

MICHIGAN FARM NEWS



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Michigan Agricultural Aviator's "Operation Safe" a Success

Imagine trying to analyze your spray rig's spray pattern while travelling 140 miles per hour, covering a 60 foot swath over your fields. Seems nearly impossible, doesn't it?

But, thanks to one-of-a-kind calibration equipment and the joint efforts of the Michigan Agricultural Aviation Association, the Michigan Department of Agriculture and the Cooperative Extension Service, that big task is made relatively quick and easy during an annual agricultural aviator fly-in.

Nearly 30 pilots from Michigan, Ohio, Indiana, Illinois, and Wisconsin attended the two-day program recently near Pinconning, honing their skills by testing their equipment and themselves, according to Bill Hatfield, an agricultural pilot of 27 years from the Nunica area.

"We consider this program very important because we can prove where the pesticide has gone from the time it has been mixed into the mix tank until it has been sprayed," explained Hatfield. "Using the equipment we have available, we can analyze the quantity of the material that has been deposited and where."

The high-tech equipment Hatfield referred to includes a computerized swath deposition system utilizing spray cards that are ana-

lyzed via computer to graphically demonstrate the spray pattern of the plane. There are only 12 such systems in existence in the world. In addition, a measuring kit originally developed by NASA uses string and photo analysis to verify calibration of the equipment.

During the morning portion of the program, each plane flies two passes across the string and the spray cards, spraying a mixture of water and red dye to simulate an actual spray pass. The cards are passed before a light to capture the pattern on a computer, while the string is wound up on a spool and fed into a computer for image analysis.

According to Hatfield, after the analysis, spray equipment adjustments are made accordingly, which may include changing the nozzle or boom placement, or changing plane height while in the spray pattern. The plane is then retested by flying another two passes over the string and cards. "We basically try to fine-tune the pilot and the equipment to do the best job possible," he said.

According to Hatfield, the growing environmental sensitivity has put a damper on the more traditional agricultural aerial pesticide application. The increased need for gypsy moth and mosquito control, however, has created new business opportunities as



Traveling at 140 miles per hour, just three to five feet off the ground, this Air Tractor AT-400, manufactured in Texas, makes a pass across the string and test cards during the calibration trials at the fly-in. The plane, flown by Mike Schiffer of A1's Aerial Spraying from Ovid, is powered by a 680-horse Pratt and Whitney turbo-prop and is equipped with a 400-gallon hopper.

well as new relationships for the industry. "Often times, various groups will be pushing a biological insecticide versus one that may be more hazardous to the environ-

ment," he said. "We try to be involved with those groups and justify the use of alternative pesticides, as long as it's economically feasible."

Sen. Posthumus - State's Political Conflicts a Difference of Visions

The political battles taking place in Lansing and Washington, D.C., aren't just petty partisan politics, but actually a change of attitude about government that will shape the future of Michigan and the United States, said Senate Majority Leader Dick Posthumus (R-Alto), during comments at a recent MFB board of directors meeting.

"The battle in Lansing is, in fact, a major conflict of visions of the direction of Michigan," Posthumus explained. "It's time for those of us who believe in smaller government to move Michigan in that direction so that each of us can take control of our own lives, based on individual incentives."

Posthumus, who owns and operates a 600 acre cash crop farm near Alto, likened the challenge faced by Gov. Engler and Michigan Republicans to that of turning around a herd of runaway cattle, saying that although it's been a slow process with considerable conflict and confusion, the steps taken to cut state spending and down-size state government have been necessary.

"Some people said why not take more time and avoid radical changes so quickly," Posthumus related. "I'm here to tell you we didn't have any choice unless we wanted to face disaster."

Turning to future areas of change, Posthumus suggested Michigan focus on revision of its educational system to force competition amongst schools, and a revised

tax structure that will attract industry, not chase it across state lines.

Posthumus said the current educational system has developed into a monopoly that's producing graduates who aren't properly trained to meet the needs of industry and doesn't allow a parent to make a choice of where their children can go to school.

"I can choose where to buy toilet paper for my house, but I can't choose where to send my children to school," argued Posthumus. "Look at higher education, and you'll see people from all over the world coming to our universities because they're good enough to attract those students. MSU is not guaranteed it will have 40,000 students next year. They're competing with U of M, Wayne State, Central and Western."

Michigan's tax future may be one without a single business tax, according to Posthumus, who feels the tax served Michigan well as a manufacturing economy, but that it's a disincentive for attracting service industries to Michigan.

Posthumus said Engler's Cut-and-Cap proposal is designed to cut property taxes by 20 percent over a five-year period and cap future assessments to three percent increases or the rate of inflation, whichever is less.

"It's absolutely necessary that we get this (Cut and Cap) passed for the overall economy of Michigan," Posthumus said. "This measure is a critical first step in putting Michigan in line to compete in the future."

And they're off...finally!

A wet and cool spring has frustrated many Michigan farmers, delaying field work and slowing development of overwintering crops. At right, spring field work gets underway at the Jim May farm near Sparta in Kent County.

Sugarbeet producers will be especially anxious to make up for lost time with only 5 percent of total acreage actually planted, compared to 70 percent on average as of May 4.

Fruit growers have apparently survived severe frost damage, according to Craig Anderson, assistant manager of MACMA's Apple Division. He says production potential remains excellent at this point across most parts of the state.



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Election Year 1992 – Utilizing the AgriPac Process for Agriculture's Benefit

To some degree, every election is important to farmers. But the 1992 state legislative and congressional races here in Michigan are probably the most agriculturally significant of this decade. Reapportionment has redrawn districts across the state in a manner that offers some new opportunities for representation of agricultural concerns. In addition, retirements have created six open U.S. House seats. These changes offer a chance for those of us in the agricultural community to uniquely influence the election process.

Government is becoming increasingly involved in agriculture through rules and regulations on wetlands, air and water quality and conservation. In addition, government decisions on tax, fiscal and monetary policy have a significant impact on the farm economy. So it is critically important to support and elect candidates who have a first-hand knowledge of the agricultural industry.

At the same time, candidates shouldn't necessarily be backed simply because of their farm background. An effective officeholder must be someone who can successfully handle political pressure, make compromises, communicate well and represent all the members of his or her district.

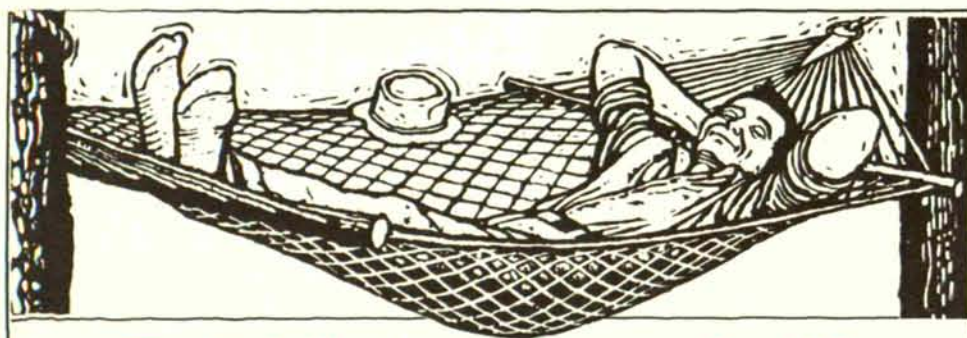
Deciding who to support for public office can be a difficult decision. Luckily, Farm Bureau makes the process easier by providing a process for carefully evaluating candidates and their value to the agricultural industry. Across the state, county Farm Bureau Candidate Evaluation committees have received training on how to evaluate potential candidates for political office. That evaluation can include personal interviews, written response to questionnaires, voting records and personal acquaintance.

Following these evaluations, the county committees will make primary election endorsement recommendations to the Michigan Farm Bureau AgriPac. The criteria for endorsement recommendations of incumbent candidates includes county Farm Bureau member input, voting record on issues of significant importance to agriculture, communication to farm constituents and involvement of agricultural people in the election campaign. Criteria for non-incumbent candidates are input from members, dedication to the campaign, involvement of agricultural people, recognition of the importance of agriculture to the local economy and position on agricultural issues.

After reviewing these county committee recommendations, AgriPac endorses candidates for the Aug. 4 Primary Election. In early fall, AgriPac also endorses statewide candidates nominated at political party conventions.

This month, all Farm Bureau members should look closely at the list of candidates for public offices. Examine their stand on the issues, and determine how those stands fit with Farm Bureau policy. If you feel strongly about the merits of a particular candidate, contact your county Farm Bureau Candidate Evaluation committee. This is an opportunity to use your organization to effectively influence our political system.

Jack Laurie
Jack Laurie, President
Michigan Farm Bureau



The livin' is easy at Summerfest '92

It's the summertime event that's just for fun, so join your friends and neighbors at Summerfest '92, Wed., July 15. Get your tickets early to be one of the 2,500 enjoying a delicious grilled steak dinner (with ALL the trimmings), beverages and desserts. There'll be plenty of fun for young and old with country music and games to test your skill.

Just complete this order form and mail to: Michigan Farm Bureau Field Operations Division, P. O. Box 30960, Lansing, MI 48909. **Order DEADLINE is June 30.** Enclose your check or money order made payable to the Michigan Farm Bureau. Tickets are \$ 4 each.

Name _____
Address _____
City/State/Zip _____
County Farm Bureau _____
AMOUNT ENCLOSED (TOTAL) _____

In Brief...

FPC Streamlining Operations

Farmers Petroleum Cooperative, Inc. (FPC), a regional cooperative formed in 1942 by the Michigan Farm Bureau, has announced plans to streamline the cooperative to be a more effective supplier of farm supplies for the local cooperative network in the future.

At a meeting on April 23, 1992, the board of directors of FPC directed management to pursue a plan that would divest the cooperative of retail center operations. The move will enable the cooperative to more efficiently use its assets to support the marketing efforts of the local cooperative structure.

The board of directors is committed to posturing the cooperative to positively affect the wholesale farm supply needs. When the plan is carried out, it will allow FPC to focus its efforts on its distribution function to its member cooperatives and dealer base. "We have to address the needs of our members and owners while guaranteeing a viable, profitable future for FPC," said John Feland, executive vice president and chief executive officer.

In addition to the wholesale supply of traditional items such as fuel, TBAs, lubricants, and livestock equipment, FPC will maintain its propane operation, pursuing the supply of this important energy source for the rural Michigan market. FPC supports local cooperatives in propane distribution, as well as operating two retail propane distribution centers at present.

Michigan Farmland Value Inches Upward

The average value of farmland and buildings in Michigan was \$1,105 per acre on Jan. 1, 1992, up \$20 per acre or two percent from Jan. 1, 1991, and \$100 per-acre above two years ago, according to the Federal/State Michigan Agricultural Statistics Service. This is the fifth consecutive year that the average nominal price of farm real estate in Michigan has risen. The average cash rent for cropland in Michigan in 1992 was estimated at \$47.40 per acre, up \$1.90 from 1991. The average cash rent for pasture this year was set at \$19.60 per acre; that compares with \$21.70 in 1991.

The nominal price of farmland in states bordering Michigan continued to rise slightly as well. The value of agricultural land in Indiana rose two percent from 1991 to \$1,303 per acre. The increase in Wisconsin was also two percent, reaching \$870 per acre. The Ohio farmland price was \$1,249 per acre, a jump of three percent. Average 1991 cash rents for cropland in Indiana, Wisconsin, and Ohio were \$85.70, \$51.40 and \$70.20 per acre, respectively.

P.A. 116 Upheld in Kalamazoo Decision

A recent decision by the Michigan Department of Natural Resources (DNR) in Kalamazoo County will strengthen the Farmland and Open Spaces Act (P.A. 116) as a tool to protect Michigan farmland, thanks in large part to the efforts of Kalamazoo County Farm Bureau members.

The Kalamazoo County board of commissioners had requested that the DNR terminate a P.A. 116 contract so the property could be used for landfill development, even though the site was ranked 9th out of 10 potential sites for the project.

In response, the DNR cited six reasons for refusing to break the P.A. 116 contract, including the fact that three of the more feasible sites were not impacted by P.A. 116. Other reasons included the lack of evidence that the landfill would be publicly owned and operated; in order for the landfill to be operated at the proposed site, other P.A. 116 contracts would have been broken; the original holder of the P.A. 116 contract had indicated they were not willing to terminate the contract; and the land in question was bound by a P.A. 116 contract for 30 and 35 years.

According to MFB Legislative Counsel Ron Nelson, the DNR's decision to uphold the P.A. 116 contract is significant for Michigan farmers. "It shows developers, both public and private, that land contracted under the Farmland and Open Spaces Act, is protected," he said. "P.A. 116 contracts will preserve farmland unless there is no alternative."

Fewer Cows Still Produce More Milk...

Milk production in the 21 major producing states rose slightly in March, compared to a year earlier, even though the number of dairy cows on farms declined by 13,000 head from February and by 200,000 from March 1991, according to the USDA's Agricultural Statistics Board.

Among the top five producing states, Wisconsin and Minnesota producers held production below a year ago, by 2.4 and 2.1 percent respectively. New York, Pennsylvania and California gained in production for the month, by 2.5, 2.4 and 1 percent.

Production per cow in the 21 states averaged 1,343 pounds for the month, up 33 pounds from a year ago. Only Illinois, North Carolina and Tennessee had lower production per cow for the month. California, Tennessee and Washington had more cows on farms this March than last.

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CAPITOL

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Wetlands**MFB Position**

Farm Bureau strongly supports H.R. 1330.

MFB Contact

Al Almy, Ext. 2040

House Resolution 1330 would provide reasonable, common-sense protection of wetlands, if enacted, putting a stop to federal agencies declaring areas that are dry more often than wet as wetlands. Recently, Congressman Bob Davis (R-Gaylord) became a cosponsor of H.R. 1330. This brings the number to five of Michigan congressmen who are cosponsors of the bill.

Also, the 7th Circuit U.S. Court of Appeals recently issued what appears to be a significant ruling on wetlands. The court ruled that EPA exceeded its authority in levying a fine against a home builder for filling a small depression in the middle of a farm field. The court said some wetlands fall outside federal jurisdiction if they are isolated or not directly associated with a river or lake. The EPA may appeal the ruling to the U.S. Supreme Court. The AFBF will obtain a copy of the ruling and determine how the factual issues fit with Farm Bureau's current concerns over wetlands.

Farm and Animal Research Facility Protection Act**MFB Contact**

Al Almy, Ext. 2040

Congressmen Fred Upton (R-St. Joseph) and John Dingell (D-Dearborn) have joined the list of cosponsors of H.R. 2407. In addition, Reps. William Broomfield (R-Birmingham), Dave Camp (R-Midland), Bob Davis (R-Gaylord), Paul Henry (R-Grand Rapids), Carl Pursell (R-Plymouth), Guy Vander Jagt (R-Luther), and Howard Wolpe (D-Lansing), have signed as co-sponsors of H.R. 2407.

Farm Bureau Position: Farm Bureau supports H.R. 2407 which would make it a federal crime to disrupt, destroy property, or steal animals at a biomedical, agricultural research facility or farm.

AFBF Statement to Democrat/Republican Platform Committees

AFBF has presented an identical statement to the platform committees of the national Democrat and Republican parties. The platform committees will draft a platform for consideration and possible approval at their respective national conventions this summer. Following is a summary of AFBF recommendations to the platform committees:

Federal Economic Policy - Farm Bureau supports all fiscal policy alternatives that have the net impact of reducing the tax and regulatory burdens on businesses and households. Specifically, we support the following changes in economic policy:

1. Index capital gains for inflation and cut the capital gains tax rate;
2. Change depreciation schedules to allow quicker recovery of investments;
3. Cut Social Security taxes, especially the burden on the self-employed, and convert to a pay-as-we-go basis;
4. Increase the personal exemption for income taxes to offset the negative impact of inflation since 1948;
5. Put a two-year moratorium on all federal regulations;
6. Freeze all federal outlays, including entitlement outlays, for the coming year at current year levels;
7. Pass a constitutional amendment requiring Congress to operate on a balanced budget through spending control;
8. Give the president line-item veto authority;
9. Reinstate a permanent investment tax credit.

International Trade - Trade policies should promote, rather than retard, the growth of world trade. Current trade negotiations should result in a significant cutback in export subsidies, open foreign markets to U.S. products, reduce trade distorting domestic subsidies and eliminate the use of health and sanitation standards as trade restrictions. The U.S. should not unilaterally eliminate import restrictions and subsidies without equivalent commitments by other countries. Should other countries persist in using unfair trade practices, the U.S. should impose countervailing duties and/or other appropriate measures.

Environmental Policy and Property Right Protection - Increasingly, new laws and regulations ignore constitutionally protected ownership rights and incentives for economic productivity. When landowner use of property is impaired by government decree, compensation must be made. Environmental improvements can best be achieved through policies based on incentives and performance standards, rather than by imposing land use restrictions and penalties, command control regulations, and government prescribed technologies.

Health Care Reform - We believe that health care is primarily the responsibility of the individual. We strongly support efforts to improve the present health care delivery system. Future health care policy changes should embrace the following principles:

1. Promotion of personal wellness, fitness and preventive care as basic health goals;
2. Minimal government intervention in decisions between providers and receivers of health care;
3. Federal tax policies that encourage individuals to prepare for future health care needs;
4. Direct government financial assistance for those who are economically unable to pay for health care needs;
5. Government programs like Medicare and Medicaid properly compensate providers.
6. A 100 percent deduction from federal income tax for health insurance premiums paid by self-employed people is needed immediately.

MFB Contact: Al Almy, Ext. 2040

Michigan Statewide Trail System**MFB Position**

Farm Bureau offered several amendments to the package consistent with MFB policy on abandoned railroads. The bill includes language to allow a trailway to be closed temporarily to allow pesticide application on lands adjoining the trailway. The entity operating the Michigan trailway may arrange with a landowner, or other person, for the posting of signs or the closure of the trailway during pesticide application and appropriate reentry periods. Farm Bureau worked closely with the sponsors of the legislation to address concerns of adjacent private property owners and did not oppose the package of bills.

MFB Contact

Vicki Pontz, Ext. 2046

A package of Senate bills, known as the Michigan Trailways Act, has been introduced to provide for a system of state trailways to be used for public recreation activities. S.B. 834, sponsored by Sen. Geake (R-Northville), sets up criteria for a Michigan trailway, authorizes the Natural Resources Commission to purchase land for use as a future Michigan trailway, creates a Michigan trailways trust fund, and allows the formation of a Michigan trailway management council made up of local units of government for the management of a Michigan trailway.

S.B. 835, sponsored by Sen. James Barcia (D-Bay City), amends the State Transportation Preservation Act of 1976 and requires that DNR preserve the right of way of any MDOT-owned railbed for future use as a railroad line and shall not permit any action which would render it unsuitable for future rail use.

A substitute for S.B. 92, earlier introduced by Sen. Ehlers, would release private property owners from liability for injuries to a person who is on their land or premises to enter or exit from or use a Michigan trailway. The three bills are all tie-barred and were reported out of the Senate Natural Resources Committee in late April.

The language in S.B. 834 (S-1) allows the Natural Resources Commission to designate a Michigan trailway only if potential negative impacts of trailway development on owners or residents of adjacent property are minimized through all of the following:

- a) Adequate enforcement of Michigan trailway rules and regulations;
- b) Maintenance of trailway crossings for agricultural and other purposes;
- c) Construction and maintenance of fencing at the expense of the trail owner or operator, where necessary;
- d) Other means as considered appropriate by the commission.

Heat Stress Prevention**MFB Position**

Farm Bureau testified in opposition to these rules, calling them far too broad and burdensome. A public hearing was conducted on April 28, with testimony from 20 individuals and groups. All were not only opposed, but saw no need for the rules at all and requested they be exempted if the rules were adopted.

MFB Contact

Howard Kelly, Ext. 2044

The Department of Public Health, Occupational Health Standards Commission is proposing administrative rule changes on heat stress that include the following, according to the *Michigan Register*:

"The proposed rules apply to work situations where employees are subjected to factors and conditions which are likely to result in a health or safety risk. These performance type rules require employers to evaluate their work and work places for heat stress, to take corrective actions, to provide education and training for employees subject to heat stress, to investigate employee complaints of heat stress, and to create a written heat stress program. These rules are supplemented with extensive informational appendices which were written to assist an employer in understanding heat stress and what actions are required by the proposed rules."

Farm Bureau opposed the heat stress rules and urged further consideration of them be abandoned. Points presented during Farm Bureau testimony included:

- Farm Bureau does not feel there is a clear and convincing need for these rules and, therefore, under the MIOSHA law, they should not even be proposed for consideration. We hope this hearing will demonstrate that there is no basis for this proposed regulatory overkill.

- From a Farm Bureau policy standpoint these proposed rules are not appropriate and are more strict than existing federal OSHA standards because none exist; they are excessive upon the employer; they are not practical; they do not show factual documentation of need; and they do not actually help to administer basic first aid to injured workers.

- Farm Bureau urged the department to consider the first aid poster suggestion in an effort to provide real benefits and to discontinue any further consideration of these proposed rules.

The hearing testimony will be reviewed by the Occupational Health Standards Commission at a future meeting. If the rule changes are approved, they will be sent to the Joint Committee on Administrative Rules for further consideration.

Michigan Farm Bureau
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Weather

Cold, wet weather continues to be a problem for most outdoor activities in Michigan. Preliminary data for April indicate above normal precipitation for many areas in the state, causing lengthy delays in spring fieldwork. Some sections of the central and eastern Lower Peninsula received more than 200 percent of normal precipitation during the period.

Compounding the delays were below normal temperatures and above normal cloudiness for nearly all areas, which greatly slowed evaporation rates and spring growth of overwintering crops.

Base 50 degrees F growing degree day accumulations since March 1 reflect the below normal temperatures and continue below normal in all areas of the state. In terms of time, degree day accumulations and the development of many crops now generally lag 5-10 days behind normal.

30 and 90 Day Outlook

Will these trends continue? Latest forecast guidance suggests the answer is yes, at least for the next few weeks. The National Weather Service 30-day outlook for May calls for temperatures to continue below normal, but for precipitation to be more near the normal. Normal rainfall for the

30-Day Outlook, Cooler Than Normal

4/1/92 to 4/30/92	Temperature		Growing Degree Days		Precipitation	
	Observed	Dev. From Normal	Actual Accum.	Normal Accum.	Actual (Inch.)	Dev. From Norm
	Mean					
Alpena	38.9	-1.6	20	60	2.61	-0.09
Bad Axe	41.0	-3.1	42	108	4.92	+2.37
Detroit	46.8	-0.5	104	131	4.28	+1.07
Escanaba	36.3	-2.7	1	24	2.14	-0.29
Flint	44.3	-1.7	81	131	3.84	+0.63
Grand Rapids	44.4	-1.7	79	149	4.03	+0.62
Houghton	36.8	-0.6	17	56	1.23	-1.05
Houghton Lake	40.2	-2.6	46	101	3.15	+0.63
Jackson	44.9	-2.4	104	146	2.67	-0.52
Lansing	44.1	-1.8	83	146	4.13	+0.94
Marquette	35.3	-1.6	17	56	1.71	-0.57
Muskegon	43.3	-2.0	61	101	3.30	+0.14
Pellston	39.5	-0.4	42	72	2.64	-0.05
Saginaw	43.2	-2.3	59	108	5.31	+2.76
Sault Ste. Marie	35.7	-2.3	4	24	2.44	0.00
South Bend	46.6	-2.4	151	149	2.30	-1.11
Traverse City	41.6	-0.6	56	72	1.96	-0.73
Vestaburg	41.0	-4.7	56	111	4.58	+1.51

Observed and normal growing degree day totals are accumulated from March 1. Normals are based on district averages.

month ranges from just over 3.5 inches in the western Upper Peninsula to about 2.5 inches across northern and central sections of Lower Michigan to near 3.0 inches along the southern border. Looking further ahead, the new 90-day outlook for May through July indicates a change to above normal temperatures. Precipitation during the period is expected to be near normal.

Jeff Andresen, Ag Meteorologist, MSU

Michigan and Major Commodity Area Extended Weather Outlook

T - Temp.	5/15.....5/30	5/15.....7/31
P - Precip.	T.....P	T.....P
Michigan	B.....N	A.....N
W. Corn Belt	B.....N	A.....N
E. Corn Belt	B.....N	A.....N
Wint. Wheat Belt	N.....N	A/N.....N
Spr. Wheat Belt	A.....B/N	A.....N/B
Pac. NW Wheat	A.....N/B	A.....N
Delta	B.....N	N.....N
Southeast	B.....N	N/A.....N
San Joaquin	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

Crop Updates - Planting Season Behind Averages in Midwest

Michigan

As of May 4, the only items planted thus far had been a few tractors, according to one Michigan farmer. Corn planting was reported only 3 percent complete compared to 5 percent for last year and the five-year average of 15 percent, according to the Michigan Agricultural Statistics Service. Sugarbeet planting is seriously behind average, with only 5 percent planted compared to 10 percent last year and the five-year average of 70 percent.

Wheat is reported 15 percent excellent, 40 percent good, 30 percent fair, and 15 per-

cent poor to very poor. Oats seeding is behind considerably also with just 25 percent reported planted compared to 45 percent last year, and the five-year average of 70 percent.

Ohio

Ohio was reporting corn only 6 percent actually planted, down from 28 percent a year ago, and the five-year average of 44 percent as of May 5. Less than 1 percent of the soys were reported planted compared to 6 percent last year and the 8 percent five-year average.

Oats were 74 percent planted with 57 percent emerged, compared to 88 and 64 percent a year ago. Winter wheat continues to improve with the crop now rated 6 percent excellent, 32 percent good, 38 percent fair, 16 percent poor, and 8 percent very poor.

Hay was reported mostly fair to good, with Southeast Ohio expecting to cut hay within two weeks if the weather holds. Alfalfa weevil infestations were reported across the state except in north and northwestern sections.

Soil moisture was rated 4 percent short, 63 percent adequate, and 33 percent surplus, with most of the surplus located in western and northern sections.

Indiana

Corn planting as of May 5 stood at 16 percent complete, compared with 33 percent a year ago and 39 percent for the five-year average.

Indiana's wheat crop was reported improving, but still remains in below normal conditions throughout the state. Wheat was rated 12 percent good, 57 percent fair, 21 percent poor, and 10 percent very poor. Oat seeding was 79 percent complete compared to the five-year average of 86 percent.

Top soil moisture was rated 3 percent short, 72 percent adequate and 25 percent surplus. Subsoil moisture was 12 percent short, 73 percent adequate, and 15 percent surplus.

Illinois

Illinois corn planting as of May 5 was reported 33 percent complete, down from 57 percent in 1991, and 56 percent from the five-year average. Reports of yellow corn from frost damage are also circulating. Four percent of the soybeans were planted compared to the five-year average of 10 percent.

Oat seeding was 92 percent complete, with the crop reported 5 percent excellent, 76 percent good, 17 percent fair, and 2 percent poor. Wheat was rated 2 percent excellent, 36 percent good, 31 percent fair, 15 percent poor, and 16 percent very poor.

Alfalfa was rated mostly good to fair, although extensive alfalfa weevil damage was reported in southern sections of the state. Cutting of the first crop is just getting underway. Soil moisture was rated 9 percent short, 82 percent adequate, and 9 percent surplus.

Iowa

Ideal planting conditions allowed corn planting to progress ahead of 1991 levels, with 22 percent of the acreage planted compared to 13 percent last year, but still behind the five-year average of 38 percent.

Oat seedings were reported 95 percent complete, with the crop rated 5 percent excellent, 53 percent good, 37 percent fair, 5 percent poor. Wheat was rated 5 percent excellent, 31 percent good, 34 percent fair, 15 percent poor and 8 percent very poor.

Topsoil moisture supplies were 12 percent surplus, 87 percent adequate, and 1 percent short. Subsoil moisture was 26 percent surplus, and 74 percent adequate.

MFB Supporting Groundwater Protection Efforts

MFB is supporting the Michigan Department of Agriculture's efforts to develop a groundwater protection proposal. Vicki Pontz, legislative counsel for MFB, said the proposal will focus on prevention, through research, education and demonstration programs targeted at farmers, of non-point source pollution caused specifically by agriculture.

Farm Bureau has been actively involved in a wide range of groundwater protection activities, according to Pontz, including distributing Water Quality Self-Help checklists; working closely with the Institute of Water Research in developing and promoting the "Agriculture's Role in Protecting Groundwater" program; helping to introduce in Michigan the Farmstead Assessment System to protect groundwater drinking supplies; and supporting Right-to-Farm management guidelines on pesticide and fertilizer usage.

"Through our 'Farmers - Professionals From the Ground Up' campaign, Farm Bureau has aggressively promoted innovative planting, tilling and harvesting techniques that emphasize agriculture's responsibility for maintaining and improving groundwater quality," said Pontz. "It's not only good business - it's good environmental stewardship."



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Seed Corn Handling Takes a Page From GM

Material handling technology used at General Motors plants and food processing facilities transformed Northrup King's Phillips, Neb., plant into a state-of-the-art production facility to assure corn growers of quality seed. The \$3.4 million renovation features a unique, automated bulk storage and handling system dedicated exclusively to hybrid seed corn production.

Engineers began the renovation by replacing conventional grain bins with a single bulk storage building which houses rectangular gravity-flow bins. They installed slow-moving belts and let-down ladders to transfer seed corn from the dryer to the sheller, on to the conditioning tower and eventually into bags.

Next, they added automated process-flow controls to direct seed through one of 29 conditioning sequences. Finally, they adapted a sophisticated and proprietary computer software program from automated manufacturing applications to link and control all facets of the system.

This new technology brings all seed handling indoors, replacing manual transfer from bin to bin with gentle automated seed handling. Instead of climbing grain bins, employees monitor production by computer and enjoy better working conditions.

Mark T. Wall, director of quality assurance and former Phillips plant manager, summarizes what this means to corn growers.

"Automated handling significantly reduces mechanical damage to seed, resulting in better germination," Wall says. "The new seed-handling process helps assure customers of vigorous stands and high yields."

Going No-Till in Dry Beans and Sugarbeets

The idea of no-till dry beans may seem strange. Even stranger is the thought of no-till sugar beets, but one Michigan farmer is out to prove it can be done.

Midland county cash crop farmer Jerry Wirbel farms 1,000 acres outside of Hope with his wife, Pearl, and son, Louis. "I've always said that no-till would not work in a sugar beet, corn and dry bean rotation," Wirbel said. But after listening to Jerry Grigar from the Michigan Soil and Water Conservation speak at a local tillage meeting, Wirbel decided to try it.

Working with the Michigan Agricultural Stewardship Association (MASA), of which he is president, he used conventional tillage and 30-inch rows on a 25-acre plot of dry beans and no-till with 7 1/2-inch rows on a 5-acre plot. The no-till beans yielded 73 pounds per acre more.

"This extra yield gave me \$10.95 an acre more," he said. "Plus, I didn't have to field or row cultivate." Wirbel was so impressed with the results, that he purchased a no-till drill to plant all his dry beans in 1992.

Wirbel says no-till has many advantages over conventional tillage: requires less time, less inputs, less cost, not to mention the environmental benefits. "We used to plow our cornstalks under and had soil erosion problems," he said. "No-till is just better for the environment and the soil. I've even noticed more earthworms."

Wirbel warns that no-till is not something you can just jump into and expect it to work. You have to learn. He knows people who have tried no-till dry beans in 30-inch rows and they just haven't done well. He believes the secret is narrow rows and a tall variety with a strong root system. This



Louis (left) and Jerry Wirbel with their new no-till drill that will be used to plant all their dry beans this year after a successful field trial last year.

method also allows Wirbel to direct harvest his dry beans. "We're saving time during harvest and it's less expensive," he said.

Wirbel's next project is no-till sugar beets. He's planning to plant them where he had the no-till dry beans last year. "I didn't touch the no-till bean ground last fall and I'm not going to till it this spring - just plant the sugar beets and cultivate them."

Wirbel is concerned with crop residue from the dry beans. "I don't think I'll have a problem planting the sugar beets, but I may have trouble cultivating them," he said. Last fall he scratched the surface where he had conventional-till dry beans.

He thinks that may have to be the standard practice for no-till sugar beets in rotation after dry beans. "I may have to do some minimum tillage in the fall on the bean fields, just to level the ground and move the straw around a little bit, so it'll rot away instead of laying on top," he explained.

People ask Wirbel why he changed his tillage system. To him the answer is obvious; environment and economics. "I told a fertilizer salesman what I was doing and he thought I was crazy," Wirbel said. "He told me it wasn't going to work. Well, I've always said the same thing, but now I'm proving that it will work."

• FARM BUREAU MEMBER SERVICE •

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This adventure is for those who want to escape from the normal "hustle bustle" of daily life. Upon arrival at Calgary's airport, an automobile and directions to your first night's lodging will be provided. The next day, with a detailed map and itinerary in hand, you're off on the adventure of a lifetime.
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Market Outlook

Dr. Jim Hilker, Dept. of Agricultural Economics, Michigan State University

Corn

With planting progress being a day-to-day call due to weather, and since there's enough soil moisture in most of the Corn Belt that a lack of rain would not have a noticeable effect until at least June, and given the relatively low stocks, but plenty if we have a good crop, there is still a large number of price scenarios that could develop for both old and new crop.

It also means the market is liable to be very volatile. This means we are in a situation where rallies could be quite sharp, but at the same time quite short. This period could be critical to those who have a lot of old crop remaining and those who have not priced much, if any, new crop. Consider setting yourself both some price objectives and floors.

The basis is relatively tight in Michigan which means that local demand is strong, but worldwide the demand for corn has been weak. U.S. exports need to run 28.5 million bushels per week to meet the USDA

Wheat

By the time you receive this report, the first Winter Wheat Crop Production Report will have been released on May 11. However, this will not be the final call; there are still a lot of dry areas where there are considerable weather risks.

The Kansas wheat tour projected production only slightly higher than last year, but there is considerable room for change in that number with the western half having more potential, but in need of moisture.

Unlike corn, there is not only the supply side concerns for wheat in the near-term,

Soybeans

The picture is at least as cloudy for soybeans as for corn and wheat. While the size of the soybean crop in South America is pretty well determined, their exportable amounts are not yet clear.

While it is clear there will be more South American beans available this year for export than last, they will not return to the levels of two years ago. On the supply side, due to somewhat delayed corn plantings, planted acreage has again become a variable along with yield uncertainty.

Cattle

The April 1 quarterly 13-State and monthly 7-State Cattle-On-Feed Reports released April 24 were bullish for the supply side of the cattle market, but demand has been weak for this time of the season. The reports showed that feedlots are down 10 percent in the number on feed compared to the same time last year.

It also showed that placements in the January-March period were down 5 percent, with February placements being down 12 percent in the 7-State Report. Marketings were slightly above year ago levels.

Steers in the 700-1,100 pound range were reported as 85-87 percent of year ago levels. Slaughter the last three weeks of April were

Hogs

Hog slaughter ranged from down 1 percent to up 5 percent the last three weeks of April. This is within the range the last Hog Inventory Report indicated, but on the lower side of the range. These slightly lower than expected supplies, and retailer's featuring pork versus the higher-priced beef, is showing up in the market as higher than expected prices for market hogs.

Seasonal Commodity Price Trends

Wheat	↑ ?
Corn	↑ ?
Soybeans	↑ ?
Hogs	↑
Cattle	↓ ?

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

projections by the end of August. This is near the rate we have been running, but new sales have been slow. And the Argentina crop is looking better than projected.

The bottom line is, the corn market is not likely to get help on the demand side in the short-run; all the action will be on the supply side.

but also much uncertainty on the demand side. The allocations, both in terms of size and timing, to the CIS, continues to play a dominant role. Another major concern is the very slow pace of new crop export sales. They are at a very low level compared to a typical year.

If there is a rally after the May USDA reports and you have not priced much new crop wheat, consider setting several pricing objectives and amounts to price into the rally, and then pulling the trigger if the market reaches those levels.

At this time, new crop prices are still above what fundamentals would suggest due to a weather price risk premium in the market.

Unless there's concrete information that November soybean futures will continue to go up, consider doing some new crop pricing if November futures make it back to the \$6.15-6.25 range and then price small amounts into a rally if it continues. Remember, with normal yields acreage this year, harvest prices will be in the \$5.30-5.70 range.

down 2-11 percent from last year, yet prices are much lower.

The reason for the lower prices seems to be on the demand side. Part of it can be related to the increase in pork and poultry available to the market and to lower real incomes. While the economy seems to be turning around, it may take some time for this to show up in the cattle market.

Lower placements also mean there are more feeders available, which means eventually placements will increase. But this delay does not seem to be in the summer cattle futures. **At this time, keep current -- there doesn't seem to be any good forward pricing opportunity.**

Keep current, but watch for both short-term and long-term pricing opportunities on rallies. The second half of the year supplies will likely be higher. Beef supplies will also likely increase by the end of the summer providing more competition. For those needing more corn and meal for the summer, consider making part of those purchases to avoid paying very high prices if a drought occurs.

Two Midwest Farm Credit Banks Merge

The Farm Credit Banks of St. Paul, Minn., and St. Louis, MO., officially merged May 1 to become Agribank FCB. Now the largest bank in the Farm Credit System, Agribank will have total assets of about \$10 billion and serve around 130,000 farmers in Arkansas, Illinois, Michigan, Minnesota, Missouri, North Dakota and Wisconsin, according to *Knight-Ridder Financial News* (KRF).

The two banks had been considering the merger for about a year, and it was approved by stockholders of both last March. The deal became official with approval of the Farm Credit Administration board. C.T. Frederickson, formerly chief executive of-

ficer of the St. Louis Bank, will be CEO of the new institution.

The merger could mean loss of some jobs in the system, since officials say Agribank may need about 30 percent fewer employees, according to KRF.

Wheat Acreage Reduction Debate in Full Gear

American Farm Bureau Federation has recommended that USDA hold the acreage reduction requirement for wheat to no more than 5 percent for the 1993 crop.

Among reasons a 5 percent reduction would be desirable, says AFBF, are the encouragement of sound conservation practices, such as field borders, wildlife strips and stream border strips. It also reduces incentives for producers who previously planted set-aside acres to perennials to convert them back to grain production.

AFBF said it could support a "zero percent" set-aside requirement under certain circumstances such as positive developments from USDA on export sales opportunities, but under no condition would a "no set-aside" decision be acceptable, according to Tim Price, director of the AFBF Commodity and Marketing Division.

A wheat acreage reduction in 1993 of less than 5 percent, even as low as zero, would be acceptable with expanded exports and if production estimates in June put the 1992 wheat output at less than 2.3 billion bushels.

Dairy

Larry Hamm

Milk production continues flat and market prices continue to climb. The recent USDA announcement on the deficit assessment is currently the only negative news for dairy markets.

Both March and first quarter (January-March) U.S. milk production is about equal to last year's levels. The dairy herd liquidation continues with 200,000 fewer dairy cows in the U.S. this past March compared to last year. Commercial sales are up slightly. Increased export sales have tightened the markets further. These conditions are forcing dairy product prices up.

As of May 1, cheese prices on the National Cheese Exchange have been rising continuously since early March. The current prices of \$1.305 and \$1.325 per pound for cheddar cheese in 500 pound barrels and 40 pound blocks, respectively, are equal to cheese prices in early November of 1991. Nearly all of the price drop of wholesale cheese prices from last year's highs have been made up. Farm raw milk prices will be on the rise soon.

The current (March M-W) of \$10.98 is the low for the year. The April M-W will increase modestly with larger increases due in the next few months. Farm blend prices are now at their seasonal lows. Dairy markets are turning around sooner and with more vigor than predicted.

Table Egg Market

Allan Rahn and Henry Larzelere

Table egg prices in April averaged about 10 cents a dozen below a year ago, while higher feed ingredient prices pushed egg production costs up around one-half cents per dozen.

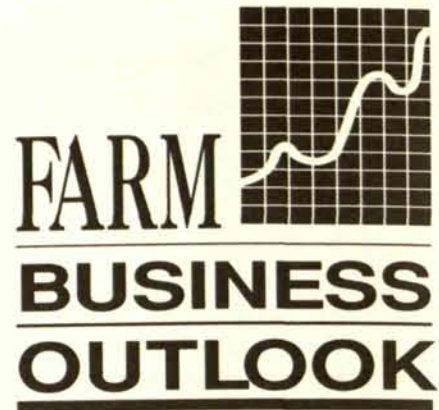
Egg production in March was 2 percent over last year and the April 1, 1992 table egg laying flock was 2.5 percent greater. Advanced chick hatch data imply that flock production capacity will not be reached until mid-year.

The egg-type chick hatch was down 1.4 percent in March and 4 percent lower over the entire first quarter, but had been higher

than the previous year in every month during 1991.

Egg movement was excellent during the Easter period, even though it was late in materializing. With the increased production rate, however, inventory positions will quickly be replenished and burdensome egg supply levels are likely to push egg prices lower in May.

Egg prices (New York, Grade A, large white, in cartons, to retailers) in May are expected to average in the upper 50 cent range, but should move up into the low 60's during June.



HEALTH AND SAFETY ON THE FARM

MICHIGAN STATE UNIVERSITY • AGRICULTURAL ENGINEERING - SAFETY PROGRAM • COOPERATIVE EXTENSION SERVICE
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SPRING, 1992

Rollover protective structures provide a safety zone for the operator

Is it your turn for a tractor rollover accident?
Each year more than 320 American farmers are killed in agricultural tractor rollover accidents. Of the 88 Michigan farmers killed in farm-related accidents from 1988 to 1991, 21 deaths were attributed to tractor rollovers (see chart on Agricultural-Related Deaths on this page).

These statistics show that the "it can't happen to me" syndrome doesn't hold water. Statistics from the past four years show that Michigan growers from all age groups were killed in rollover accidents. Twelve of these farmers were in the 20- to 40-year-old age group.

These deaths continue to occur despite the fact that rollover protective structures (ROPS) have been commercially available on most tractors manufactured during the past 16 years. But there are numerous tractors without a ROPS still in use. These tractors were either built before Oct. 25, 1976, the date that all tractors with more than 20 PTO horsepower were required for employees to be equipped with a ROPS, or have had the protective structures removed. These life saving structures are also available as retrofits for virtually every tractor manufactured. A ROPS retrofit

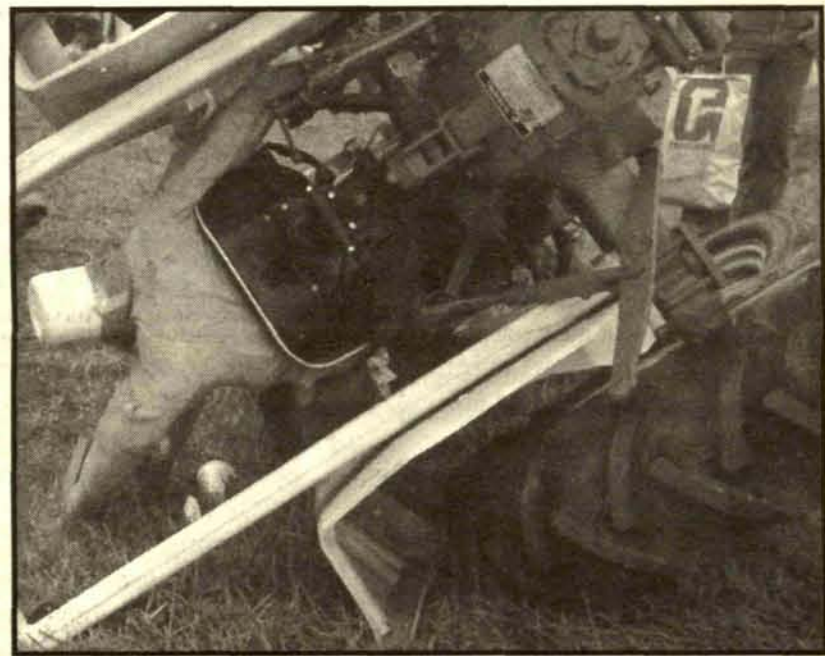
for a tractor in the 20 to 30 PTO horsepower range can cost as little as \$500, a small price to pay for something that could prevent a serious injury or death. With few exceptions (listed on back) all agricultural tractors built after Oct. 25, 1976 must have a rollover protective structure if it is to be driven by an employee other than an immediate family member.

Never try to construct your own ROPS - there are too many variables in mounting and material strength to design a rollover protection system that is guaranteed to protect you. An approved rollover protective structure is designed to crush down slightly to absorb some of the impact of a tractor rollover.

Having a cab on a tractor is not a guarantee that the operator will be protected in a rollover accident. Be sure to check for the required label that must be attached to the cab or frame of the tractor that ensures the structure is ROPS certified.

In addition to having a certified rollover protective structure, a seat belt is a necessity. Without a seat belt, the operator may be flung from the safety of the ROPS

(Cont. on page 2)



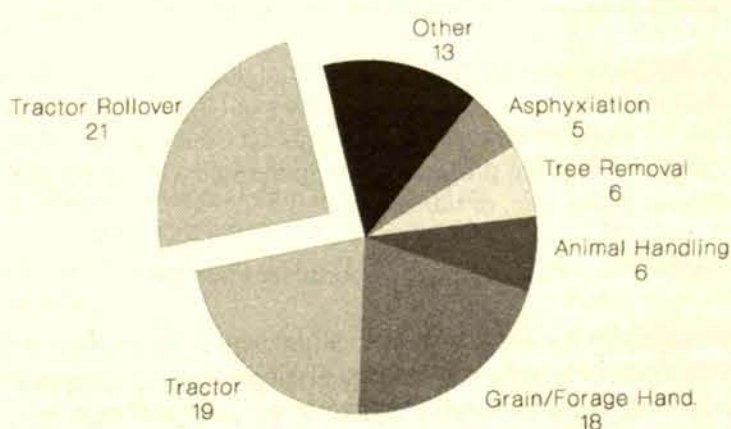
A ROPS provides the operator with a safety zone in a rollover.

Rollover accidents account for 55 percent of all tractor fatalities

Flipping a tractor over backward or to the side results in 55 percent of all agricultural tractor-related deaths in the United States.

The best preventive measure to reduce overturn deaths is to install a rollover

1988 - 1991* Michigan Agricultural Related Deaths



* 1990 & '91 estimated

Total deaths = 88

protective structure (ROPS) and wear a seat belt. However, not all tractors in use are equipped with a ROPS. With a few exceptions, a ROPS is required on all employee-operated tractors manufactured after October 25, 1976. Tractors manufactured before this date can be operated by employees without a ROPS. There are no ROPS requirements for immediate family members working on the farm, but a rollover protective structure can save lives. Whenever possible, everyone should use a ROPS equipped tractor. Tractors without ROPS can be retrofitted with a structure specifically designed for the individual tractor. The cost of a retrofit is about \$500 for a 20 to 30 horsepower farm tractor. A rollover protection source directory/price list is available from all Cooperative Extension Service offices.

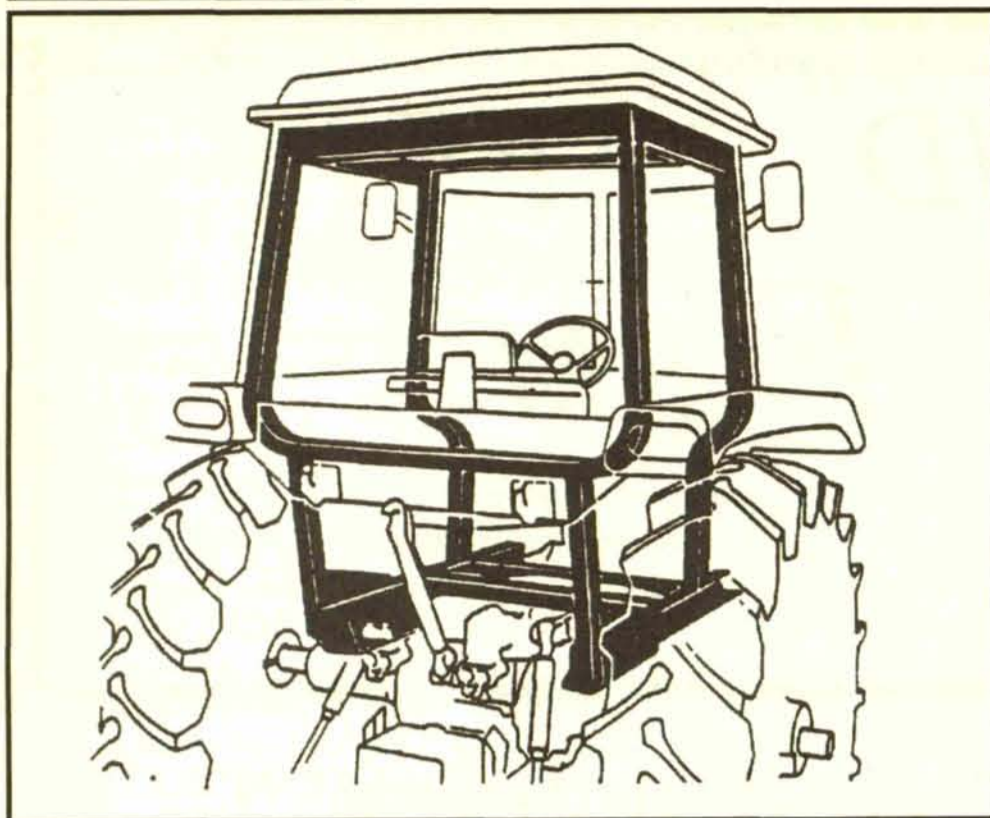
In the absence of ROPS and a seat belt, the next best preventive measure is to avoid tractor overturns by operating in a safe manner.

Preventing a tractor turnover to the rear

According to the National Safety Council, 85 percent of rear turnovers result in death when the tractor is not equipped with a rollover protective structure and a seat belt is not in use. A rear rollover generally happens too fast for the operator to react; it takes only 3/4 of a second to reach the point of no return.

Most rear rollovers are the result of changing the tractor's center of gravity. Normally, a tractor's center of gravity is located about two feet in front of and ten inches above the rear axle. Hitching above the drawbar or in a location not designated by the manufacturer increases the risk of a rear turnover.

(Cont. on page 4)



Older tractors can be retrofitted with ROPS cabs or frames, check with your dealer.



This is the only type of tractor a child should ride on.

Rollover structures

(Cont. from page 1)

into an area where the tractor may crush him or her.

Employee tractor safety

Employees must receive instructions whenever they receive their first farm tractor operation assignment and at least once a year thereafter. Include the following instructions :

- Fasten seat belt if the tractor has a rollover protective system.
- Avoid operating a tractor near ditches, embankments, and holes whenever possible.
- Reduce speed when turning, crossing slopes, and on rough, slick or muddy surfaces.
- Stay off slopes too steep for safe operation.
- Watch where the tractor is headed, especially at the ends of field rows, on roads and highways, and around trees or other obstructions.
- No riders, especially children.
- Smooth operation of the tractor means no jerky turns, starts, or stops.
- Hitch only to the drawbar or to hitch points recommended by tractor manufacturers.
- Needless deaths occur when tractors "flip" when trying to pull something

an agricultural tractor was not designed to pull, or when an implement or tow chain is hitched to the tractor in the wrong place.

- Always set brakes securely whenever the tractor is stopped. Use park lock if available.

Exemptions to the ROPS standard

Exemptions to the requirement for the mandatory ROPS are:

- Agricultural tractors with 20 horsepower or less (horsepower measured at the PTO).
- Using the tractor with mounted equipment that is incompatible with a ROPS cab or frame.
- Low-profile tractors used in orchards, vineyards, farm buildings, or greenhouses where the clearance of the frame or cab would interfere with normal operations.
- If used by employees in other locations, a low-profile tractor must have a ROPS, except to drive between the farmstead and the orchard or vineyard, and for activities directly incidental to work in exempt locations. A low-profile tractor has a chassis to ground clearance of 18" or less, with a hood height of 60" or less, and having a wide front-end.

Rollover protective structures do not prevent a turnover; they are designed to protect the operator in the event of a rollover provided the operator is wearing a seat belt.

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- Tractor Safety*, MF-984, April 1991, Cooperative Extension Service, Kansas State University, Manhattan, Kansas.
- Cover photo courtesy of the Ohio Bureau of Workers Compensation.

No extra riders - No exceptions

It's tough to tell that cute child begging for a ride on a tractor that "No, you can't come." Those "please, can I come too," cries may be coming from your grandson who lives in the city and is visiting his grandpa for the weekend -- sounds like a good chance to give the kid a real treat. Or, perhaps it's your son wanting to go with dad and it brings back fond memories of riding on your father's tractor -- it was OK back then so it should be fine to take him for a short ride.

Whatever rationale you use to justify breaking one of the most important safety rules in operating a tractor, remember, the risks are too great. Just because you enjoyed riding on a tractor as a child doesn't mean it was safe, it just means you were lucky. A 20-year national study of tractor fatalities involving an extra rider shows that 73 percent of those killed were children under 10. Numerous Michigan children have been killed because they fell off a tractor or wagon and were runover by the tires before a parent or grandparent had time to react. Even a tractor cab is no guarantee that the child is safe; bumps can jostle the child out an open door and into the path of those big rear tires.

Don't jeopardize a child's life and cause a life-long nightmare for you by giving into pleas for a ride. No matter how much it pains you to leave the crying child behind, the loving thing to do is to JUST SAY NO TO EXTRA RIDERS.

About this publication

This publication is part of the Michigan Agricultural Health Promotion Project (MIAHPP). MIAHPP is a joint project of Michigan State University's College of Agriculture and Natural Resources, the Cooperative Extension Service, the Department of Agricultural Engineering - Agricultural Safety, and the College of Human Medicine.

The Michigan Agricultural Health Promotion Project, primarily through the Center for Michigan Agricultural Safety and Health program (CMASH), links county Cooperative Extension Service staff and rural physicians with a health and safety network at Michigan State University.

CMASH is a joint effort of faculty members from the Cooperative Extension Service and the Colleges of Agriculture and Natural Resources, Human Medicine, Osteopathic Medicine, Nursing, Veterinary Medicine, the Center for Environmental Toxicology and the Pesticide Research Center.

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Checklist for safe anhydrous ammonia handling

Don't let this spring's wet, cold weather rush you into an accident by trying to make up for lost time when preparing to plant. Spending a few minutes to inspect anhydrous ammonia equipment before taking it from the dealer may help reduce problems or accidents that can cause delays or injuries to the operator. Follow this checklist to minimize the risks associated with anhydrous applications.

Supply/nurse tank checklist

Are the fittings and valves clean and free from rust and wear?

Is the kingpin in good condition and well lubricated?

Is the high-pressure hose secure, with no cracks or signs of wear? *Replace the hose if you can see the braided layer.*

Is the hose free of cuts, soft spots, blistering, kinking, flattening, or indications that it may have been stretched? Is there slippage at any coupling connector? *Check for leaks, kinks, and bulges, especially near the couplings.*

Is the tank free of rust? Is the paint in good condition?

Does the tank have a slow-moving vehicle (SMV) emblem mounted on the rear of the tank that is in good condition?

Are the tires in good condition and properly inflated?

- Are both ends of the hose secured to prevent damage to the hose and connections during transport?
- Is the emergency water supply full? Is the grabhose clean and free of any slimy internal buildup that would impede or contaminate water flow?

If the answer to any of these questions is no, **don't take the tank.** Ask the dealer to fix it or request another tank. Although the dealer is responsible for maintaining equipment in proper working condition, you are the one who may be injured in an accident. **Take the time to inspect the equipment to reduce the risk of a serious accident. Never take a questionable tank home and try to repair it yourself.**

Transport checklist

Before you tow the tank home, make sure:

- Towing connections are in good condition, correctly adjusted and firmly secured.
- Hitches are secure and equipped with locking pins.
- Safety chains are securely connected.

Application equipment checklist

- Are applicator knives in good condition and not plugged with soil or other material?

- Is the shut-off rope the right length and in good condition?
- Are you using locking hitch pins?
- Is the nurse tank secured with a safety chain?
- Is all low-pressure tubing securely clamped and free of pinches, nicks, weak spots and leaks? *Folding and unfolding the applicator wings can pinch hoses so always inspect them before using. Are hoses clear and flexible? Hoses that are weathered, cracked, discolored or brittle need to be replaced. Check all hoses, connections and tires daily.*
- Is the regulator working properly?
- Is the applicator tool bar equipped with a breakaway coupler that is in good physical condition?
- Is the emergency five-gallon water tank filled with fresh water? *Always empty and refill the water tank at least once a day to ensure an adequate supply of fresh water.*
- Do you have a second five-gallon water tank filled with fresh water on the tractor? *A ruptured hose and the failure of a safeguard may prevent you from reaching the water tank on the nurse tank. A five-gallon water tank on the tractor may be your only available source of water.*
- Do you have a small squeeze bottle of fresh water in your pocket that will be readily accessible if ammonia gets in your eyes?

Preventing anhydrous ammonia burns

Anhydrous ammonia is one of the most efficient sources of nitrogen fertilizer and is popular among Michigan growers because of its relatively low price. With proper precautions, it is safe to handle, but the number of accidents related to anhydrous ammonia in the United States has increased in recent years. These increases are due, in part, to older transport and application equipment becoming timeworn.

Safety devices built into anhydrous ammonia application equipment are designed to protect against a major ammonia release, but equipment failures have been reported. Operators and anyone in the area are at risk for severe burns.

The biggest risk associated with anhydrous ammonia handling is an accidental release of NH₃. Inside the tank, ammonia under pressure remains in a liquid form that maintains a temperature of -28 degrees F. Once released, whether into the soil or the air, it immediately becomes a vapor that seeks out the most available source of moisture. Unfortunately, this moisture source may be the body of the operator, which is composed of 90 percent water. When a human body is exposed to anhydrous ammonia the chemical "freeze burns" its way into the skin, eyes or lungs.

Unlike wounds from a fire which tend to sear the flesh, ammonia consumes six times its own weight in moisture from any body tissue available. The only treatment is water, lots of water, and then more water. Flushing the burn with water gives the ammonia an easier source of moisture to seek out, pulling it away from human tissue. The best advice to ensure the safety of the operator is to make sure the equipment is in sound operating condition and, in the event of an accident, take every precaution to protect against a serious injury by wearing basic personal protective equipment (PPE).

Operator protection

Most injuries occur when anhydrous ammonia is transferred from one tank to another. It is during this task that operators frequently forget to take the proper

safeguards to reduce the risk of injuries from ruptured hoses, valve or coupler failures, or any host of problems that can happen in a split second. Without proper protection, the operator is defenseless. Skin burns are the most common injuries reported from accidental exposure to anhydrous ammonia, but eye injuries are the most serious. To protect the eyes, wear goggles specifically designed for handling anhydrous ammonia. There are several brands available on the market that offer the protection needed in the event of an accident. Don't rely on eye- or sunglasses to protect your eyes; the open area between the eye and the frames allow anhydrous ammonia to come in contact with the skin and eye tissue. Recom-



Goggles and a respirator approved for anhydrous ammonia handling will protect your eyes and respiratory system from an accidental release of ammonia.

mended goggles are non-vented to keep NH₃ vapors from the eyes. These goggles fit tight but allow for wearing of eyeglasses.

Thermal lined rubber gloves will protect your hands from "freeze burns" when working with anhydrous ammonia. Turn the cuffs of the gloves out so liquid ammonia doesn't run down your sleeve. Also, wear a heavy, long-sleeved workshirt to keep the chemical from reaching the skin. Long pants with the cuffs outside the boots are necessary for protection of the lower body.

University research shows that in 80 percent of the accidents involving anhydrous ammonia, 80 percent of the workers had access to gloves, but only 29 percent were wearing them. Likewise, 60 percent had goggles, but only 22 percent were wearing them.

Water, lots of water, and more water

Two or more sources of water are recommended in case of an accident. State law requires that all anhydrous transport and application equipment carry a 5-gallon container for fresh water. This water must be changed daily because anhydrous fumes that escape the nurse tank will contaminate this water supply.

A small squeeze bottle filled with clear water can be kept in your shirt pocket. This bottle will readily be available for flushing anhydrous ammonia from your eyes or for rinsing small exposures to the skin.

A third water container, carried on the tractor, is a readily accessible source of water for any accident. It becomes extremely important if an ammonia leak prevents the operator from getting to the water tank on the nurse tank.

If ammonia gets on your skin or in your eyes, flush the areas with clear water for at least 15 minutes to rinse away all ammonia. If water is not available, cool coffee, milk, cola, juice or other nontoxic liquid may provide temporarily help. An ammonia blast to the face could freeze eye lids closed. Never force eye lids open with your fingers; instead, apply water to the lids and continue flushing until they open. When ammonia is sprayed on your clothes, flush the clothing with water for a few moments until it is thawed, then remove the clothing and continue to rinse the skin for at least 15 minutes.

Always seek medical attention after an exposure to anhydrous ammonia. Proper medical treatment will reduce the severity of the injury and speed the recovery process. Never apply salves or ointment to ammonia burns. Your physician will advise you on the proper treatment of anhydrous ammonia burns.

Safe tractor operation

(Cont. from Page 1)

Excessive throttle use or applying too much power to a restrained rear axle can cause the front-end of the tractor to lift off the ground. As the front end lifts it gains momentum and the tractor flips over. Without a ROPS and a seat belt the operator will likely be crushed.

Tractors are also subject to rear turnover when driven up a steep incline. Backing the tractor up the hill keeps the

weight on the front wheels, preventing the tractor from flipping over.

If a load must be pulled up a hill, keep the operation of the clutch and throttle smooth. Do not stop or shift gears while driving up a hill.

Back out of ditches, holes or places where the tractor is mired or wedged. Extra time may be spent unhitching and moving machinery out of the way, but it will be a fraction of the time that may be spent healing from injuries suffered from

a turnover, if you survive. If backing out a tractor is not possible, use another tractor to pull the stuck tractor free.

Always make sure the chain is hitched to the drawbar of the pulling tractor. Never place boards in front of the tractor wheels or attempt to move the tractor forward by its own power.

Preventing a tractor turnover to the side

Operating on unlevel ground can change the tractor's center of gravity, making it easier to turn over. Mounted equipment, especially if the equipment is not mounted as directed by the tractor manufacturer, will also shift the center of gravity.

Always keep front-end loader equipment in the lowest position possible when in transport. A front-end loader in the raised position alters the tractor's center of gravity, reducing its stability.

Turning too quickly or too sharply may increase the centrifugal force against the tractor and cause it to overturn sideways. Always slow down when turning.

Tractor speeds should match surface conditions. Rough or uneven surfaces require reduced speeds. Be alert for

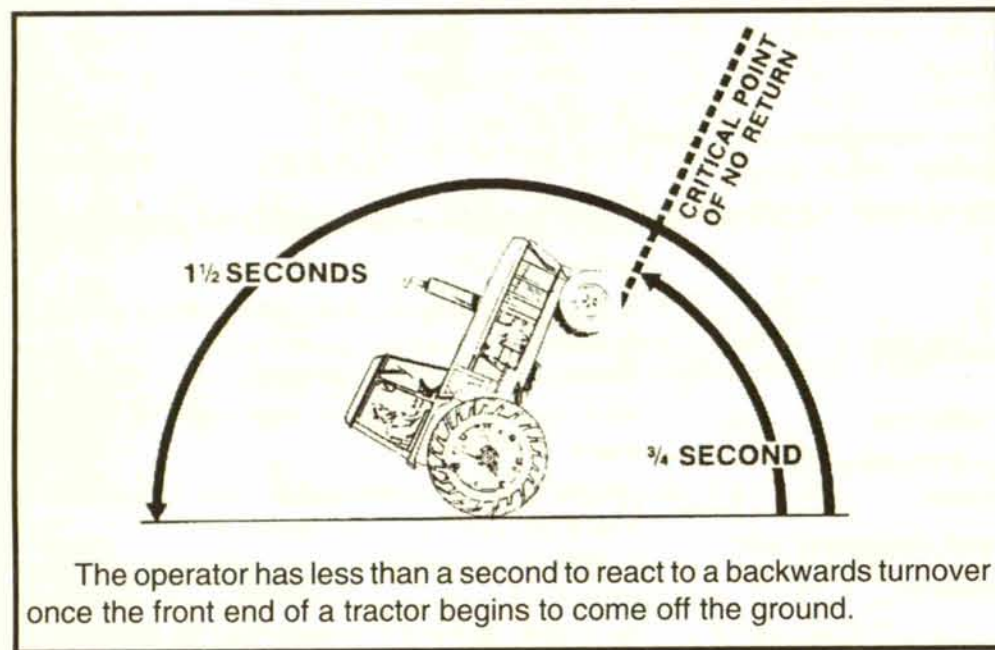
rocks, holes, embankments or other hazards that can change the tractor's center of gravity.

When working on a sloped surface, use a tractor with a wide front-end and space the rear wheels as far apart as possible. Cross slopes slowly and keep side-mounted equipment on the uphill side of the tractor.

Lock brake pedals together when driving at transport speeds to ensure even braking. Shift to a lower gear before traveling downhill to let the engine and transmission reduce speeds. Be sure that any loads are not going to try and outrun the tractor on the way down a hill. To avoid having a load outrun the tractor, never pull a load heavier than the tractor can safely handle under any conditions that may be encountered. Remember, two trips may take longer, but it is better than never completing the job.

Use rear-view mirrors if you need to keep an eye on rear attachments or loads. Operators twisting to look over their shoulder can cause the tractor to swerve abruptly.

Be sure the tractor and implements have adequate lighting and are equipped with a bright slow-moving vehicle (SMV) emblem whenever the tractor is driven on a public road. Vehicle accidents on roads have resulted in tractor overturns.



Is your tractor safe?

1. Does the tractor have a rollover protective structure (ROPS), either a rollover structure on an open tractor or a cab with a built-in ROPS and a seatbelt?

Other than safe-operating procedures, having a ROPS and wearing a seatbelt is the single most important thing that you can do to ensure operator safety.

2. Is the PTO shielded? Proper shielding will cover the tractor PTO shaft and all U-joints and shafts.

Most tractors now have a sturdy PTO master shield, but a shield on the PTO shaft won't do you much good if joints and implement shafts from the tractor to the machine are exposed.

3. Does the tractor have front-end and rear-wheel weights that can be mounted when needed?

The center of gravity on a tractor with a front-end loader moves forward and upward, causing the tractor to be unstable and prone to a sideways overturn. Rear-wheel weights or ballast adds stability to tractors with a front-end loader. Always transport with the front-end loader in the lowest possible position.

Front-end weights reduce the risk of a backward flip-over by counter-balancing heavy rear mounted loads or when towing loads in hilly areas. Once the front of a tractor leaves the ground, an operator has less than a second to prevent a backwards flip-over. A flip-over to the rear generally kills the operator on a tractor without a ROPS. A minimum of 25 percent of the tractor's total weight should be on the front axle, even more if the tractor is operated on hilly ground.

4. Are tow chains always hitched to the drawbar? Are safety chains hooked securely with just enough slack for proper turning?

Hitching chains to the axle or seat bracket--anywhere besides the drawbar--puts you at risk for a rear turnover. Numerous tractors have flipped over, frequently killing the operator, because chains

were hitched too high on the tractor when trying to pull a stuck tractor, logs or stumps. Always hook to the drawbar and use a clevis when hitching a chain.

Hitch safety chains securely, leaving just enough slack so turning is not affected, but not loose enough so that they can catch on an obstruction. Tractors have occasionally flipped over because a safety chain has caught on a rock or stump.

5. Are the steps and platform clean and free of loose tools and other debris?

Snow, ice or mud on steps can cause you to slip and fall. A fall can result in a serious injury.

Chains, tools or other loose objects on the platform can slide around and obstruct access to the clutch, brakes or other controls. Stepping on obstacles can cause a slip when dismounting.

6. Is the tractor equipped with an ABC rated fire extinguisher, a first-aid kit, dust mask, and ear plugs? When applying anhydrous ammonia (NH₃), is there fresh water and approved rubber gloves, an NH₃ respirator and goggles readily accessible?

When you are out in the field or on the road you're generally a long ways from emergency help. A fire extinguisher and a first-aid kit can keep a small problem from turning into a disaster.

Inhaling dust, chaff or other small particles can impair respiratory functions. Dust masks will minimize exposures. Ear plugs will protect hearing functions on a noisy tractor. Research shows that by age 60, about one-third of all farmers have suffered a hearing loss that hinders their ability to carry on a normal conversation.

Immediate access to fresh water, an anhydrous ammonia respirator, rubber gloves and goggles can minimize operator injury in the event of an accidental release of anhydrous ammonia.

7. Are the tractor wheels set as wide as possible for the job being performed?

The broader the wheel base, the less likely the tractor is to turn over. Even with

wheels at the widest possible setting there are some tasks that tractors are not meant for such as herding cattle, joyriding or driving to town. Any use of a tractor for something other than its intended use is taking an extra risk.

8. Does the load match the tractor?

It's easy to lose control of a tractor when it's going downhill with a heavy load. This has caused many fatalities. Never haul a load that is heavier than the tractor if you expect to go up or down a hill. On level ground, the load should be no more than twice as heavy as the tractor. Brakes on towed trailers reduces the risk of losing control.

9. Are braking and steering mechanisms, gauges and lights working properly?

Faulty steering and braking can cause accidents, especially during road transport. The tractor should stop in a straight line when both brake brakes are locked together.

Lights must be in good working condition to be able to see and avoid obstacles at night. Faulty gauges can result in a damaged engine.

10. Do you check all fluid levels, fan belts, tire pressures and hydraulic lines for fluid leaks before every use?

Underinflated tires develop internal damage. Overinflated tires are more susceptible to mechanical damage from rocks, stumps, etc., and make the front wheels bounce on rough ground which can cause you to lose steering control.

Hydraulic lines should be checked before each use by passing a piece of cardboard or paper along them. Never use your hand to check for hydraulic leaks, high-pressure fluid can penetrate your skin and cause a permanent injury even though it may not show or cause pain. Seek medical attention if you suspect that hydraulic fluid has penetrated you skin. Always release all pressure from hydraulic systems before loosening any connections or fittings.

11. Do you have a slow-moving vehicle (SMV) emblem that is in good condition on the rear of the tractor and on all implements? Are lights on the tractor and implements equipped with approved reflectors and lights?

Car and truck drivers must be able to see your tractor and equipment from a long distance to allow them time to slow down and pass. A SMV emblem must be clean and shiny.

12. Do you review safety procedures in the operator's manual regularly?

The operator's guide is the best safety guide you have; use it often. Also, make sure that anyone who operates the equipment is familiar with the safe operation of the equipment.

Score Yourself

How many questions were you able to answer with a "Yes"?

12 -- Excellent, you're the type of farmer who will likely not be forced off the farm due to a tractor accident. Make plans to dance at your grandchild's wedding.

9 - 11 -- Good, you're probably better than a lot of farmers. Take care of the few loose ends and you'll be ready for anything.

5 - 8 -- Watch it, you're on thin ice. Don't wait to become a statistic.

4 or less -- Yikes, you're an accident waiting to happen. Fortunately you're still around to read this. Take heed, you could become a "stiffistic." Reread these questions and take corrective measures.

(Editor's Note: No matter how well you score, if you answered no to question #1 you are at risk for a serious injury or death (see accompanying stories on tractor rollovers and ROPS).

U.S. Grain Group Sees "Paperwork Nightmare" in Proposed IRS Rule

A leading U.S. grain industry group is urging the Internal Revenue Service to drop a proposed tax rule they say will create a "paperwork nightmare" for U.S. grain and feed processing firms.

Under the proposed rule, farmers would have to certify that they have produced the goods they are selling. Firms would have to collect those "sworn certifications" from individual producers at least once a year and keep the records for four years.

National Grain and Feed Association calls the proposal "impractical, costly and confusing." Truck drivers who deliver grain to elevators often are not the actual producers and would "lack the authority to sign such certifications," the group said.

At the heart of the issue is an IRS regulation that requires firms to complete tax form 1099B when they purchase goods from unincorporated sellers such as farmers, who operate mainly as sole proprietorships or partnerships.

The IRS had previously exempted certain agribusiness firms from filling out tax form 1099B on purchases from unincorporated farmer sellers. However, it now proposes that those firms instead be required to collect the sworn certifications.

In its statement, the NGFA said it would be "impossible to collect the certifications from truck drivers" and others who normally deliver the grain to elevators because producers would be required personally to sign the certifications.

Collecting the certifications in advance also would be impractical because producers normally sell their crops to any of a number of grain or processing firms based on the prices being offered at the time, the NGFA said.

Even in cases where the producer personally delivers the grains, the certifications would, "at a minimum, create further unloading and processing delays at grain firms," the NGFA concluded.

New Product Profile



White 6000 Series Planters

The 6000-Series planters combine the proven air-metering system with flexibility in frame configurations and attachments to fit most planting requirements, including soybeans. Models feature air-metering, walking beam gauge wheels, state-of-the-art seed trench equipment and other features.

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Walking beam gauge wheels control weed depth, even in rough ground, with depth adjustments possible in 1/8" increments. Population control is easier with a centrally located transmission. All sprockets are in place and need only be moved on the shaft to change populations. A variety of ground preparation and closing tools are available to customize the planter to specific operations. For more product information, call 1-800-767-3221.

Feds Lose Wetlands Case In Chicago...

The U.S. District Court of Appeals in Chicago ruled in favor of a large private home builder who took the Environmental Protection Agency to court, over the EPA's decision to fine the builder for filling in a small depression in a farm field.

The court said some wetlands fall outside federal jurisdiction, if they are "isolated" or not directly associated with a river or lake. It also struck down a contention that the Commerce Clause of the U.S. Constitution giving the federal government the right to regulate interstate trade can be construed as the right to regulate "isolated" wetlands, simply because they may be used by migratory birds as a rest stop on their way to winter habitat.

The judge characterized as "far fetched" the idea that the potential presence of migrating birds affects commerce. It's reported that Justice Department attorneys who represented the EPA in the case are still reviewing the decision.

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Sincerely,

Jim Schmidt
James L. Schmidt,
Illinois Agricultural Assoc.
Director
IFB Travel Program

Doug Fleming
Douglas E. Fleming,
Michigan Farm Bureau
Manager
Field Operations Division

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8 EPA Urged to Include Ethanol in Clean Air Act Regulation's Gasoline Program

The Environmental Protection Agency (EPA) -- not the Clean Air Act -- threatens to eliminate ethanol from inclusion in the reformulated gasoline program, John White, president of the Illinois Farm Bureau and a member of the AFBF board, told a House Agriculture subcommittee.

"We believe Congress and President Bush intended for ethanol to be included in the clear air regulations. From what we have observed at EPA, it appears those intentions are not being carried out."

Provisions of the Clear Air Act adopted in 1990 require certain metropolitan areas throughout the nation to provide oxygenated fuels and reformulated gasoline within stated time periods. EPA has been directed to develop regulations to implement these provisions, and has asked for public comments on its proposed regulations.

White said EPA has narrowly interpreted the Clean Air Act to severely limit the use of ethanol in reformulated gasolines.

EPA's analysis does not give ethanol credit for all of its environmental benefits. "EPA is severely inhibiting future expansion in the ethanol industry," White testified.

He encouraged Congress to send a clear message to EPA that the final rules be written so that ethanol plays a prominent role in the reformulated fuels program.

"This issue affects American jobs, farm income and America's energy independence," White said. "When the Clean Air Act was passed, officials of the National Corn Growers and Renewable Fuels Association estimated demand for ethanol would increase in the near term by 500 to 600 million gallons. However, if ethanol is left out of EPA's pending regulations, potential demand could be cut to only 250 million to 300 million gallons."

The economic consequences of excluding ethanol from the reformulated gasoline program are already being felt, White said. Close to 1,500 potential jobs in Illinois and

Iowa have been put on hold or perhaps lost indefinitely due to the cancellation of expansion plans by leading ethanol producers, he said.

Eight percent of all gasoline sold is now blended with ethanol, he informed the subcommittee. "USDA has estimated that demand for corn to produce ethanol has added roughly 20 cents a bushel to the price of my corn. In a town where 'a billion here, and a billion there' is the rule, 20 cents may not seem like much -- but to American farmers, it is.

"AFBF strongly urges that the EPA makes certain that ethanol is part of the new reformulated gasoline program regulations," White said. "We believe that it is the role President Bush and Congress intended for ethanol."

The comment period will end on June 18. After the comments are analyzed, EPA will review the need to modify the Clean Air Act regulations.

Caution Around Manure Storage Facilities Wise

The Michigan Department of Agriculture reminds you to use specialized personal protective equipment when working around covered manure storage pits or tanks, so that you won't become a victim in one of the 25 farm-related deaths occurring in Michigan this year.

When agitated, animal waste gives off methane, hydrogen sulfide, ammonia and carbon dioxide. Hydrogen sulfide is toxic, heavier than air and will displace oxygen just above the surface of the liquid. As few as two inhalations of a high concentration of hydrogen sulfide can result in immediate loss of consciousness.

Farmers are advised to use special equipment consisting of a self-breathing apparatus (SCBA), a lifeline, a lift harness and a tripod if entering a tank. The equipment should be used regardless of the temperature or humidity, or whether the tanks are full or empty.

The Michigan Cooperative Extension Service lists four safety measures to take when working around manure pits. These precautions include: test the air for hydrogen sulfide with dependable and reliable equipment; have constant and abundant ventilation of fresh air; use an approved harness or lifeline on the person entering the tank with at least two people outside the tank capable of pulling the person out if needed; have a pulley and tripod ready to remove anyone that has passed out near the tank opening.

Floriculture Sales Increase

Michigan placed fifth nationally in sales of floriculture products in 1991, according to the Federal/State Michigan Agricultural Statistics Service. Only California, Florida, New York, and Texas reported larger sales than Michigan.

Reports from Michigan's 470 commercial growers indicated that the wholesale value of all floriculture crops was nearly \$144 million in 1991, up 5 percent from last year's sales. Bedding/garden plants were the leaders in the Michigan floriculture industry with \$78 million in sales, second in the nation. Flowering potted plants were second with \$20 million, cut flowers third with \$12 million, followed by foliage with \$4 million in sales.

Michigan leads the nation in potted geraniums grown from seed. The wholesale value of the 13 million pots produced was \$9.1 million. Michigan, second in the nation, produced 1.7 million hanging baskets with flowers. The wholesale value of that product was \$9.0 million.

Michigan also ranks second in the production of cut gladioli, at 40 million spikes, valued at \$5.8 million; 1.1 million potted Easter lilies, valued at \$3.5 million; and 275,000 bedding geranium flats worth \$2.2 million. Michigan had 26.1 million square feet of total greenhouse cover in 1991, including both rigid and film plastic greenhouses. Only California and Florida have more covered growing area.

Nationally, growers who reported a gross value of sales of \$100,000 or more for the 28 crops surveyed in the 28 states had \$2.57 billion, of sales. That was up 2 percent from 1990's equivalent data. The value of cut flowers decreased 4 percent to \$449 million. Potted flowering plants, valued at \$671 million, increased 6 percent. Foliage plants decreased 6 percent to \$446 million. Bedding plants, valued at \$897 million, increased 8 percent. The value of cut cultivated greens, at \$110 million, increased 3 percent from 1990. A commercial grower is defined as someone who has \$10,000 or more in gross sales.

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	2.5 mg	100's	41.25		Ortho-Novum Tabs	1-35	21 or 28	19.50	8.95
	5 mg	100's	41.75			1-50	21 or 28	19.50	8.95
	7.5 mg	100's	63.75		Persantine Tabs	25 mg	100's	25.95	5.95
	10 mg	100's	65.75			50 mg	100's	39.25	7.95
E.E.S. Tabs	400 mg	100's	19.95	15.25		75 mg	100's	51.95	9.95
Entex LA Tabs		100's	49.95	12.95	Premarin Tabs	0.3 mg	100's	20.25	10.95
Eryc Caps	250 mg	100's	28.50	16.95		0.625mg	100's	26.95	13.95
Flexeril Tabs	10 mg	100's	74.25	50.95		1.25 mg	100's	35.75	15.95
Inderal Tabs	10 mg	100's	20.75	5.95		2.5 mg	100's	61.95	29.95
	20 mg	100's	28.25	6.95	Proventil Tabs	2 mg	100's	30.75	10.95
	40 mg	100's	35.95	7.95		4 mg	100's	43.25	15.95
	60 mg	100's	47.75	9.95	Provera Tabs	10 mg	100's	46.75	16.95
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	120 mg	100's	48.75	15.95		0.05 mg	100's	14.50	7.95
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	0.25mg	100's	9.75	2.95		0.15 mg	100's	18.95	4.95
Lasix Tabs	20 mg	100's	13.75	5.95		0.2 mg	100's	21.75	5.50
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	80 mg	100's	28.50	11.95	Tegretol Tabs	200 mg	100's	29.95	13.95
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Forest Stewardship Incentive Program - Can it Work For You?

The 1990 Food, Agriculture, Conservation and Trade Act authorizes the cooperative Stewardship Incentive Program (SIP) to encourage management and development of private forests lands through cost sharing of approved practices, according to a recently released fact sheet on the relatively new program.

Funding of this program - up to \$100 million annually through 1995 - is authorized through the Forest Stewardship Act. For fiscal 1991, \$19.9 million was appropriated, with another \$19.7 million allocated for fiscal 1992.

Each state forester, in consultation with the State Forest Stewardship Committee, will determine cost-share levels, practice priorities, and minimum acreage requirements. ASCS will provide administrative assistance by accepting applications and arranging for disbursed payments.

Qualifications

Qualifying private forest land includes rural lands with existing tree cover and other woody vegetation or land suitable for grow-

ing such vegetation and owned by a private individual, group, association, corporation, indian tribe, or other legal private entity.

Eligible landowners must have an approved Forest Stewardship Plan and own 1,000 acres or less of qualifying land. Authorizations must be obtained for exceptions of up to 5,000 acres. Existing management plans may be modified to meet Forest Stewardship Plan guidelines.

Payments cannot exceed \$10,000 per landowner per fiscal year. Landowners must maintain and protect SIP-funded practices for a minimum of 10 years.

SIP Approved Practices

Nine SIP practices have been approved for cost-share assistance by the USDA Forest Service. Each practice allows for specific technical practices to be considered for state programs including:

1. Management Plan Development
Document private landowner objectives and management decisions. Recommend resource management practices to provide

an action-oriented Forest Stewardship Plan.

2. Reforestation and Afforestation
Establish or re-establish diverse stands of forest trees through natural regeneration, planting, or direct seeding for conservation purposes and sustainable timber production.

3. Forest and Agroforest Improvement
Improve forest stand productivity, stand vigor, forest health, and the value and quality of wood products.

4. Windbreak and Hedgerow Establishment, Maintenance, and Renovation
Establish, maintain, and renovate windbreaks and hedgerows to conserve energy; protect farmsteads, livestock, and crops; and reduce soil erosion.

5. Soil and Water Protection
Maintain or improve water quality and soil productivity on forest land and along waterways.

6. Riparian and Wetland Protection and Improvement

Protect, restore, and improve wetlands and riparian areas to maintain water quality and enhance habitat.

7. Fisheries Habitat Enhancement
Protect and enhance habitat for native fisheries including resident and anadromous species.

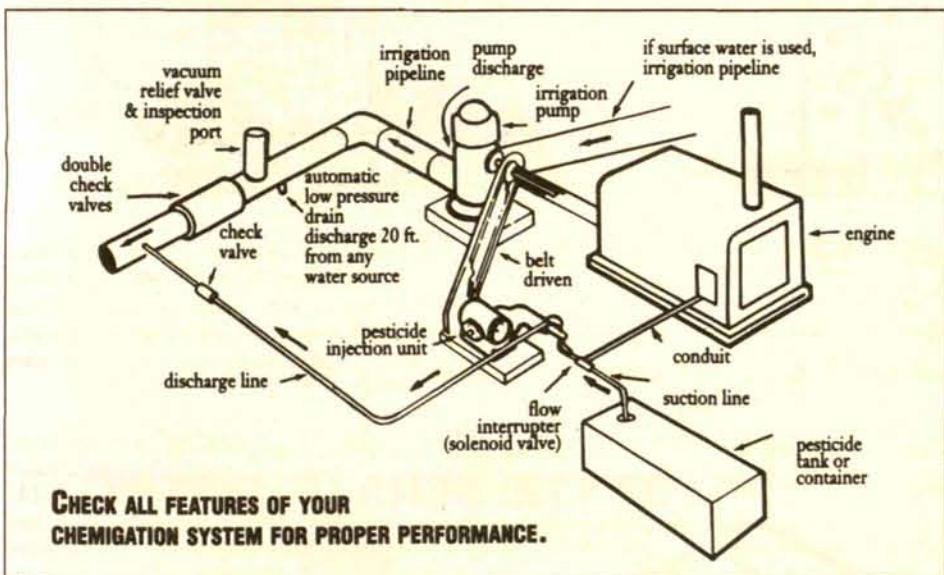
8. Wildlife Habitat Enhancement
Establish and enhance permanent habitat for game and nongame wildlife species.

9. Forest Recreation Enhancements
Establish and enhance outdoor recreation activities.

For more program information, contact your county ASCS office, Conservation office, county Extension Service office, or your county Soil Conservation Service office, or the State Forester, Fred Wuerthele at (517) 373-1277 in Lansing or (616) 685-6851 in Plainwell. Program sign-up is scheduled to begin May 18.

Chemigation Safety

USEFUL TIPS FOR GROWERS



CHECK ALL FEATURES OF YOUR CHEMIGATION SYSTEM FOR PROPER PERFORMANCE.

The application of ag chemicals and fertilizers through irrigation systems is becoming more popular every year, as farmers, greenhouse managers, nurserymen, golf course operators, and sod growers discover the convenience of chemigation.

But convenience can lead to neglect, and, unless proper precautions are taken, contamination of water resources can result. You can protect water resources from ag chemical contamination when using chemigation by ensuring that your system is properly designed.

Proper (and legal) use of chemigation requires that certain safety devices be installed on your irrigation system to prevent back-siphoning or direct injection of ag chemicals into the water sources.

PROPER SYSTEM COMPONENTS

- 1 Double-Check Valves:** located between the irrigation pump discharge and the point where you'll inject the ag chemical into the irrigation pipeline.
- 2 Inspection Port:** located between the irrigation pump discharge and the mainline check valves.
- 3 Vacuum Relief Valve:** located on the top of the horizontal irrigation pipeline between the discharge side of

the irrigation pump and the inlet side of the double check valves.

- 4 Automatic Low Pressure Drain:** located on the bottom of the horizontal irrigation pipeline between the discharge side of the irrigation pump and the inlet side of the double check valves. It's important that the drain discharges at least 20 feet from any water supply so it won't re-enter the water supply.
- 5 Flow Interruption Device:** located in the ag chemical supply line between the chemical injection unit and the container or tank you supply the ag chemical from. A normally closed solenoid-operated valve or other similar device is a good way to positively prevent flow of ag chemical or water in either direction in case of chemical injection system failure or during shutdown.
- 6 Check Valve:** located on the ag chemical injection line between the point of chemical injection into the irrigation system and the injection unit to prevent the overflow of the ag chemical supply tank or container.
- 7 Functional Systems Interlock:** capable of causing the shutdown of the ag chemical injection unit if interruption of the irrigation water flow occurs.

A Chemical Mixing Checklist

USEFUL TIPS FOR GROWERS



The growing season is one of the busiest times of the year. With all the pressures of the job, it's easy to overlook safety precautions when handling ag chemicals. The following checklist is a reminder that we can never be too busy for safety:

- Read the label carefully and take notice of personal safety and environmental precautions.
- Wear appropriate personal safety equipment when handling ag chemicals.
- When mixing and loading chemicals in the field, prevent spills that might contaminate water supplies.
- Prevent spray tank overflow by never leaving the filling station unattended.
- While filling sprayers, avoid back-siphoning by always keeping the discharge end of fill hoses above the tank's water level.

Take time to carefully read the product label and always wear appropriate protective gear whenever mixing or handling ag chemicals.

- Be certain pumping equipment has anti-backflow devices and check valves.
- Never exceed labeled chemical rates, mix carefully, and calibrate your sprayer before applying ag chemicals.
- Prevent leftover chemicals by mixing only needed quantities.
- Never rinse equipment near wellheads, ditches, streams or other water sources. If needed, install a longer rinse water hose to move the cleaning operation to a safe distance from the well.
- Before disposing of chemical containers, triple rinse or pressure rinse them, and pour the liquid into the spray tank.
- Dispose of equipment and container rinse water by spraying it out over the soil following label instructions.

10 Political Winds of Change Blowing Across Michigan

Whether it's redistricting, the bad check scandal, or a "throw the incumbent out" mentality, Michigan's political future is up for grabs with high stakes and surprises developing daily in both political parties.

In all, the reapportionment process has eliminated two U.S. House districts and changed the boundaries of all the remaining 16 districts. On the state level, all of the Michigan House of Representative seats have been either renumbered or the boundaries rearranged. The Michigan Senate has seen all but a handful of district boundaries changed.

Who's Out

From Washington, D.C., U.S. Rep. Bob Traxler's (D-Bay City) announced retirement in late April was one of many surprise announcements. U.S. Rep. Bob Davis (R-Gaylord) announced his retirement from the Washington scene as well, an apparent victim of the House banking scandal.

Rep. Traxler served on the Appropriations Committee and was a 10-term representative from the 8th district. Rep. Davis served on the Armed Services; Merchant Marine & Fisheries (ranking minority member) committees and was a 7-term representative from the 11th district.

Other retirements thus far include:

U.S. Rep. Carl Pursell (R-Plymouth), an 8-term member of the U.S. House, announced his decision to retire based on redistricting. Rep. Pursell served on the Appropriations Committee.

Seven-term U.S. Rep. Howard Wolpe (D-Lansing) announced his intentions to retire based on redistricting that made re-election unfeasible. Wolpe served on the Foreign Affairs and Science, Space and Technology committees, and chaired the Subcommittee on Investigations and Oversight.

U.S. Rep. Dennis Hertel (D-Detroit) has also announced his retirement plans rather

than face 5-term incumbent U.S. Rep. Sander Levin (D-Southfield). U.S. Rep. William Broomfield (R-Birmingham) announced his retirement after serving 18 terms in the House. Congressman Broomfield was ranking Minority Member on the Foreign Affairs Committee and also served on the Small Business Committee.

From within Michigan, 12-term state representative Mickey Knight (R-Muskegon) has announced that he won't seek re-election as have Reps. Claude Trim (R-Waterford), Thomas Power (R-Traverse City), Perry Bullard (D-Ann Arbor), Roland Niederstadt (D-Saginaw), John Bennett (D-Redford), Stephen Dresch (R-Hancock), Thomas Hickner (D-Bay City), Keith Muxlow (R-Brown City), Gordon Sparks (R-Troy), and Margaret O'Connor (R-Ann Arbor).

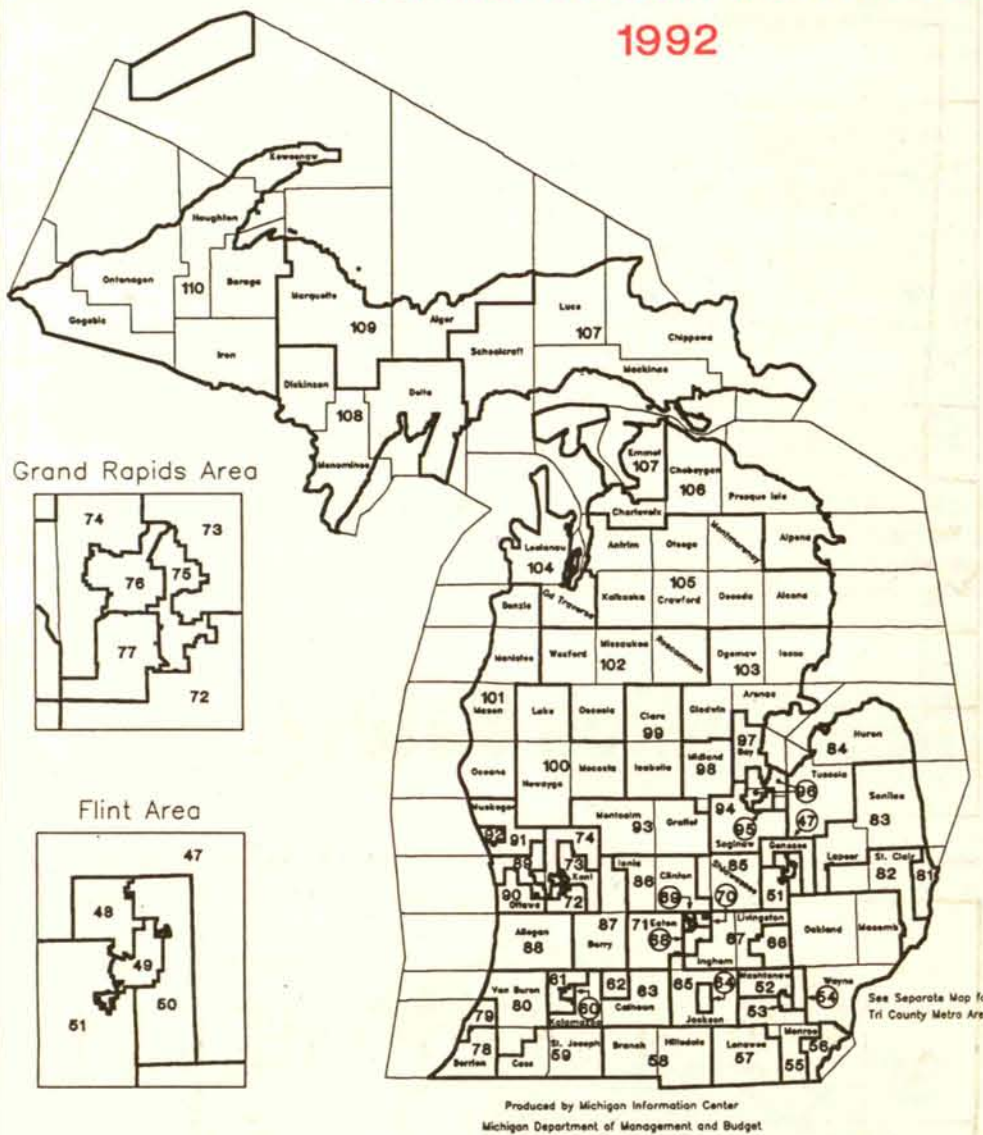
The overall impact of re-apportionment should be beneficial to agriculture, according to MFB Public Affairs Director Al Almy. As a result of population shifts to more rural areas, Almy expects the number of legislators with farm constituents will grow, resulting in a broader awareness of agricultural issues.

Reapportionment will provide county Farm Bureau Candidate Evaluation committees and members with special opportunities to review qualifications of new candidates to determine which will best address agricultural issues, in general, and Farm Bureau policy, specifically.

The committees will then recommend candidates to the MFB AgriPac committee, which will announce its final decisions on July 7.

Almy says Farm Bureau members should carefully review the endorsements that result from this evaluation process and support those candidates endorsed as "Friends of Agriculture."

STATE HOUSE DISTRICTS 1992



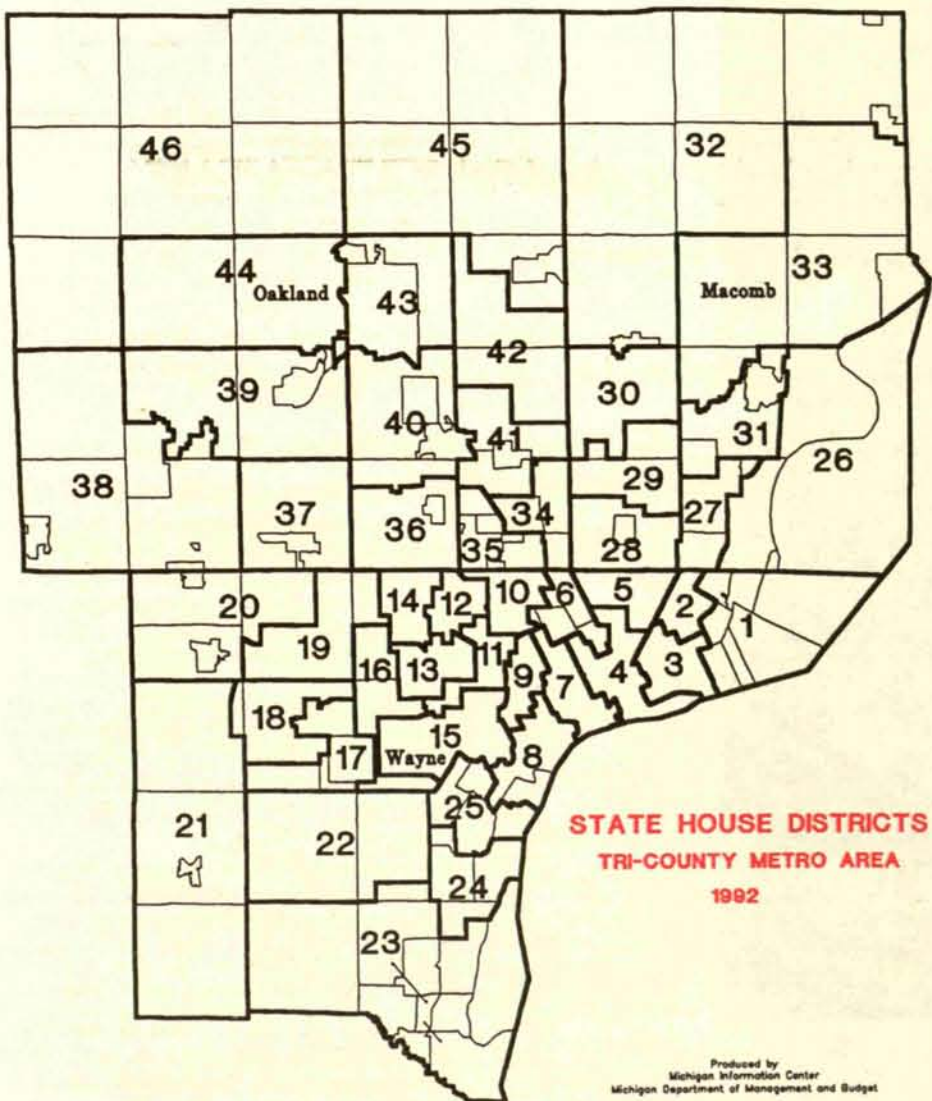
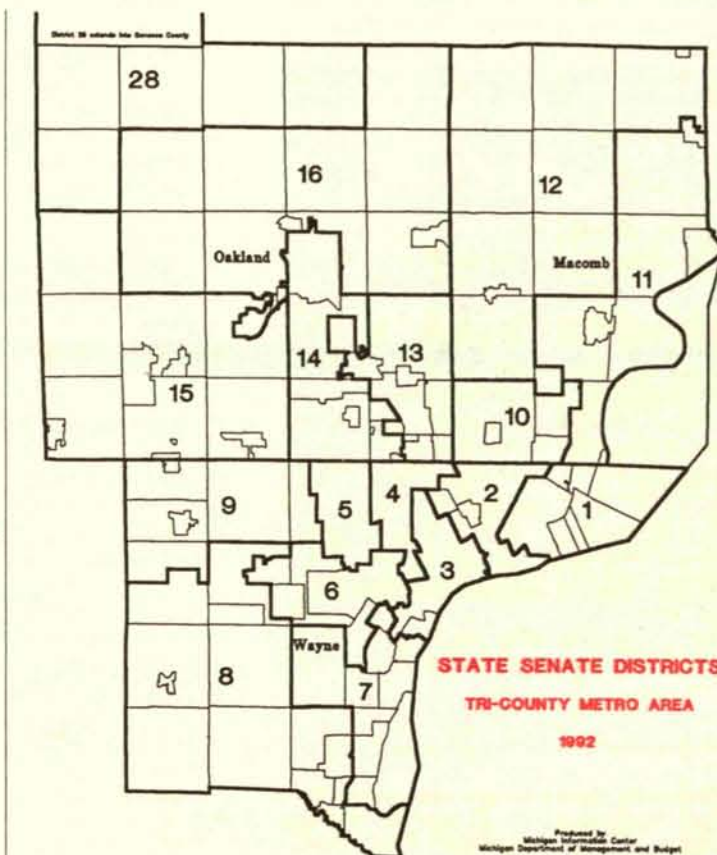
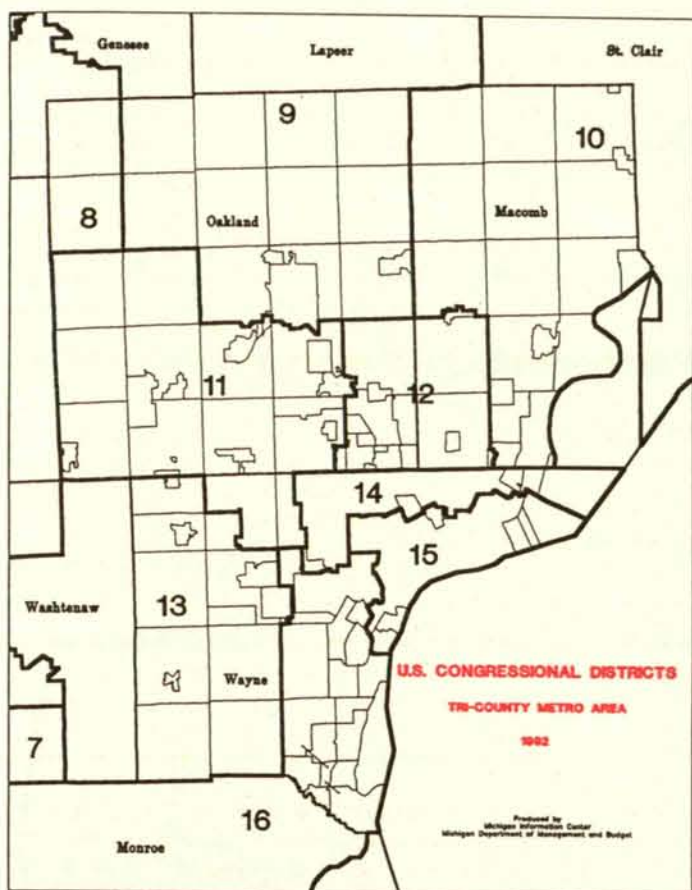
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Farm Bureau Leader Testifies on US-23 Bypass

A southern bypass of U.S.-23 around Standish would provide both an efficient and safe route to northeast Michigan, testified the president of the Arenac County Farm Bureau before the Michigan Transportation Commission in Lansing. "Our organization supports this alternative and asks that it be given every consideration," said Jerry Golimbieski. "We want economic growth in northeast Michigan and we believe that highway improvements are an important step toward making it happen."

Golimbieski said that highway improvements in northeast Michigan are long overdue. "Farmers rely on highways to transport planting and harvesting materials and to move their produce to processing centers and markets. U.S.-23, which runs adjacent to the Lake Huron shoreline, is a critical highway to farm trucking and to many businesses which transport to cities along the east side of the state," he said.

More than 18,000 vehicles travel the section of U.S.-23 between Standish and Omer each day, testified Golimbieski, with seasonal traffic volumes as high as 35,000 vehicles per day. "Maneuvering large truckloads of equipment and produce through the volumes of traffic can be hazardous," he said.

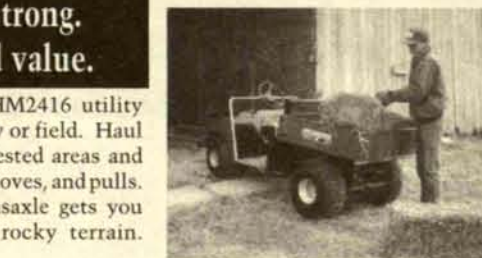
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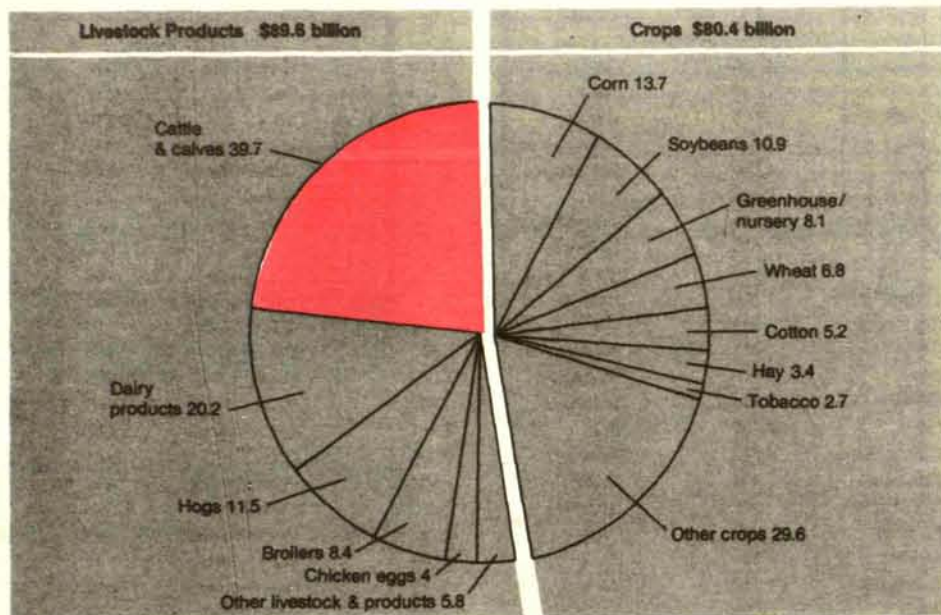
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Livestock Cash Receipts Outshine Crops

Cattle and Calves Topped the List of U.S. Farm Commodities By Cash Receipts in 1990



Amber waves of grain may symbolize America the Beautiful, but that's not the whole story of our nation's farm economy.

Grain crops take a back seat to livestock and livestock products in the rankings of farm commodities by value of production. In fact, cattle and calves are the leading agricultural commodity in the United States, says a recent issue of the Agriculture Department's *FARMLINE* magazine.

In 1990, the latest year for which data is available, cattle and calves were the number one farm product in 18 states, based on total cash farm receipts. Dairy products ranked first in nine states.

Of the nearly \$170 billion in agricultural cash receipts for the year, livestock and products accounted for 52.7 percent, or \$89.6 billion, while crops brought in \$80.4 billion, according to USDA's Economic Research Service.

Cattle and calves generated 23.3 percent of U.S. farm cash receipts, dairy products 11.8 percent, corn 8.0 percent, hogs 6.7 percent, and soybeans 6.4 percent. Twenty-two com-

modities had at least \$1 billion worth of product in 1990.

Broilers were the leading commodity in five states, greenhouse and nursery products in five, corn in three, tobacco in three, cotton in two, and wheat, hogs, oranges, sugar cane, and potatoes in one each.

In 33 states, the number one commodity was in the livestock category, while crop commodities led the lists in just 17 states. Thirteen states got a least 50 percent of their farm cash receipts from one commodity--and in seven of those states, that leading commodity was cattle and calves.

In Michigan, crop receipts totaled \$1.8 billion or 56 percent of the total cash receipts while livestock products amounted to \$1.4 billion. Dairy receipts totaled \$729.5 million and accounted for over 50 percent of the total livestock receipts. Cattle and calf receipts totaled \$256.6 million, while hogs receipts reached \$249.8 million.

Michigan's top three cash crop receipts were corn at \$369.2 million, greenhouse and nursery at \$263.9 million, and soybeans at \$233.8 million. According to MFB Commodity Specialist Bob Boehm, Michigan's diverse agricultural industry has 24 different commodities with annual cash receipts in excess of \$12 million each.

Vermont got 76 percent of its farm cash receipts from dairying, and Wyoming got 72 percent of its total from cattle and calves. The \$58 billion total for cattle and calves in Texas was the largest amount for a single commodity. The next two largest totals were also for cattle and calves--\$4.8 billion in Nebraska and \$4.3 billion in Kansas.

California had five commodities worth at least \$1 billion (dairy products, greenhouse and nursery, cattle and calves, grapes, and cotton), Iowa four (hogs, corn, cattle and calves, and soybeans), Illinois three (corn, soybeans, and hogs), Minnesota three (dairy products, corn, and soybeans), Kansas two (cattle and calves and wheat), Nebraska two (cattle and calves and corn), and Texas two (cattle and calves and cotton).

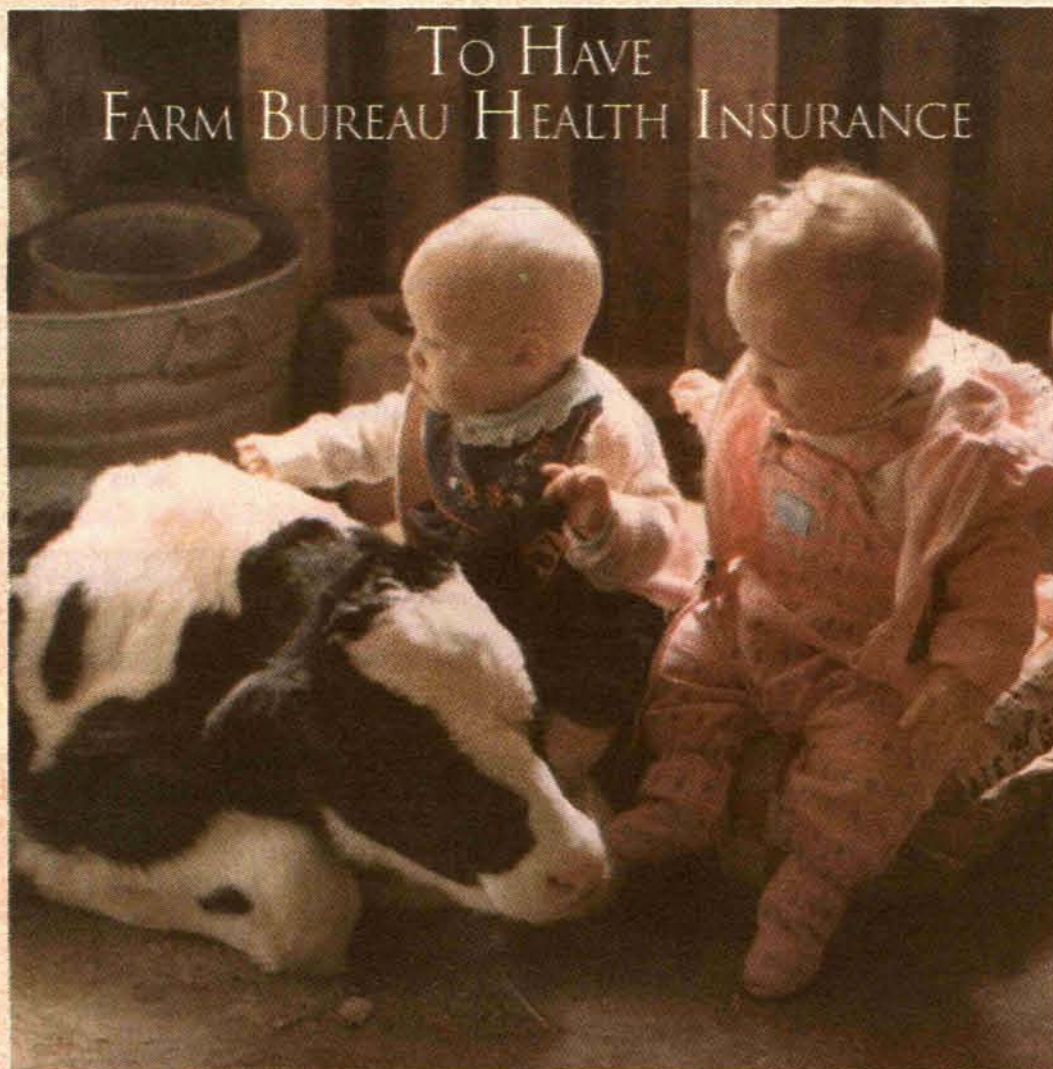
The states with a single billion-dollar commodity were Alabama, Arkansas, and Georgia, broilers; Colorado, Oklahoma, and South Dakota, cattle and calves; Florida, oranges; Indiana, corn; New York, Pennsylvania, and Wisconsin, dairy products; and North Carolina, tobacco.

California led the way in state total cash receipts in 1990 with \$18.9 billion for all farm commodities. Texas followed with about \$12 billion and Iowa with more than \$10 billion.

Nebraska, Illinois, Minnesota, Kansas, Florida, and Wisconsin were the only other states with totals of at least \$5 billion. Thirty-six states had totals of at least \$1 billion.

Farm cash receipts in 1990 increased by about \$9 billion from 1989, with \$5.5 billion of that increase coming in livestock products.

A FEW SMALL REASONS



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