/Demand
Balance Sheet For
CORN

	USDA Proj.	Hilker Proj.	
	1990-91	91-92	92-93
Corn Acreage (Million Acres)			
Acres Set-Aside and Diverted	6.3	4.7	3.5
Acres Planted	74.2	76.0	79.3
Acres Harvested	67.0	68.8	72.2
Bu./A. Harvested	118.5	108.6	123.8
Stocks (Million Bushels)			
Beg. Stocks	1345	1521	1100
Production	7934	7474	8938
Imports	3	20	11
Total Supply	9282	9016	10,049
Use:			
Feed	4669	4880	5150
Food/Seed	1367	1445	1485
Total Domestic	6036	6325	6635
Exports	1725	1590	1550
Total Use	7761	7915	8185
Ending Stocks	1521	1100	1864
Ending Stocks Percent of Use	19.6%	13.9%	22.8%
Regular Loan Rate	\$1.57	\$1.62	\$1.72

U.S. Season Average \$1.85-
Farm Price, \$/Bu. \$2.28 \$2.40 \$2.25
Source: USDA & Hilker

Table 2
Supply/Demand
Balance Sheet For
WHEAT

	USDA Proj.	Hilker Proj.	
	1990-91	91-92	92-93
Wheat Acreage (Million Acres)			
Acres Set-Aside and Diverted	3.2	10.0	3.5
Acres Planted	77.3	69.9	72.3
Acres Harvested	69.4	58.1	63.1
Bu./A. Harvested	39.5	34.1	39.0
Stocks (Million Bushels)			
Beg. Stocks	536	866	472
Production	2736	1981	2459
Imports	37	37	50
Total Supply	3309	2885	2981
Use:			
Food	796	785	835
Seed	90	94	98
Feed	489	259	250
Total Domestic	1375	1137	1183
Exports	1068	1275	1225
Total Use	2444	2413	2408
Ending Stocks	866	472	573
Ending Stocks Percent of Use	35.4%	19.6%	23.8%
Regular Loan Rate	\$1.95	\$2.04	\$2.21

U.S. Season Average \$2.90-
Farm Price, \$/Bu. \$2.61 \$3.00 \$3.30
Source: USDA & Hilker

Table 3
Supply/Demand
Balance Sheet For
SOYBEANS

	USDA Proj.	Hilker Proj.	
	1990-91	91-92	92-93
Soybean Acreage (Million Acres)			
Acres Planted	57.8	59.1	59.1
Acres Harvested	56.5	58.0	58.1
Bu./Harvested Acre	34.1	34.3	36.3
Stocks (Million Bushels)			
Beg. Stocks	239	329	278
Production	1926	1986	2108
Imports	2	3	2
Total Supply	2167	2318	2388
Use:			
Crushings	1187	1254	1265
Exports	557	685	720
Seed, Feed and Residuals	94	101	98
Total Use	1838	2040	2083
Ending Stocks	329	278	305
Ending Stocks, Percent of Use	17.9%	13.6%	14.6%
Regular Loan Rate	\$4.50	\$5.02	\$5.02

U.S. Season Average \$5.10-
Farm Price, \$/Bu. \$5.75 \$5.60 \$5.70
Source: USDA & Hilker

Comparing The Big To The Average Size Dairy Farm

by Sherrill B. Nott
Agricultural Economics, MSU

7

Michigan is seeing an increasing number of dairy facilities being built for dairy herds of 200 or more cows. It requires a considerable investment in facilities and managerial talent to operate them profitably. Some ask, why bother? Others look at the magnitude of these farms and are alarmed because they don't fit their notion of what a family farm should be.

A study of 1987 national costs of production data split specialized dairy farms into 10 size groups and concluded, "There was substantial variation in operating margins across farms in each of the size classes."

The average herd size in Michigan is about 75 milk cows. However, it seems as if several managers are setting up operations of 300 or more. This is an overview of the profitability these two farm sizes enjoyed in 1991. You should be able to find similar categories in your 1991 income tax summaries and forms. Try comparing your farm to the averages.

A group of 16 Telfarmers with over 225 cows were compared to a group of 16 that were close to the state average size of 74.4 cows. Telfarmers use Michigan State University's mail-in accounting system called Telfarm for management and tax reporting. The big group averaged 309 cows, sold 18,310 lbs. of milk per cow, and farmed 3.2 owned plus rented tillable acres per cow. In the tables, they are labeled "Big." They ranged in size from 225 to 700 cows per farm.

The "Mean" group averaged 75 cows, ranging from 72 to 78 cows, sold 17,124 pounds of milk per cow and used 5.0 acres per cow. The mean group was apparently more diversified into crops. They sold \$240 of cash crops per cow, compared to \$96 per cow for the big group.

Net income averages for both groups shown in Table 1, don't include inventory changes, or anything for operator and unpaid family labor. You should be able to fill your numbers into Table 1 from the summary sheets used for income tax filing. If you sell breeding or replacement livestock, your per cow income from bulls and cows should be higher than those in Table 1. Having no crop sales puts you equal to 5 of the mean farms and 3 of the big farms.

Expenses Per Cow

The expenses per cow are given in Table 2. The items of labor, interest, fuel and utilities are for all enterprises of the farm, not just the cows. The feed, vet, bedding, milk hauling, and depreciation on cows would apply only to the dairy part of the farm. The last three depreciation items would be used for crops as well as the cows. It was shown above that cropping is important on these farms, on the average.

The big farms paid less in 1991 interest, fuel, milk hauling (despite shipping more milk per cow), and depreciation on cows plus machinery on a per cow basis. The lower interest implies less total debt, and probably lower principal payments. If this is true, big dairy farms do not require each cow to service as much debt as do mean farms.

The big farms pay more on the average for labor, feed, vet, bedding and depreciation on buildings plus section 1245 items. The labor bill is explainable, as a fixed family size cannot take care of all the cows in the big group. Added labor has to be hired. The feed bill is much higher in proportion than is the milk per cow, and hence was unexpected. Any edge the big farms had in depreciation on cows and machinery they nearly lost on buildings and section 1245 items. Together, the four depreciation items total \$260 and \$255 per cow on the mean farms and the big farms, respectively. How does your farm compare?

Investment Per Cow

Table 3 shows the total and the average investment per cow for the two size groups. Investment is the unrecovered cost or book value from the depreciation schedule. It is the initial cost minus the tax depreciation actually deducted. It is the cost basis, and not the market value. It shows how much investment is left in the farm for which earnings should be providing a return. These, plus any crop inventories and land investment, are the capital assets used in generating the profits shown in Table 1.

One of the big farms had bought the whole herd within the last two years. The unrecovered cow cost was, as a result, substantially more than any other farm. If that herd had instead shown a zero unrecovered cost for cows, the average unrecovered cost of

Table 1. AVERAGE NET INCOME STATEMENT
32 Telfarmers, 1991

	Size	
	Mean	Big
Income items:		
Milk sales	\$157,691	\$716,493
Cull cows, bulls	19,077	82,472
Calves, steers sold	8,194	28,263
Crops sold	17,951	29,735
All other farm income	13,899	39,214
Total income:	\$216,813	\$896,177
Expense items:		
Items not detailed below	\$63,218	\$246,792
Cash labor expense	18,319	129,877
Cash interest paid	17,541	38,716
Gas, diesel, fuels	5,905	17,019
Utilities, phone, electric	4,833	18,424
Feed and feed supplies	35,601	187,151
Veterinary and drugs	3,697	22,243
Bedding, dairy supplies	3,757	25,615
Milk hauling	6,152	24,322
Depreciation - cows	3,321	7,407
Depreciation - machinery	11,068	43,455
Depreciation - sec. 1245 & 38	2,139	10,637
Depreciation - buildings	2,933	17,640
Total expense:	\$178,485	\$789,297
Net Farm Income:	\$38,327	\$106,880

\$25,505 in Table 3 would have been \$15,341 or \$50 per cow. On a per cow basis, the big herds had less unrecovered cost in livestock than did the mean size farms. This may indicate that as a group, the big herds did not recently expand to their current level by purchasing cows.

The mean farms had \$106 more unrecovered cost per cow in machinery than did the big group. Remember the mean farms were more involved with cash crop activities on a per cow basis. There was no attempt to isolate milking center and livestock equipment from total equipment in this study.

Table 3 mentions the Section 1245 and 38 categories separate from buildings and improvements. In fact, these sections are also buildings and improvements which meet special definitions within the IRS tax code. They tend to be single use buildings, feed storages and field drainage tile. The detail is given in Table 3 because income tax

preparers tend to group their depreciation summaries in a similar manner.

Combining the Section and Building lines, the mean farms had \$456 and the big farms had \$605 per cow of unrecovered cost in buildings and improvements. The big farms had the burden of \$149 more invested per cow in these two categories.

National data indicates that the variable costs per cow do not vary much across the country. Fixed costs appear to be quite different in various regions, however.

The level of investment in machinery, buildings and improvements have a major impact on fixed costs. Table 3 indicates the level of investment on two groups of Michigan farms. The per cow unrecovered investments in Table 3 represent what your competition is attaining in the way of investment control. Are you doing as well?

Table 2. SELECTED EXPENSE ITEMS, PER COW
32 Telfarmers, 1991

Expense Item	Size	
	Mean	Big
Items not detailed below	\$844	\$798
Cash labor expense	244	420
Cash interest paid	234	125
Gas, diesel, fuels	79	55
Utilities, phone, electric	64	60
Feed and feed supplies	475	605
Veterinary and drugs	49	72
Bedding, dairy supplies	50	83
Milk hauling	82	79
Depreciation - cows	44	24
Depreciation - machinery	148	140
Depreciation - sec. 1245 & 38	29	34
Depreciation - buildings	39	57
Total Expenses:	\$2,382	\$2,552

Table 3. AVERAGE UNRECOVERED INVESTMENT
32 Telfarmers, 1991

	Size	
	Mean	Big
Average per farm:		
Milk cows and bulls	\$8,350	\$25,505
Machinery, equipment	51,485	179,751
Section 1245 and 38	8,985	87,049
Buildings, improvements	25,206	100,071
	\$94,026	\$392,377
Average per cow:		
Milk cows and bulls	\$111	\$82
Machinery, equipment	687	581
Section 1245 and 38	120	281
Buildings, improvements	336	324
	\$1,255	\$1,269

Dry Bean Supply Picture Supportive to Prices

With harvest virtually complete in most major production areas, estimates on this year's dry bean production are firming up. According to USDA's October production report, total U.S. dry bean production will be 22,384,000 bags, down 32 percent from last year due to a combination of reduced planted acreage and lower yields. USDA projects harvested acreage will be 1,515,000 acres, down over 18 percent from last year. Average yield is projected at 14.77 bags/acre or 17 percent below the near record yield of 18 bags/acre in 1992 (see chart for state by state breakdown).

In Michigan, traders believe actual production may be even less than USDA has projections. There are three primary questions in the market, according to Bob Green, of Mueller Bean in Owosso. One, actual planted acreage given the difference this past spring between the intentions report and final acreage report; two, final abandoned acreage, in light of the frost and wet weather; and finally, actual yield/acre given the extreme variability of this year's crop. Given these concerns, most traders believe it is more likely that the final production figures will be lowered rather than raised.

Canada may be in the market for Michigan beans due to the disastrous Ontario bean crop. Charles Broadwell, general manager of the Ontario Bean Producer's Marketing Board, says growers are struggling to salvage something out of their worst dry bean crop in 30 years. Last year, Ontario producers binned nearly 2.5 million bags of navies. This year, as of Oct. 15, 1992, the Ontario navy crop was estimated at 700,000 to 1 million cwt. with a consensus that it will be closer to 700,000. In the Minnesota/North Dakota region, yields were trimmed by frost and freezing tem-

peratures. The October USDA production report reflected a cut in yield projections there by 2 to 3 bags/acre since the September estimate.

A large volume of beans changed hands in September due to the attractive prices. Many of these beans are now at the elevator level at investments above current grower bids. With the lower production estimates and manageable carryover stocks, dry bean supplies favor a trend toward firm to increasing prices as end users begin to move into the market to secure supplies.

8 Learn To Deal With Harvest Stress

Waving fields of grain, neatly stacked bales of hay, and the opportunity to work the land may make farmers appear to lead charmed lives. But research shows that working in agriculture is actually one of the most hazardous ways to make a living – and farm accidents aren't the only dangers farmers have to deal with.

According to a National Institute for Occupational Safety and Health study, farmers and laborers have the highest rates of death due to stress-related conditions. Heart and artery disease, hypertension, ulcers, and nervous disorders top the list of killers.

The American farmer has to cope with more stress than the average worker does. Droughts, floods, pests, long hours, money problems, and other complications can lead to feelings of frustration for farmers and their families. At harvest season, when nerves become frayed and problems seem magnified, stress often reaches its highest level.

Here are tips from the National Safety Council for reducing stress and improving your mental and physical condition:



- Acknowledge that stress exists in your life. It's the first line of defense.
- Get enough sleep. If you have trouble sleeping, try a little light reading, or listen to relaxing music.
- Talk out your problems with family, friends, or clergy – or seek professional counseling. Doing so will help clear your head and allow you to focus on eliminating or reducing anxiety and stress-related ailments.

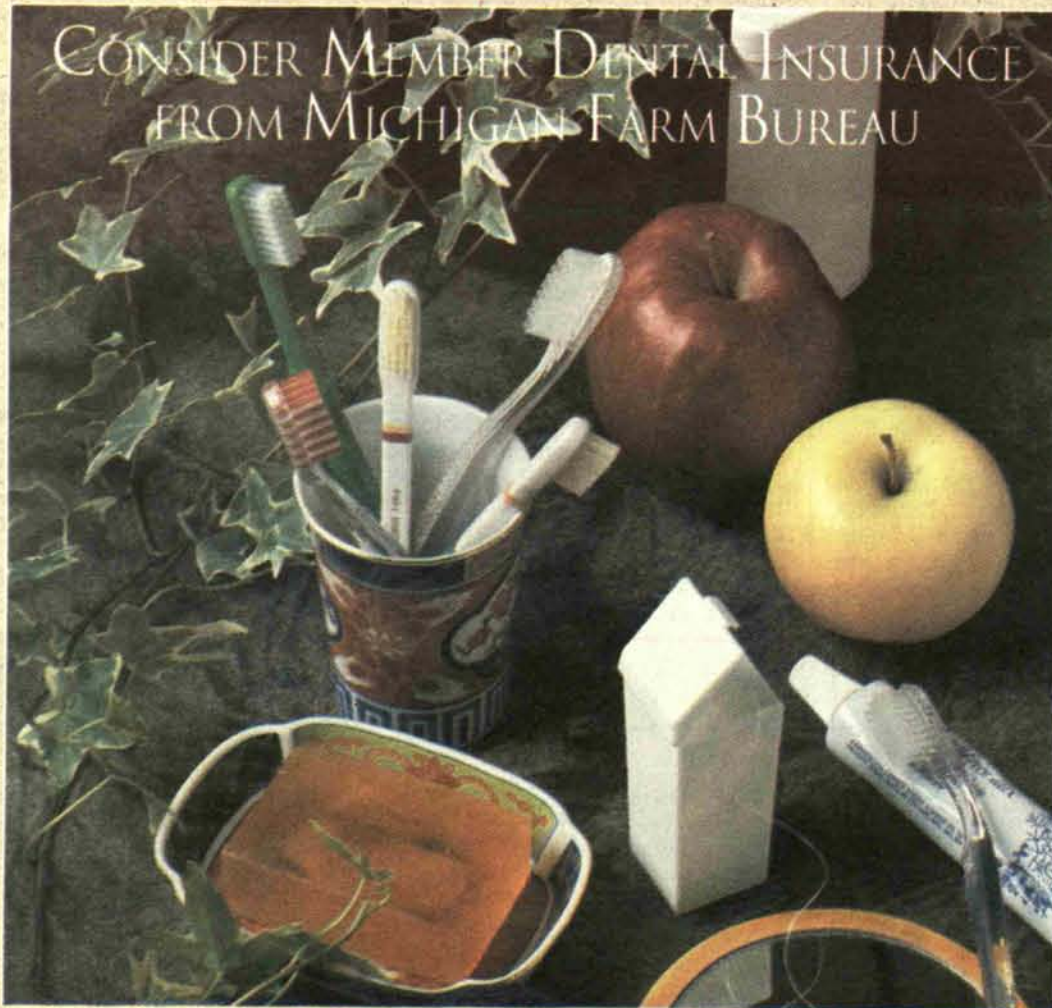


From Farm Bureau Insurance

- Eat a well-balanced diet, and try to limit the amount of caffeine and alcohol you consume. If you smoke, try to quit.
- Don't minimize your reactions to stress. If you keep stress buried inside, it's liable to create mental and physical problems.
- Keep all machinery in good condition. Eliminating possible breakdowns will help you avoid stressful days.

Remember, you can't control the weather – but you can control your ability to deal with stress in productive, not destructive, ways.

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County _____

"Chinese Delegation" continued from page 1

In addition to trade, Chinese agriculture is attempting to cope with other issues such as biotechnology, environmental concerns and conservation techniques. "The government has issued environmental laws to protect the water and the environment, by regulating chemical and fertilizer use," said Chung. "We have recently began using no till farming methods, which have provided a number of benefits to our soil structure."

Chinese agriculture has made use of fertilizers and chemicals for quite some time, but according to Brewer, the amount available is far short of the amount usually required. "That's especially important when your recognize that they're taking as many as three crops off their ground, and their taking the entire plant in many cases," he said. "They'll take the whole corn plant, for example, not just the ear, and they'll even take the brace roots for use in stoves as a fuel."

Brewer explained that the Chinese will often interplant new crops among maturing crops, since planting and harvesting is all done by hand, allowing for triple cropping, except in the most northern areas. "They can plant corn in wheat, for example, harvest the wheat, and then turn around and plant snap beans around the corn plant," he said.

With such a labor intensive agriculture, nearly 40 percent of China's population is engaged in production agriculture, requiring a large Chinese Extension Service as well. There are nearly 300,000 Extension workers in China, accounting for over half of all the Extension workers in the world, according to Brewer.

"Extension is run through a centrally planned economy, at least in the past – it's part of the government, it's run by the government," said Brewer. "But they're very interested in adapting some of our techniques to provide more freedom of discussion in terms of what the local communities want; what the farmers would like to do in raising and selling crops; and determining which inputs they are going use."

"These Extensionists now see that they can work with these communities with a different model than the top down model that they've had in the past. They'll be allowing the Chinese communities to determine their needs and trying to let them make decisions they've never made before," Brewer concluded.

9 Polls Show Michigan Voters Favor Medical Liability Reform

Recent poll results show that medical liability reform is overwhelmingly favored by Michigan voters.

At the same time, new information shows Michigan hospitals with the highest medical liability rates in the nation. This substantiates the state's reputation as having the worst medical liability climate in the country.

In recent regional surveys of registered voters, 97 percent in the eastern Upper Peninsula and northern lower Michigan, 91 percent in Wayne County, and 86 percent in east central Michigan said that the "cost of medical liability insurance is driving up the cost of health care dramatically in Michigan."

In addition, 94 percent of those surveyed in the eastern Upper Peninsula and northern lower Michigan, 86 percent in Wayne County, and 84 percent in east central Michigan agreed "the increasing cost of medical liability insurance is making it harder for people to get access to care in Michigan."

Support for passage of House Bill 5435, which calls for unlimited economic damages, a \$250,000 cap on non-economic damages, and limits on fees attorneys can charge in medical liability cases, was strongly endorsed by voters.

A nearly identical bill was passed by the Senate almost one year ago, but the House has yet to debate it. In the surveys, 80 percent or more of the voters said it was important that the medical liability reform bill be passed by the House of Representatives.

In a separate statewide poll, two-thirds of the voters surveyed believed that H.B. 5435 should be passed. The same survey showed that two out of every three voters would be more likely to cast their ballot for a state representative candidate who supports passage of the medical liability reform bill.

According to St. Paul Insurance Company's annual national survey of medical liability rates, Michigan's costs went up nearly 10 percent in the past year, now averaging \$5,700 statewide per hospital bed - the highest in the country.

National rates have remained stable for the past three years at \$1,300 per bed. Detroit had the highest rate in the nation of any metropolitan area - \$8,600 per bed - more than six and one-half times higher than the national average.

Medical liability insurance rates for hospitals in cities like Saginaw or Flint are higher than rates in San Francisco and Cleveland, and nearly identical to rates in New York City.

"Study after study and survey after survey offer strong evidence of a medical liability system gone awry in Michigan. Yet the House refuses to act on reform," said Spencer Johnson, president of the Michigan Hospital Association (MHA).

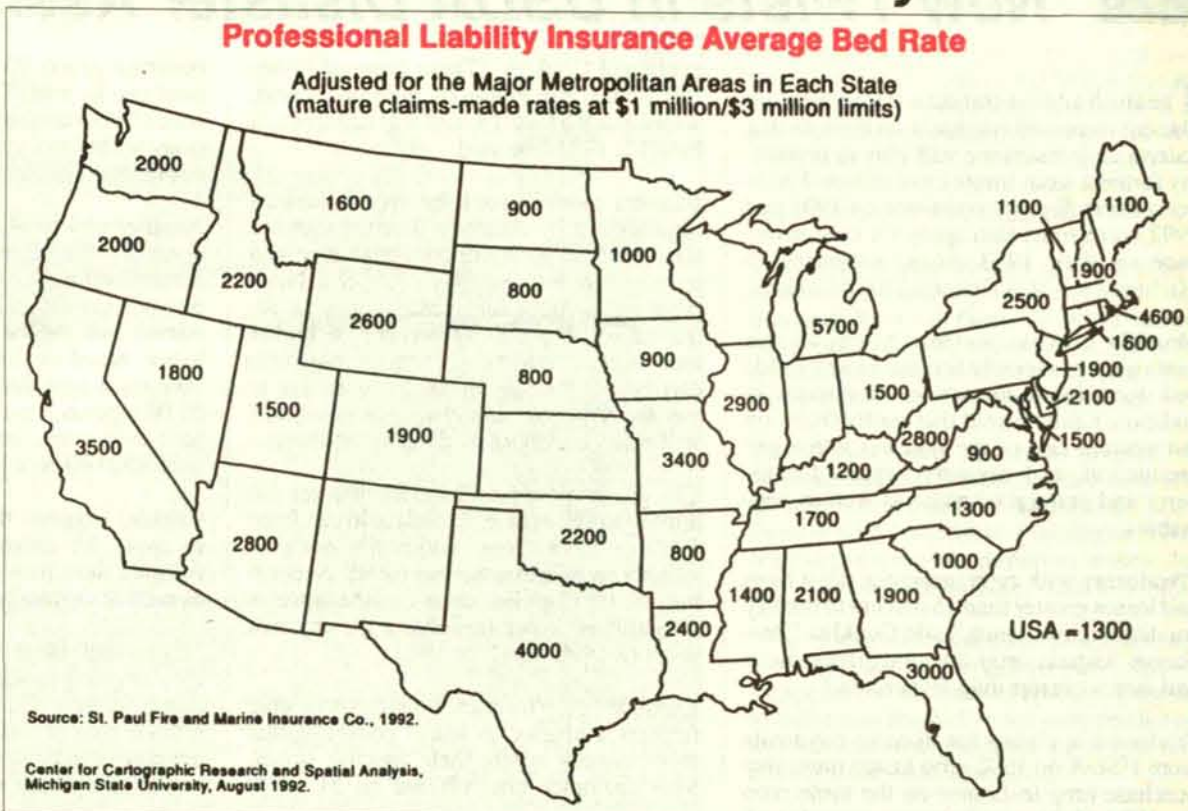
"Voters are losing patience," added William W. Jordan, D.O., Fowler, president, Michigan Association of Osteopathic Physicians and Surgeons. "They want medical liability reform now, before the election."

Thomas C. Payne, M.D., president, Michigan State Medical Society, called for legislative action now. "The public and members of the health care community urge the House to support medical liability reform," said Doctor Payne.

Numerous studies confirm that physicians, especially obstetricians, orthopedic surgeons, neurosurgeons, emergency room physicians, even family doctors are curtailing the high risk of portions of their practices or leaving the state. As a result, access to needed health care services has been reduced, while higher medical liability costs for physicians and hospitals push up health care costs for all patients.

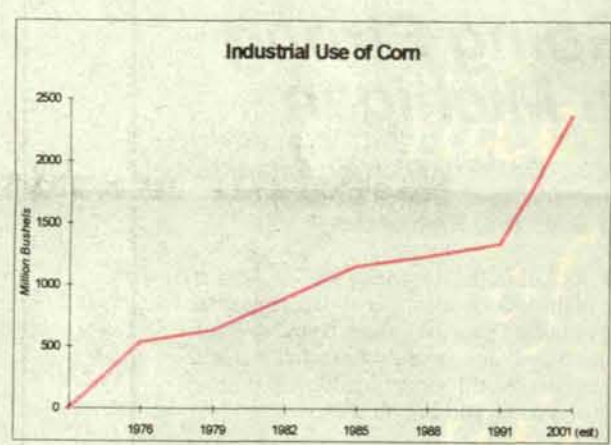
Medical liability coverage for hospitals and physicians costs one half billion dollars a year, yet only 37 cents of each medical liability dollar ever gets to the patient. The rest is spent on administrative costs and attorney fees.

The surveys in the eastern Upper Peninsula and northern lower Michigan, in east central Michigan and Wayne County were conducted by Public Sector Consultants, Lansing, for the Michigan Medical Liability Reform Coalition. The statewide survey was conducted by Market Research Group, Lansing, for the MHA.



Michigan's Corn Marketing Program Questions and Answers

The development of industrial uses for agricultural commodities represents a strong growth opportunity for Michigan's farmers. Corn, Michigan's most abundant crop, leads the way in its ability to meet America's needs for alternative agricultural uses. The chart on the right shows the impact that new corn uses has on corn use.



By passing the Michigan Corn Marketing Program, Michigan's corn growers can help lead the fight to develop new uses, promote their crop, and increase their profitability!

To learn more about the Michigan Corn Marketing Program, read on!

- ✓ **What is a corn marketing program?**
A corn marketing program is a program organized by corn farmers to benefit corn farmers. It places a small assessment on the first sale of corn and deposits these funds in a statewide pool. All funds collected go toward promotion, research and market development for corn. There are currently 18 state corn marketing programs in the US. Michigan is the second largest corn growing state in the nation without a corn marketing program.
- ✓ **Will the corn I grow and feed on my farm be subject to assessment?**
No. Only corn sold will be subject to assessment. Corn you grow yourself and feed on your farm will not be assessed. Seed corn, popcorn, and corn grown for silage are also exempt from the assessment.
- ✓ **What will the assessment rate be?**
The Michigan Corn Marketing Program will collect 1 cent per bushel at the first purchaser (usually the local elevator). On an average 100 bu. yield, that would mean \$1.00 per acre of corn grown for cash crop.
- ✓ **Who is eligible to vote on the Michigan Corn Marketing Program?**
Any corn grower that has sold over \$800 of corn in any marketing season within the last three (3) marketing seasons is eligible to vote. If you feed on-farm all the corn you produce, you are not subject to assessment and therefore are not eligible to vote.
- ✓ **What will my contributions be used for?**
All funds collected will be used to promote corn and corn products. This will be accomplished through research, market development, and public promotion of corn. For example, ethanol blended fuels remain a significant market for corn and are one way to clean our nation's air. In Michigan, ethanol blended fuels command an 18% market share. Corn growers have been a major force behind the development of ethanol markets.
- ✓ **Will most of the funds collected stay in Michigan?**
Yes. All funds will be controlled by a nine member board of corn growers, each representing one district and appointed by the Governor. While some funds will go to national organizations (like the National Corn Growers Association and the US Feed Grains Council), most of the Michigan Corn Marketing Program funds will be used in the state.
- ✓ **Will administrative costs of the marketing program be closely controlled?**
Yes. All budgets will be developed and approved by farmers. In addition, the program caps administrative expenses at no more than 15% of funds collected. Typically, most state corn marketing programs operate at much less than 15% of funds collected.
- ✓ **How can I vote "YES" on the Michigan Corn Marketing Program?**
You need to visit your county extension office or county ASCS office during the voting period, which is **Monday, November 30, 1992 to Friday, December 11, 1992**. Pick up a ballot, complete it according to the instructions on the ballot, and return it via US Mail to the Michigan Department of Agriculture.

For More Information, Call the Michigan Corn Growers Association at (517)323-6600.

Remember, Vote YES in December for your future!

10

New Twists in USDA Disaster Assistance

The Bush administration and Congress are placing increased emphasis on the role that federal crop insurance will play in protecting farmers from future crop failure. Farmers seeking disaster assistance on 1991 and 1992 crops must also apply for crop insurance on their 1993 crops, according to Michigan's ASCS Director David Conklin.

Monthly frosts in northern Michigan this past summer severely limited forage yields and stunted corn growth in some areas. In addition, Conklin said that spotty frosts on the western side of the state cut into apple production, and severely impacted blueberry and grape production as well as vegetables.

"Producers with crop insurance must have had losses greater than 35 percent to qualify for disaster assistance," said Conklin. "Producers without crop insurance must have had losses greater than 40 percent."

Producers applying for disaster payments from USDA on 1992 crop losses must also purchase crop insurance on the same crop for 1993, if this year's losses exceeded 65 percent, as required by the 1990 farm bill,

explained Conklin. "These types of losses fall under the Phase-III sign-up period, which started Oct. 13, and will run through Feb. 12, 1993," he said.

Farmers cannot avoid the crop insurance requirement by delaying disaster sign-up. Farmers who purchase crop insurance as a requirement for receipt of ASCS disaster payment or debt forgiveness, will be required to obtain a 30 percent or higher market price selection. Farmers must also certify that they understand that failure to pay the required crop insurance premiums will mean forfeiture of disaster payments.

The application for Phase-III disaster aid applies to losses in 1992 and for losses from 1990 or 1991 crops, which did not previously receive disaster payments. According to the Conklin, disaster assistance is available on a per-farm basis for any two years of 1990, 1991, or 1992.

Expanded crop insurance options now give farmers a chance to select coverage that more closely meets their specific needs, with insurance now offered on 51 crops

covering nearly 75 percent of the agricultural production. The Federal Crop Insurance Corporation plans to expand that coverage within five years to include 95 percent of the total agricultural production.

Another new twist to Phase-III disaster assistance - the payment factor has been predetermined at 50.04 percent. Previously, all disaster assistance applications were submitted and then a payment factor established based on the total losses filed for. "We know now that the factor is going to be 50.04 percent," explained Conklin. "If you have a loss and you're eligible, you'll be paid \$500.40 on a \$1,000 loss claim."

Conklin suggests that producers intending to apply for disaster assistance, begin to compile their past production records now as well as current production evidence.

"If an individual wants to prove yields, they're going to need specific farm production evidence," Conklin said. "We're in the process now of updating our yields for state averages and those haven't been released as yet, but they soon will be."

Multi-Peril Crop Insurance Sales Closing Dates

Fall Seeded Crops: Originally was Sept. 30, but was extended to Oct. 31, which falls on a Saturday, making Nov. 2 the actual date.

Fruit Crops: Closing dates vary. Apples are Nov. 20, peaches Nov. 30, grapes Dec. 10. These are the only fruit crops covered in Michigan under Multi-Peril policies. Fruit crop coverage is available in limited counties.

Spring Seeded Crops: April 15, 1993. Includes oats, sugar beets, corn, sweet corn, popcorn, canning beans, dry beans, grain sorghum, hybrid corn seed, green peas, soybeans, potatoes, tomatoes, and barley. Not all spring seeded crops are covered in all counties. Onions have a closing date of March 1.

These dates apply to existing policy holders who wish to cancel coverage or make changes in price selections or levels. Production reports for the prior year must be received by June 1, 1993.

Forest Stewardship Going Strong in Michigan

Linda DePaul, District Extension Forestry Agent, MSU College of Ag & Natural Resources

With fall in the air, many landowners are out in the woods admiring the foliage, hunting or taking photos. Take advantage of this time to evaluate your property with a critical eye to see if it is as healthy and productive as you would like it to be.

If it isn't, the Forest Stewardship Program (FSP) and the Stewardship Incentive Program (SIP) can provide financial assistance for wildlife habitat improvement, tree planting, wetland restoration, fisheries habitat improvement, tree improvement, and windbreak construction, renovation and maintenance.

These programs are based on a land ethic that encompasses a long-term view of the entire forest community. Specifically, the programs assist landowners in making ten-year plans for improving or protecting the environmental quality of their property and then helps them implement these plans.

Landowners who have at least 12 acres of contiguous ownership and not more than 1,000 acres of forest may be eligible for cost-share assistance under these programs. The cost-share or reimbursable amount varies with the practice from 50 - 75 percent of the cost. Individual components under the practices include: planning, seeding, planting, fencing, weed control, mulching and site preparation.

The stewardship programs in Michigan are a cooperative effort between the Department of Natural Resources, the MSU Cooperative Extension Service, the Soil Conservation Service, the Michigan Department of Agriculture, and the Agricultural Conservation and Stabilization Service.

It's guided by the recommendations of the Michigan State Stewardship Committee, a 29 member group representing education; environmental concerns; state, local and federal government agencies; agriculture; and private landowners.

For more information on eligibility and sign-up for FSP/SIP cost-share assistance, contact your local ASCS or CES office.

Maybe those doctors are right. After all, they are experts at milking.

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At ICI, we know all physicians don't squeeze their patients for money. We just wanted to make a point about the small group of doctors that's been speaking out against milk. We think these guys are way off in left field. And we'd like the dairy farming community to know it has our full support. Your industry doesn't deserve this kind of unfounded attack. After all, even the American Medical Association has called these doctors "a fringe organization of questionable reputation" with "absolutely no scientific proof" to support their radical claims.

So we suggest they stick to practicing medicine and leave the milking to the real experts. The hard-working dairy farmers of America.



For more information, call:
1-800-348-2742

Wetland Cells Assist in Disposal of Livestock Yard Runoff

11

Researchers at Purdue University in Indiana are investigating ways to reduce farm animal waste runoff while providing potential wildlife habitats and reaching common ground on the wetlands issue between farmers and environmentalists.

The objective of the Purdue project is to find a way to prevent possible contamination of lakes and streams by surface water runoff from nearby livestock farm yards and feedlots.

The project involves placing wetlands between the waste origin and the body of water. Animal waste is high in nutrients, especially phosphorous and nitrogen, which aquatic plants thrive on. When lakes and streams are polluted by this waste, they experience high plant growth which eventually chokes out fish and other aquatic life.

Wetlands, on the other hand, are full of nutrient utilizing plants and by placing one between the waste source and body of water, the excess nutrients are used up, providing the lake with clean water and slowing down the eutrophication process.

"As the water travels through the wetland cells, the nutrients that are in that water will be taken up by the wetland plants, and then the water that would be discharged into the lake would be clean water and not present any kind of a problem for water quality in the lake," said Stephen Lovejoy, professor of agricultural economics and director of Purdue's Center for Alternative Agricultural Systems.

Purdue's first project involves three test wetlands on an Indiana dairy farm in La-Grange County. Researchers placed three long, shallow cells 20 feet wide and 150 feet long between the farm operation and a nearby lake. The individual cells enable researchers to test the water and adjust nutrient levels so the water that leaves the wetlands is as clean as the water in the lake or stream.

The tests will also determine how large the wetlands should be and how many will be needed for certain types and amounts of waste. "What we're going to find out is how efficient these wetland cells are at taking out the nutrients from this kind of livestock waste," said Lovejoy.

Large farms with an excess of 1,000 head of cattle must have a special permit for waste disposal from the Environmental Protection Agency. Smaller operations are not regulated yet, but with the clean water legislation currently being debated in Congress and the heightened environmental awareness of the general population, regulation of waste on small farms may not be too far away.

"One of the unique things about this project is that it satisfies the need of farmers to be more responsible in how they handle their animal waste," said Lovejoy. "It certainly fulfills an environmental need for not only



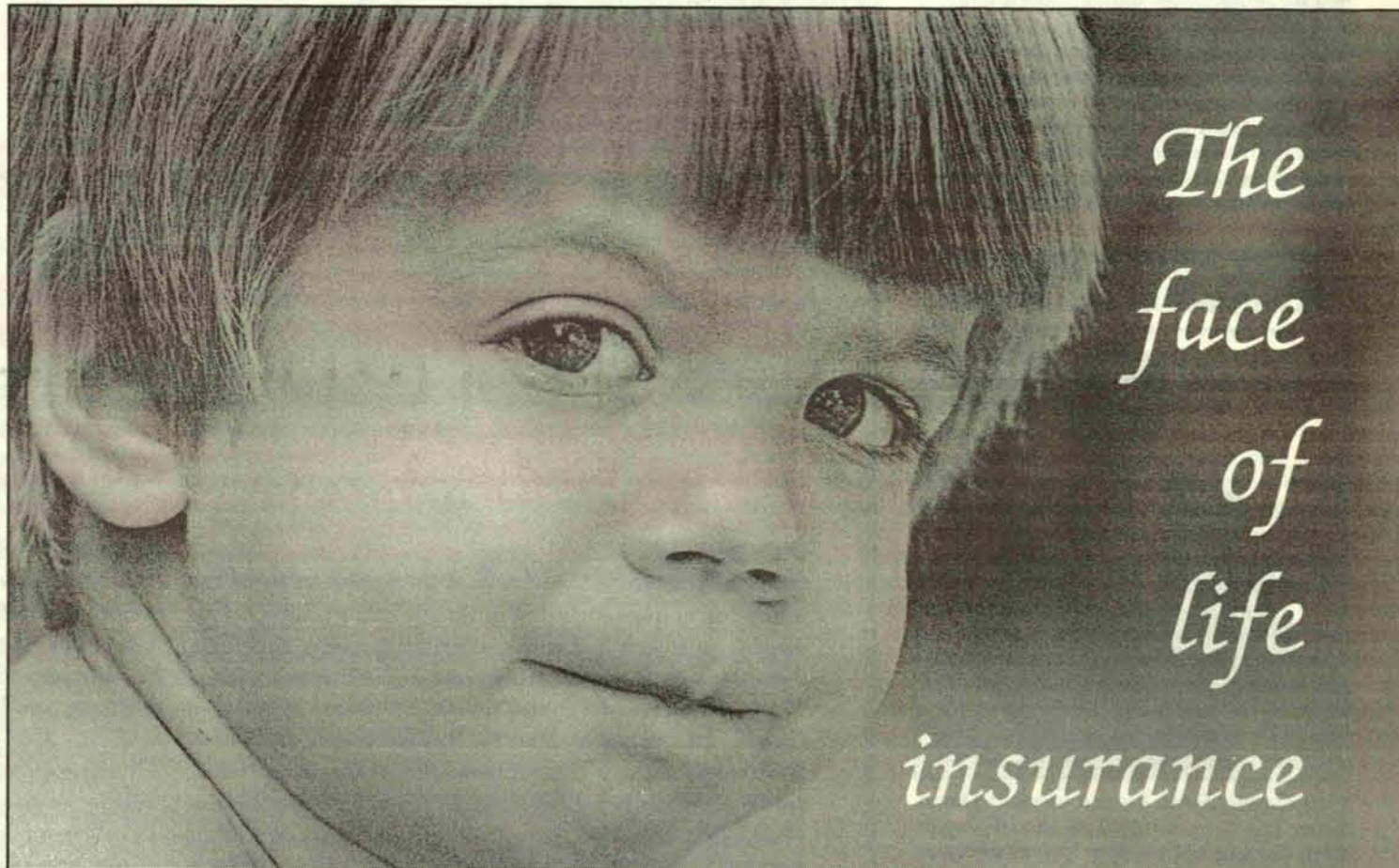
Above, (l-r) Steven B. Lovejoy, Department of Agricultural Economics, and coordinator, Center for Alternative Agricultural Systems at Purdue University and Paul J. Duboy, assistant professor of Wildlife Ecology, Department of Forestry and Natural Resources, inspect a wetland cell constructed to filter water runoff from the livestock yard in background.

water quality, but also the creation of wetland cells. That's one of the things that the environmental community and citizens in general have indicated over the past several years, that they feel are very important, not only from a water quality point of view, but also from a wildlife habitat point of view."

The wetland filter system appears to be a relatively inexpensive waste disposal option even for small farms. With the knowledge obtained on the experiments, researchers will be able to calibrate the size of the wetland for each particular operation.

The wetlands not only have potential to become wildlife habitats, but could also give the farmers an economic return. "Some farmers who are close to a fishing area may want to put some bait minnows in there and then harvest them for sale," said Lovejoy.

"We're also looking at some potential crops in the wetland that could be harvested for forage for certain types of species. We want to make sure that we're not only producing an environmental good, but we're also producing some economic good."



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Endangered Species Act Reform Possible

Legislation introduced to reform the Endangered Species Act "should restore balance, scientific integrity and common sense to an important environmental law," according to MFB Public Affairs Director, Al Almy.

The proposal would require the federal government to consider the effect on local and regional economies when designing recovery plans for threatened or endangered plants and animals.

Almy said the bill will speed up the process of protecting endangered species by requiring recovery plans to take effect within 18 months for species newly listed and within 2 years for species already listed. It would also provide a timetable and goals for boosting the population levels of listed species.

12 MLSE's Live Stock Feeding Program – Unique and Growing

In the mid 1980s, live stock producers had difficulties obtaining agricultural credit from conventional banks. To help keep many of their members in the cattle business, the Michigan Live Stock Exchange (MLSE) developed the Livestock Feeding Program (LFP).

The LFP was started by the MLSE in 1986 when many members who were second and third generation live stock producers could no longer receive traditional financing, according to MLSE General Manager Tom Reed. The MLSE felt the need to assist the farmers. "We tried to find a way to provide them with funding so they could stay in business until the banks came back into the arena," said Reed.

"We're not a bank, so we can't loan money," said Reed. After researching many options, the MLSE decided to form a subsidiary, the Michigan Livestock Credit Corporation (MLCC). The MLCC's objective is to borrow capital and purchase live stock to place with farmers having difficulty getting conventional credit to purchase cattle. "We're contracting producers to feed cattle that we retain ownership of," Reed said.

Traditional feeding programs give the farmer a set price per pound of gain. The LFP treats the producer as if he is renting the cattle from the MLCC. The farmer is actively involved in marketing and placement of the cattle. When the cattle are sold, the farmer receives a check for the livestock

minus the marketing fee and a service fee. This enables the producer to take full advantage of the market trends.

"His profit is the same as it would be if he had owned the cattle and had borrowed his money from the bank," said Reed. He also adds that the program has definite risk advantages over dealing with a bank. "If the farmer has a very big loss in a particular year, the bank may take a piece of his farm. In our program we're sharing some of that risk. If he gets less than costs back, we also have to absorb some of that loss."

Reed said that the LFP has cut through the red tape that farmers generally go through with the banks. "The farmer doesn't need to fill out long financial statements; all we care about is whether he has the feed, the facilities, the integrity and the knowledge to feed our livestock," he said.

In the beginning, the program was not received well by the banking community. "They were laughing at us," commented Reed. "They said we were going to go broke the first year." A few years later, MLCC sent a representative out to explain the program

and try to convince them to start lending funds to farmers again. "The banks were so impressed with our program that rather than taking producers back, they started referring more to us," said Reed.

"It has become a partnership with the bank," he said. The banks said that since MLCC knows more about live stock than the bank, MLCC should take care of that portfolio. Some banks have even offered financial assistance should MLCC need it.

There are nearly 500 producers currently participating in the program with a live-stock portfolio close to \$40 million. When the program was started just six years ago, the initial portfolio was \$6 million. "There was a period of time over the last two years that it was pretty tight; it barely held it's own, but MLCC is making a profit now," noted Reed. "It is actually growing equity now to the point that we have excess money in the corporation that can be loaned."

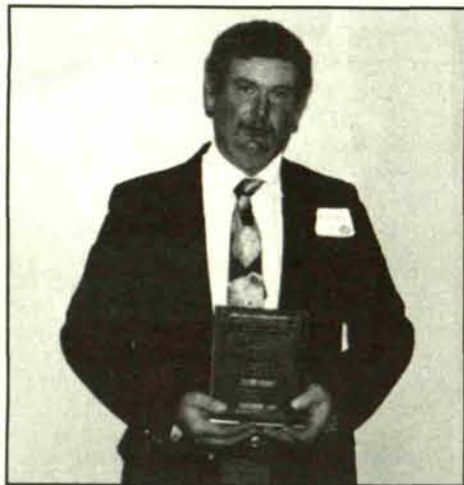
Reed is optimistic about the future of the LFP and said they are negotiating with banks and farm credit systems to have the financial institutions refer anyone request-

ing funds for live stock purchases to MLCC. "I believe within the next five years the LFP will be the majority portfolio for livestock in Michigan," he stated. In that event, Reed estimates the current \$40 million portfolio would grow into \$250 million.

"It's exciting, because we'll have a joint relationship with the banking community," he said. Reed feels the banking community should learn more about the agriculture industry, which may make it easier for farmers to obtain financial assistance. "Any joint venture we can do will build the comfort level of the banking community and provide more money, therefore, helping growth in the industry," explained Reed.

The LFP in Michigan has been so successful that other states are forming programs based on it. Indiana, Ohio, Oklahoma, Wisconsin and Minnesota all have programs similar to the LFP and the Dakotas are beginning a test program. "The program is becoming very widespread and used a great deal around the country," said Reed. "It's a good way for a farmer/owner cooperative to assist the producer in his live stock production."

Elsy MFB September Volunteer of the Month



Cass County Farm Bureau member David Elsey has been selected as the Michigan Farm Bureau's September Volunteer of the Month for his efforts to restore county funding for the county's Sheriff Department. The department had to eliminate half of its road patrol as well as its investigation staff due to county budget cuts.

Elsy and his wife, Wendy, farm in partnership with his father near Decatur, operating nearly 800 acres and raise out over 5,800 head of hogs. In addition to serving as vice president on the Cass County Farm Bureau Board, Elsey is also a Cass County Pork Producer member and serves as Region IV Director on the Michigan Pork Producers Board of Directors.

Elsy launched a considerable effort to promote the need for additional law enforcement funding in Cass County, including chairing a law enforcement committee, development and mailing of over 5,000 brochures, development of a millage proposal, and nearly 35 personal presentations to various organizations and governmental bodies.

Although the "Public Safety Millage" issue lost by just 53 votes, members of the Cass County Law Enforcement Council voiced their appreciation to Elsey and the Cass County Farm Bureau for their efforts and awareness of the need for additional law enforcement personnel. "We are fortunate in Cass County to have individuals and organizations who are caring enough to go the extra mile in making their community a better place to live," concluded a letter of appreciation from the council to Elsey.

1993 FARM BUREAU TRAVEL SERIES

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July 8-23, 1993

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European Adventure Tour visiting Austria, Switzerland & Italy

August 14-25, 1993

Our 12-day central European tour takes in the beautiful countryside of Austria, the mountains of Italy and the lakes of northern Italy as we visit Fairytale Bavaria, the Passion play village of Oberammergau, the Italian resort of Stresa and Linderhof Castle.

This European tour includes roundtrip airfare, transfer, deluxe motorcoach transportation, first class and Tyrolean-style hotel accommodations, European-style buffet breakfast daily, 1 dinner, and much more. The Farm Bureau member price is \$1,725. Non member price is \$1,755 per person.

Heritage of America

September 25 – October 3, 1993

The beautiful colors of the fall foliage combined with America's most historic areas makes this a most outstanding tour for Farm Bureau members. Our travels will include New York City, the city of Brotherly love — Philadelphia, the Amish country of Lancaster, as well as Gettysburg and the Shenandoah Valley. Our adventures will then take us to Monticello, colonial Williamsburg, and then to our nation's capital, Washington, D.C.

This deluxe tour includes air transportation, first-class hotel accommodations, deluxe motorcoach transportation, 15 meals, and full sightseeing and admissions to all attractions. This 9-day tour is available for \$1,299 per member.

Copenhagen Plus

October 9-16, 1993

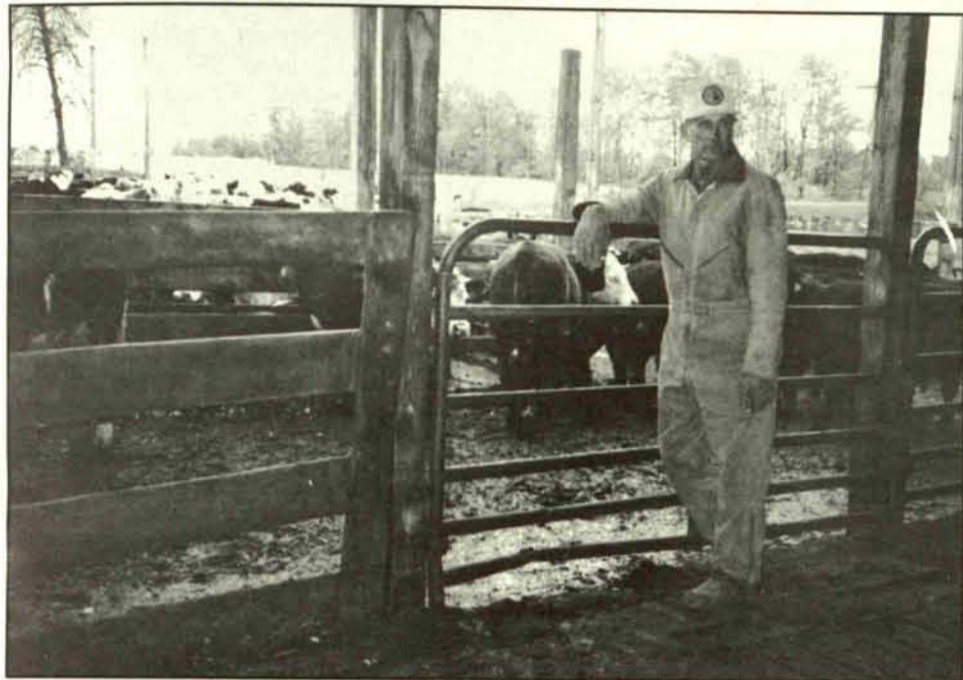
Scandinavia this fall could be the most refreshing, truly different vacation you have ever had. Scandinavia is different, but you will feel very much at home. Our one-week vacation offers you the opportunity to enjoy Copenhagen, Denmark — one of Europe's most exciting capital cities — known for its fun loving spirit! Copenhagen has many fine museums, Royal Palaces, and an old harbour district with colorful cafes and cosy restaurants. The Strogit is the famous pedestrian shopping center — Europe's largest — where you can find the finest of Scandinavian goods and crafts.

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Livestock Feeding Program – Opportunity for this Producer

13

For Gratiot County cattle feeder, Delbert Crumbaugh, the MLSE's Livestock Feeding Program and his cattle feeding facilities and expertise have been a good combination over the last six years.



Delbert Crumbaugh, an Ashley cattle producer in Gratiot County, is one of 500 livestock producers involved in the Livestock Feeding Program (LFP) through the Michigan Live Stock Exchange (MLSE).

Crumbaugh has been in the cattle business for over 40 years, many of those years with the MLSE, buying and selling cattle. When the LFP was started six years ago, Crumbaugh was one of the first producers to get involved.

The program was started when MLSE noticed that many livestock producers were having difficulties obtaining credit from banks for purchasing cattle. Crumbaugh was having the same difficulties as other producers, and a representative from the MLSE informed him about the LFP.

"The program came at a time when banks were withdrawing from a lot of cattle feeders and all farm operations," said Crumbaugh.

Before the LFP, Crumbaugh relied on a commercial bank for his credit needs. He

said the LFP is a good program, because the interest rates have been competitive with many banks and it cuts out an entire set of people he has to work with.

"I was previously financed through the banks, but I like the LFP much better, because the people you are talking with are knowledgeable about cattle," said Crumbaugh. "Most banks do not have people who specialize in livestock or other farm operations."

He added that since he had already been working with MLSE before he was involved in the LFP, he was able to work with people he already knew and had dealt with before.

Crumbaugh is an experienced cattle producer and doesn't require much assistance choosing or managing the cattle he feeds. He can purchase cattle either locally or through the MLSE.

Once he has picked the cattle out, he informs a representative of the Michigan Livestock Credit Corporation, the subsidiary of MLSE that helps producers purchase the cattle. Crumbaugh is then responsible for the cattle in every way, just as though he had borrowed money from the bank.

In addition to having good management techniques, cattle producers in the LFP must have adequate production facilities and feed for the cattle.

Each year, Crumbaugh feeds about 500 head of cattle. He sells and adds monthly and has nearly 400 head at any given time. The cattle are at the farm between four and eight months. Crumbaugh buys cattle at an average of 600 pounds and sells them when they reach around 1200 pounds.

His feed ration consists of corn silage, high moisture corn, and hay that he grows on the farm. He also supplements the feed with corn screenings, minerals and protein purchased at a local elevator. Once a year, the LFP verifies that the operation has an adequate feed supply for the cattle.

Each month, Crumbaugh is sent a monthly statement to verify how many cattle he has and report any death losses. Every other month, an LFP representative visits the Crumbaugh farm to make sure operations are running well.

"They come out and check the cattle every other month, to make sure everything is fine," said Crumbaugh. "That's how cattle operations and banks got into problems in the past because the banks didn't keep track of their investments."

Although the LFP cattle do not have to be purchased through the MLSE, they must be sold there. When Crumbaugh is ready to sell some cattle, he takes them to the St. Louis MLSE stock yard facility. After the cattle are sold, Crumbaugh reimburses the MLSE for the first cattle he purchased and service charges. This way, Crumbaugh is able to take full advantage of the market fluctuations. At times the program has been quite beneficial for Crumbaugh, but he would like to see the LFP have a running average cost for the cattle, to even out the cash flow.

"With a running average cost, you would just about know what your cash flow would be each month," said Crumbaugh. He has been in the program since it started and feels as long as the interest rates are competitive with the banks, he has no reason to go back to traditional financing.

"By financing this way, MLSE did more than help the cattle feeder because everyone they help is their customer, since producers have to sell their cattle back through the MLSE," said Crumbaugh. "They kept business for themselves by doing so, but they did it without jeopardizing my freedom to buy and sell as I had been."

Panama Canal Cruise

February 6-16, 1993

Nothing can compare with the majesty of the Panama Canal. Join us on our 10-day cruise on the Royal Princess and watch this 45,000 ton ship as it is raised and lowered 85 feet using no other power than the force of gravity. Imagine cruising to one sun-drenched port after another. Acapulco for the cliff divers. Cartagena for South America. St. Maarten for the beaches. Costa Rica for the scenery. San Juan for the history.

Our cruise package includes a 20% discount on all cabins, all meals and entertainment, air transportation, group cocktail party, bottle of champagne, and prepaid shipboard gratuities. Cabins begin as low as \$2,322.

Australia/New Zealand

March 2-22, 1993

Farm Bureau members are welcome to join our tour to the "Land Down Under," where it will be late summer, instead of winter, when we get there. Our 21-day package to Australia and both the North-South islands of New Zealand is highlighted by visits to the Great Barrier Reef & Cairns, Sydney and the Sydney Opera House, Melbourne, Christchurch, Mt. Cook National Park, Queenstown, Milford Sound Rotorura, and Auckland. Our flight to Australia will include an overnight stop in Honolulu and we will stop in Fiji for 3 days upon our return to the United States.

Our tour package includes roundtrip air transportation, deluxe motorcoach transportation, all transfers, deluxe and first class hotel accommodations, full sightseeing, 28 meals and a professional guide throughout the tour. Experience the "Land Down Under" plus Hawaii and Fiji all for \$4,999 per person.

Georgetown Home Tour

April 23-26, 1993

Join us for the weekend as we stroll the historic neighborhoods of Georgetown and visit several homes and experience the beauty and grandeur of these stately mansions. Spectacular decorating and colorful gardens await us on each walking tour, to be followed by tea and cookies. Our package includes roundtrip airfare, transfers, accommodations at the beautiful and European styled Georgetown Inn, 7 meals, a city tour of Washington, D.C., and a visit to the National Gallery. Members: \$674. Non-members: \$694.

the FARM BUREAU TRAVEL SERIES

Scandinavian Capitals and Russian Grandeur

June 15-29, 1993

Our 13-day cruise upon the new luxurious Crown Odyssey is highlighted by visits to six great European capitals — Oslo, Copenhagen, Helsinki, Stockholm, Amsterdam, and London, plus St. Petersburg, Russia. Our Farm Bureau travelers also have the opportunity for a one-night land excursion to Moscow.

Our cruise includes airfare, transfers, all meals and entertainment, cocktail party, bottle of wine, as well as prepaid gratuities to cruise staff. An optional two-night "London Showtime" package before or after the cruise is also available. Cabins begin at \$4,036 per person.

Brochure Request Form

Please send, without obligation, the detailed information for the tours indicated below

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|--|--|---|---|--|--|--|--|
| <input type="checkbox"/> Panama Canal Cruise | <input type="checkbox"/> Australia New Zealand | <input type="checkbox"/> Georgetown Home Tour | <input type="checkbox"/> Scandinavian Capitals & Russian Grandeur | <input type="checkbox"/> England, Ireland Scotland & Wales | <input type="checkbox"/> European Adventure Tour | <input type="checkbox"/> Heritage of America | <input type="checkbox"/> Copenhagen Plus |
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County _____		or call	
		1-800-292-2680	
		ext. 3067	

14 Goodyear's Trackman - Makes a Great Machine Even Better

One of the world's most versatile utility vehicles has just become agile with new feet of rubber track that can be fitted on location, announces The Goodyear Tire & Rubber Company.

An endless rubber track, called Trackman, was introduced on the skid-steer loader, a traditionally wheeled vehicle that has become increasingly popular because of its versatility.

"Trackman carries the skid-steer into a new dimension," according to Ned Kendall, vice president of Engineered Products at Goodyear. "Our testing and work with original equipment manufacturers and dealers indicate the track-outfitted vehicles go well beyond the capabilities of conventional wheeled vehicles."

The retrofit version of Trackman made its debut at the Farm Progress Show. The rubber tracks wrap around and are held in place by the vehicle's tires.

Rain-soaked ground, loosely compacted or rough terrain and fear of turf damage tradi-

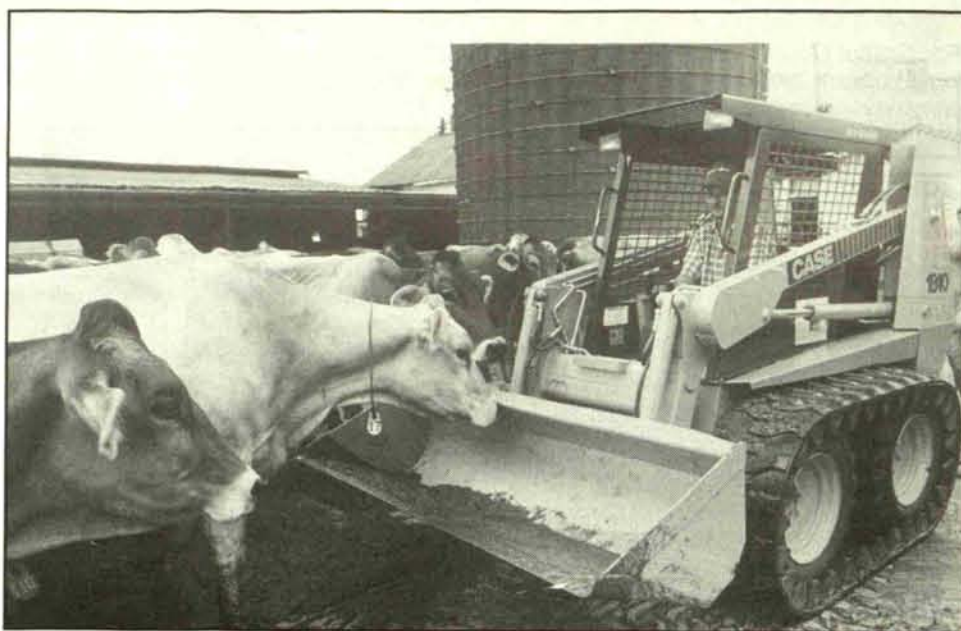
tionally have been limiting factors for the use of skid-steers, he explained.

"Goodyear rubber track answers those concerns," Kendall said. "Trackman's wider, softer footprint gives the vehicle access to areas inaccessible to wheeled skid-steers," he said. "Rubber tracks keeps the skid-steer on-site working when wheeled versions are sidelined."

Kendall said Goodyear chose the skid-steer as its first application because of the vehicle's growing popularity as an all-purpose work vehicle on farms, businesses and construction sites. "Goodyear rubber track takes a machine that is praised for its versatility and makes it more nimble, more maneuverable," he explained.

The retrofit version of Trackman is friction driven and easily fits over the skid-steer's tires. Other construction, agricultural and utility vehicles that currently use steel track or tires are targeted for future Trackman applications in both the original equipment and retrofit markets.

New Product Profile!



"The retrofit version of the track eventually will be available through Goodyear's 1,400 Pit Stop servicing dealers," said Ned Kendall, vice president of Engineered Products at Goodyear. "Trackman will be available in Ohio, Indiana and Illinois within 30 days for Melroe loaders and within 60 days in the same states for J I Case loaders," he said.

"The track will be available throughout the U.S. for Melroe loaders as of Jan. 1 and for Case loaders by Feb. 1," Kendall added. He noted that rubber track made for Melroe and Case will fit some competitors' models.

Carhartt Sale Days

WESTERN STYLE JACKETS

JACKET - DUCK - QUILTED FLANNEL LINED

■ 12-ounce 100% cotton duck with plied yarns ■ Water repellent (re-treat after washing) ■ 6-ounce 100% polyester flannel lining ■ Corduroy collar ■ Heavy-duty zipper front with protective windproof flap ■ Slash front pockets with snap closure ■ Knit cuffs and bottom ■ Traditional western styling ■ Available in six colors

COLORS: Brown, Navy, Steel Blue, Red, Black, Natural
WEIGHT: 3.8 #



ITEM NUMBER	SIZE	RETAIL	MEMBER COST
JQ166	34-36/S	\$ 71.49	\$ 49.75
JQ166	38-40/M	71.49	49.75
JQ166	42-44/L	71.49	49.75
JQ166	46-48/XL	71.49	49.75
TALL JQ176	38-40/M	78.49	53.75
TALL JQ176	42-44/L	78.49	53.75
TALL JQ176	46-48/XL	78.49	53.75
TALL JQ176	50-52/2XL	78.49	53.75

DUCK COVERALLS

QUILT LINED - ZIPPER LEG TO WAIST

■ 12-ounce 100% cotton duck with plied yarns ■ Water repellent (re-treat after washing) ■ Lined with durable red nylon quilted to 3.3 ounces of polyester ■ Corduroy collar with snaps to accommodate optional hood ■ Heavy-duty two-way zipper front ■ Bi-Swing action back ■ Two covered zipper breast pockets ■ Two side pockets ■ Two reinforced hip pockets ■ Hammer loop and side tool pockets ■ Two-way leg zippers with protective windproof flaps with snap closures open to waist ■ Two waist and cuff adjustments
COLOR: Brown only
WEIGHT: 5.5 #

ITEM NUMBER	SIZE	RETAIL	MEMBER COST
996QZSRT	34-50	\$ 89.99	\$ 63.50
BIG 996QZSRT1	52-54	97.99	68.75
BIG 996QZR2	56-58	107.99	74.25
BIG 996QZR3	60	115.99	79.50

WOMEN'S - QUILT LINED - ZIPPER LEG TO WAIST 29" INSEAM

RQ906	S-L	\$ 81.49	\$ 59.00
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COVERALL SIZING:

Short fits 5'3" thru 5'7"
Regular fits 5'7" thru 5'11"
Tall fits 5'11" thru 6'3"



Rugged as the men who wear them.®



MICHIGAN FARM BUREAU MEMBERS CARHARTT PURCHASE SALE

DUCK VESTS

PILE LINED

■ 12-ounce 100% cotton duck with plied yarns ■ Water repellent (re-treat after washing) ■ Lined with warm polyester ■ Heavy-duty zipper front ■ Two inset front pockets with elastic shell loops inside ■ 3-inch kidney flap
COLOR - Brown only
WEIGHT: 2.5 #



ITEM NUMBER	SIZE	RETAIL	MEMBER COST
6SV	S-2XL	\$ 27.49	\$ 21.25
BIG 6SV1	3XL-4XL	31.99	23.50
TALL 6SVT	M-2XL	30.49	22.75

DUCK ARCTIC COATS

ITEM NUMBER	SIZE	RETAIL	MEMBER COST
CQ186	34-50	\$ 69.99	\$ 51.50
BIG CQ186-1	52-54	75.99	55.50
BIG CQ186-2	56-58	82.99	59.75
TALL CQ196	38-50	75.99	55.50
BIG/TALL CQ1961	52-54	83.49	60.00
CQ182	36-50	72.49	53.50
BIG CQ1821	52-54	79.49	57.75
TALL CQ192	38-50	79.49	57.75
BIG/TALL CQ1921	52-54	87.49	62.50

■ 12-ounce 100% cotton duck with plied yarns ■ Water-repellent (re-treat after washing) ■ Lined with durable black nylon quilted to 8-ounces of polyester ■ Corduroy collar with snaps to accommodate optional hood ■ Heavy-duty zipper front with a protective windproof flap with hook-and-loop closure ■ Bi-Swing action back ■ Extra-large front combination pockets ■ Hook-and-loop closure on breast flaps ■ Waist drawstring ■ Recessed knit storm cuffs
COLORS: Brown, Navy
WEIGHT: 4.5 #



COAT - QUILT LINED

SALE CALL TOLL FREE: 1 (800) 835-1168 SALE

Name _____ Daytime Phone _____

Mailing Address (No P.O. Boxes) _____

City _____ State _____ Zip Code _____

METHOD OF PAYMENT: Cash - Check or money order enclosed payable to: **D-B Enterprises**. (Calculate full amount payable.)

MasterCard* VISA* Expiration Date of Credit Card: / /

Card No. _____

Signature (as it appears on card) _____

Item Number & Name	Color	Size	How Many	Price Each	Total Price		Weight # 's
					dollars	cents	

RETURNS: No returns accepted without prior authorization.

Fill in spaces below on CASH ORDERS only.

SHIPPING AND HANDLING CHARGES FOR MAILABLE ORDERS			
TOTAL ORDER SHIPPING WT.	RATE	TOTAL ORDER SHIPPING WT.	RATE
1 to 2 lbs.	\$ 3.95	10.1 to 15 lbs.	\$ 8.79
2.1 to 3 lbs.	4.19	15.1 to 25 lbs.	10.29
3.1 to 5 lbs.	4.98	25.1 to 45 lbs.	14.19
5.1 to 10 lbs.	6.49		

THANK YOU FOR YOUR ORDER!

TOTAL FOR MERCHANDISE		Total Weight # 's (Add like dollars & cents)
ADD SHIPPING & HANDLING (See Chart at left)		
ADD 4% TAX		
OPTIONAL FARM BUREAU LOGO \$3.50 EACH		
TOTAL AMOUNT		

Delivery 3-4 weeks.

MAIL TO: Michigan Farm Bureau % D-B Enterprises
807 Lake Avenue, Traverse City, MI 49684

TOLL FREE CUSTOMER SERVICE: Call 1-800-835-1168 if you wish to place an order for items, or if you have questions about your order. Michigan business hours: 8:30 a.m.—4:30 p.m. / Monday through Friday.

- Michigan Farm News Classifieds -

01

Farm Machinery

JOHN DEERE Manure Spreader. 450 Hydra-Push, like new condition. Call 616-979-2777 after 5:00 pm. \$3350.

White 8600 Diesel Combine with 15' grain head, 15' quick cut and 4 row narrow corn head. Good condition. Call **Thorlund Farms** 517-328-2110.

02

Livestock Equipment

PATZ-98B SILO UNLOADER fits 12' to 16' silo, large wheels, electric winch, as new. 616-772-4881.

04

Livestock

BOARS AND GILTS Hamp and Duroc, York and Chester, Downy Creek Farms, Farmland Ind. Call 1-317-468-6099.

LARGE SELECTION of registered Yorkshire and Hampshire Boars and open Gilts. Test date available now, taking orders for spring 1993. Bred Gilts. Marvin Cook, Mulliken, MI 517-649-8988.

REGISTERED ANGUS BULLS September Yearlings ready for service. Bred for high growth and moderate birth weights. Average weights for weaning, 804lbs and yearling 1220. Sired by top A.I. Bulls. Winn Farms Joe 313-367-3183, Doug 313-367-6379.

05

Help/Position Wanted

WANTED Experienced person to do general farm work. Benefits and housing available. Call 517-873-4371.

06

Agricultural Services

WOODLOT MANAGEMENT professional forestry advice, timber sale preparation, stewardship plan writing. 15 years experience. Call Tom Stadt, **TREE TECH** 616-671-4098.

BIRD FERTILIZER SERVICES. 1100 N Irving, Greenville. Fertilizer, chemicals, seed, lime, feed. Soil testing, truck spreading and custom spraying. Call 616-754-3684.

07

Auctions

KAIN AUCTION SERVICES is Booking Auctions! Farm, Real Estate, Household and General Auctions. **LARRY KAIN**, Auctioneer in Coral. 616-354-6532. All sales handled in a personal, business like manner.

09

Real Estate

135 ACRE DAIRY FARM. Barn, Silos with electric, grain bins, dryer, feed bunker, Spring fed watering area. Two bedroom home. **PRICE REDUCED! \$140,000.** OWNER FINANCING. F-599. **Faust Realty, Adriaan** 517-263-8666.

SEVENTY-TWO ACRES, 3 bedroom home, 2 fireplaces, 2 baths, stately drive lined with maples, 6500 sq. ft. horse barn, indoor arena, box stalls, fenced pastures, 2 other large barns. Must see. **Morris-Richardson Real Estate** 517-345-2828.

09

Real Estate

320 ACRE MODERN DAIRY FARM in scenic area, 15 miles from Ludington and Lake Michigan. 235 acres tillable, very good loam soil. Balance in mixed timber. Ranch type home with attached garage. Double 4 milking parlor, 70 free stall barn, separate barns for dry cows and young cattle, concrete lots, 2 harvestores, 3 concrete silos, large machinery barn, workshop, feed storage barns and grain bins. Farm in P.A. 116. Asking \$435,000. More land available. Excellent hunting and fishing. Livestock and machinery negotiable. Call 616-757-2444.

12

General

GENERAL JD 430 new engine and trans., mounted spray tanks, excellent condition. \$29,000. Call 313-395-7871.

J.D. 275 SNOWBLOWER 90" cut, hydraulic, actuating chute. \$1100. 517-543-1255.

MEAT SAW 24" Commercial, \$650. Hobart meat grinder and mixer w/attachments, commercial \$650 or both for \$1200. 313-289-1361.

ACCEPTING BIDS on a C-3 Hammond Church Organ. Send bids by November 15th. to PO Box 168, Sheridan, MI or call 517-291-3611.

MIXER Van Dale stationary OMF3 170 cu ft mixing cap. Excellent condition. \$4500. 616-345-7695, 616-344-7555.

NORTHERN MICHIGAN Christmas trees 6' to 10', blue and white spruce, Douglas fir, superior quality, cut, baled and loaded on your truck. 616-271-3543 evenings and weekends.

Announcing
A New Member Benefit

Michigan Farm News Classified

At Michigan Farm News, our commitment to serve Michigan Farm Bureau readers is always a top priority. Beginning with the September 15 issue, readers will be able to read and purchase statewide classified advertising at a cost unmatched anywhere in Michigan.

Michigan Farm News has contracted the services and skills of the Greenville Daily News, which also prints the Michigan Farm News, to operate the classified section. Experienced Greenville Classified Advertising staff will help place your ad, via the 1-800 phone line dedicated exclusively to Michigan Farm News classified users, or through the mail if you prefer. Ads can be paid for either by check or credit card if placed through the mail, or by credit card if placed over the phone.

In the Michigan Farm News Classifieds, your ad will reach 45,000 real farm family households across the entire state of Michigan. That's 45,000 actual farm family members of Michigan Farm Bureau from the southern state line to the northern reaches of the Upper Peninsula.

Deadline for next issue is November 10, 1992

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
Classified Advertising
P.O. Box 340, 109 N. Lafayette
Greenville, MI 48838**

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| 3. Farm Commodities | 9. Real Estate |
| 4. Livestock | 10. Seeds |
| 5. Help/Position Wanted | 11. Wanted to Buy |
| 6. Agricultural Services | 12. General |

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Classified Ad Code Requested _____ Number of Issues _____

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Method of Payment

Check \$ _____ (payable to Michigan Farm News Classified)

Visa Card Number _____ Exp. Date _____

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\$8 for up to 24 words

30 cents each additional word

Write your ad here, including phone number and area code

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29	30	31	32
33	34	35	36

High Capacity, Low Compaction



The new Brent Lightfoot Corner Auger Grain Cart from Unverferth minimizes compaction, travels smoothly, and carries a 1,000 bushel load.

The Lightfoot's exclusive eight wheel and tire configuration distributes the cart's 64,000 pound load evenly for a "light" footprint of just 14 psi. Fully castered front and rear wheels on each side allow for maximum maneuverability, turning ease, and eliminates the "berming" of soil associated with tracked vehicles. The eight independently operated wheels provide a smooth, level ride over field furrows and ridges without spilled grain.

The Lightfoot also features 1,000 plus bushel capacity and unloads in under four

minutes with its computer balanced 17" corner auger for fast return to the combine.

Standard Lightfoot equipment also includes rear lighting package, auger mounted spotlight, twin viewing windows, drop leg jack, heavy duty spindles and hubs, Unverferth designed gearbox, and a choice of tractor green or red paint.

This 1,000 bushel Corner Auger Grain Cart is also available as a two wheeled unit with 35.5-32 tires. Scale packages are available for both units; either factory installed, or as a simple retrofit.

For further information, contact Unverferth Manufacturing Company, Inc., P.O. Box 357, Kalida, OH 45853, or phone 1-800-332-6301.

MSU Researcher and Professor of Biochemistry Dr. Jack Preiss isolated the gene responsible for regulating starch formation.

MSU And Monsanto Researchers Engineer Starchier Potato Plants



Cheaper starch and low-fat french fries are benefits expected from new plants that have been genetically engineered to make more starch. Researchers from Monsanto Company and Michigan State University say they added a bacterial gene to potato plants and increased starch content of the potato tubers by up to 60 percent.

That's good news because of increasing demand for starch for food and for industrial uses, says Jack Preiss, MSU professor of biochemistry. One reason for this demand is that starch can be converted to sugars (corn syrup, for example) and to ethanol.

Also, because the starch replaces water, the resulting potatoes are more solid and absorb less oil when fried, offering the possibility of less greasy potato chips and french fries.

Finally, the starchier, more solid potatoes are expected to be more resistant to damage when they are harvested, trans-

ported and put on conveyor belts at processing plants.

The new potatoes are not likely to be in actual production for several years, depending upon government approval and continuing development by Monsanto. The company's policy is not to comment on timetables until testing is completed and approvals are obtained.

Preiss said the project was different from other successful genetic modifications of plants. Instead of substituting a bacterial gene for a plant gene, the researchers added a bacterial gene to supplement a plant's normal genes.

The transplanted gene is the one that regulates starch formation in *Escherichia coli*, a type of bacteria often used in experiments. It was isolated by Preiss at the University of California at Davis before he moved to MSU six years ago.

Since then, he and his laboratory associates have isolated other starch-regulating genes

from other bacteria. Some of these may also prove useful, he said.

The reason for introducing a supplementary gene, said Preiss, is that normal starch formation in plants is genetically self-regulated, automatically limiting the amount of starch that can be produced.

Preiss says it would be feasible to engineer other plants to make them produce greater amounts of starch, but there would need to be a desirable goal. For example, high-starch tomatoes containing greater than normal amounts of solids might be very useful for making tomato paste.

Preiss is well known internationally for his research on synthesis of starch. He was recently honored for his contributions by the government of Japan and the Japanese Society of Starch Science awarded him a medal for his "distinguished contributions to the mechanism of starch synthesis."

In 1990, he was given the Alsberg-Schoch Award by the American Association of Cereal Chemists, Inc., and Corn Refiners Association, Inc., in recognition of contributions to the science of starch.

A NEW MONEY SAVING HEALTH PLAN

FOR FARM OWNERS & OPERATORS

Michigan Farm Bureau of Companies

Comprehensive Hospital/Medical/Surgical

Blue Cross Blue Shield of Michigan

Assoc

FAMILY HEALTH INSURANCE PROPOSAL FARM OWNERS/OPERATORS

COVERAGE: CMM 250 CMM 500 CMM 1000

GROUP SIZE: Sole Proprietor Group Size (2-99)

Annual Premiums

Current Health Insurance	\$4,444
New Farm Bureau Group Program	3,492
Member Savings	\$ 952

Note the savings with the new Farm Bureau Plan

In these tough economic times all business owners are looking for ways to improve their bottom line. Now Farm Bureau can help with a new money saving group Health Plan from Blue Cross Blue Shield of Michigan.

These new plans are guaranteed issue no matter what your health history, locally serviced by our 69 county offices and 400 agents statewide, and competitively priced to save farm owners and operators hundreds or even thousands of dollars off their health insurance bill. So, if you're a sole proprietor or if you have one or more employees, you should call Farm Bureau today for benefit and rate information.



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Please mail to: Michigan Farm Bureau Membership Services P.O. Box 30960 Lansing, MI 48909

Please Print

Name _____ Current Health Insurance _____

Address _____ Number of Full Time Employees _____

Phone _____

County _____

Type of Farm/Business _____

Sole proprietor (1 person group)

2-4 5-9

10-24 25 and over

Proper Management Can Prevent Damage to Stored Grain

Improperly adjusted combines, wet weather and molds at harvest can all come back to haunt corn growers with on-farm grain storage. Mechanical damage to grain causes specific storage problems while also acting as a catalyst to molds and fungi, according to Fran Marier, Northrup King Co. agronomist.

Broken kernels may cause more tightly packed bins as fines fill air spaces. This hampers air movement during drying and cooling, leaving pockets of wet grain and hot spots in the bin.

Marier says broken kernels also prompt an invasion of mold and fungi, in two important ways. First, damage to the kernel provides an entry point for infection. In addition, the pathogens causing mold thrive in the moisture and heat generated by pockets of fines. Marier also cautions growers to be on the lookout for ear molds this fall, especially in fields which received excessive moisture in September.

Corn growers can minimize mechanical damage to grain during harvest by monitoring and adjusting combine cylinder speed and concave settings when moving from one hybrid to another.

Before growers put the crop into a bin, Marier recommends screening the grain, removing as much mold and as many fines as possible.

After filling, he says some growers remove a load of grain from the bin to draw out fines and broken kernels which tend to fall to the center. Marier also prescribes continual monitoring.

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